

NC Existing Building Code Ad-Hoc Committee

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

**Recommended Amendments for
the 2018 NC Existing
Building Code**

NORTH CAROLINA STATE BUILDING CODE COUNCIL
OCTOBER 12, 2016
www.ncbuildingcodes.com

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PREFACE

Introduction

Internationally, code officials recognize the need for a modern, up-to-date code addressing repair, alteration, addition or change of occupancy in existing buildings. The *International Existing Building Code*[®], in this 2015 edition, is designed to meet this need through model code regulations that safeguard the public health and safety in all communities, large and small.

This comprehensive existing building code establishes minimum regulations for existing buildings using prescriptive and performance-related provisions. It is founded on broad-based principles intended to encourage the use and reuse of existing buildings while requiring reasonable upgrades and improvements. This 2015 edition is fully compatible with all of the *International Codes*[®] (ICodes[®]) published by the International Code Council (ICC)[®], including the *International Building Code*[®], *International Energy Conservation Code*[®], *International Fire Code*[®], *International Fuel Gas Code*[®], *International Green Construction Code*[®], *International Mechanical Code*[®], *ICC Performance Code*[®], *International Plumbing Code*[®], *International Private Sewage Disposal Code*[®], *International Property Maintenance Code*[®], *International Residential Code*[®], *International Swimming Pool and Spa Code*[™], *International Wildland-Urban Interface Code*[®] and *International Zoning Code*[®].

The *International Existing Building Code* provisions provide many benefits, including the model code development process, which offers an international forum for building 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 Existing Building Code* (2003) was the culmination of an effort initiated in 2000 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 existing buildings 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 as well as other rehabilitation codes was utilized as the basis for the development, followed by a public forum in 2001 and the publication of the 2001 Final Draft. This 2015 edition presents the code as originally issued in 2003 with the changes reflected in the 2006 edition, 2009 edition, 2012 edition and with further changes approved through the ICC code development process through 2013. A new edition such as this is promulgated every 3 years.

This code is founded on principles intended to encourage the use and reuse of existing buildings that adequately protect 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 the ICC to fund its mission through sales of books, in both print and electronic formats. The *International Existing Building 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 nondownloadable form on the ICC's website. Jurisdictions should contact the ICC at adoptions@iccsafe.org to learn how to adopt and distribute laws based on the *International Existing Building Code* in a manner that provides necessary access, while maintaining the ICC's copyright.

Maintenance

The *International Existing Building 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 Existing Building 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 this code are considered at the Committee Action Hearings by the International Existing Building Code Development Committee. Proposed changes to a code section having a number beginning with a letter in

brackets are considered by a different code development committee. For example, proposed changes to code sections that are preceded by the designation [F] (e.g., [F] 1404.2) are considered by the International Fire Code Development Committee at the Committee Action Hearings.

The content of sections in this code that begin with a letter designation is maintained by another code development committee in accordance with the following:

- [A] = Administrative Code Development Committee;
- [BE] = IBC – Means of Egress Code Development Committee;
- [BG] = IBC – General Code Development Committee;
- [BS] = IBC – Structural Code Development Committee;
- [EC] = International Energy Conservation Code Development Committee;
- [F] = International Fire Code Development Committee;
- [FG] = International Fuel Gas Code Development Committee;
- [M] = International Mechanical Code Development Committee; and
- [P] = International Plumbing Code Development Committee.

For the development of the 2018 edition of the I-Codes, there will be three groups of code development committees and they will meet in separate years. Note that these are tentative groupings.

Group A Codes (Heard in 2015, Code Change Proposals Deadline: January 12, 2015)	Group B Codes (Heard in 2016, Code Change Proposals Deadline: January 11, 2016)	Group C Codes (Heard in 2017, Code Change Proposals Deadline: January 11, 2017)
International Building Code – Fire Safety (Chapters 7, 8, 9, 14, 26) – Means of Egress (Chapters 10, 11, Appendix E) – General (Chapters 2-6, 12, 27-33, Appendices A, B, C, D, K)	Administrative Provisions (Chapter 1 of all codes except IRC and IECC, administrative updates to currently referenced standards, and designated definitions)	International Green Construction Code
International Fuel Gas Code	International Building Code – Structural (Chapters 15-25, Appendices F, G, H, I, J, L, M)	
International Existing Building Code	International Energy Conservation Code	
International Mechanical Code	International Fire Code	
International Plumbing Code	International Residential Code – IRC-B (Chapters 1-10, Appendices E, F, H, J, K, L, M, O, R, S, T, U)	
International Private Sewage Disposal Code	International Wildland-Urban Interface Code	
International Property Maintenance Code		

International Residential Code – IRC-Mechanical (Chapters 12-24) – IRC-Plumbing (Chapters 25-33, Appendices G, I, N, P)		
International Swimming Pool and Spa Code		
International Zoning Code		

Note: Proposed changes to the ICC *Performance Code* will be heard by the code development committee noted in brackets [] in the text of the code.

Code change proposals submitted for code sections that have a letter designation in front of them will be heard by the respective committee responsible for such code sections. Because different committees hold code development hearings in different years, it is possible that some proposals for this code will be heard by a committee in a different year than the year in which the primary committee for this code meets.

For instance, Section 606.2.3 is designated as the responsibility of the International Building Code Development Committee (Structural), along with all structural related provisions of the IEBC. This committee will conduct its code development hearings in 2015 to consider all code change proposals to the *International Building Code* and any portions of other codes that it is responsible for, including Section 606.2.3 of the IEBC and other structural provisions of the IEBC (designated with [BS] in front of those sections). Therefore, any proposals received for Section 606.2.3 will be considered in 2015 by the IBC - Structural Code Development Committee.

Another example is that every section of Chapter 1 of this code is designated as the responsibility of the Administrative Code Development Committee. That committee is part of the Group B code hearings. This committee will conduct its code development hearings in 2016 to consider all code change proposals for Chapter 1 of this code and proposals for Chapter 1 of all I-Codes except the IECC, IRC and ICC *Performance Code*. Therefore, any proposals received for Chapter 1 of this code will be deferred for consideration in 2015 by the Administrative Code Development Committee.

It is very important that anyone submitting code change proposals understand which code development committee is responsible for the section of the code that is the subject of the code change proposal. For further information on the code development committee responsibilities, please visit the ICC website at www.iccsafe.org/scoping.

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

indicates a technical change to the *2018 North Carolina Existing Building Code* from the requirements of the 2015 edition of the *International Existing Building 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 Existing Building Code*.

2015 LOCATION	2012 LOCATION
302.5	501.3
1105.2	806.3
1105.3	806.4
1105.4	806.5

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.

CHAPTER 1

SCOPE AND ADMINISTRATION

PART 1—SCOPE AND APPLICATION

SECTION 101

GENERAL

[A] 101.1 Title.

These regulations shall be known as the North Carolina Existing Building Code of ~~[NAME OF JURISDICTION]~~ as adopted by the North Carolina Building Code Council on Month Day, Year to be effective Month Day, Year, hereinafter referred to as “this code.” References to the International Codes shall mean the North Carolina Codes. The North Carolina amendments to the International Code are underlined.

[A] 101.4.1 Buildings not previously *legally occupied*.

A building or portion of a building that has not been previously *legally occupied* or used for its intended purpose in accordance with the laws in existence at the time of its completion shall be permitted to comply with the provisions of the laws in existence at the time of its original permit unless such permit has expired. Subsequent permits shall comply with the *International Building Code* or *International Residential Code*, as applicable, for new construction.

[A] 101.4.2 Buildings previously *legally occupied*.

The legal occupancy of any building existing on the date of adoption of this code shall be permitted to continue without change, except as is specifically covered in this code, the *International Fire Code*, ~~or the International Property Maintenance Code~~, or as is deemed necessary by the *code official* for the general safety and welfare of the occupants and the public.

[A] 101.6 Appendices.

Provisions in the appendices shall not apply unless specifically adopted or referenced in this code. ~~The code official is authorized to require rehabilitation and retrofit of buildings, structures or individual structural members in accordance with the appendices of this code if such appendices have been individually adopted.~~

101.8 Requirements of other State agencies, occupational licensing boards or commissions.

The North Carolina State Building Codes do not include all additional requirements for buildings and structures that may be imposed by other State agencies, occupational licensing boards and commissions. It shall be the responsibility of a permit holder, registered design professional, contractor or occupational license holder to determine whether any additional requirements exist.

101.9 Mixed use buildings.

Each portion of a building shall be separately classified as to use. The requirements of this code shall apply to each portion of the building based on the *occupancy classification* of that portion, except that the most restrictive requirements of this code for fire suppression shall apply to the entire building.

Exception: An automatic fire suppression system shall not be required for uses that would not otherwise require suppression provided that there is a 1-hour separation between the uses requiring suppression and the other uses in the same building. A 2-hour fire separation shall be required to apply this exception to Group H.

101.10 High-rise buildings.

High-rise buildings constructed prior to 1978 shall at a minimum comply with North Carolina General Statute 143-138, Section (i). The statute may be viewed at the following web address: http://www.ncga.state.nc.us/EnactedLegislation/Statutes/HTML/BySection/Chapter_143/GS_143-138.html.

101.11. Accessibility for townhouses.

In townhouses, where there are four or more dwelling units in a single structure, the provisions for accessibility of this code for Group R-3 shall apply.

PART 2—ADMINISTRATION AND ENFORCEMENT

SECTION 103 DEPARTMENT OF BUILDING SAFETY

Deleted. See the *North Carolina Administrative Code and Policies*.

~~[A] 103.1 Creation of enforcement agency.~~

~~The Department of Building Safety is hereby created, and the official in charge thereof shall be known as the *code official*.~~

~~[A] 103.2 Appointment.~~

~~The *code official* shall be appointed by the chief appointing authority of the jurisdiction.~~

~~[A] 103.3 Deputies.~~

~~In accordance with the prescribed procedures of this jurisdiction and with the concurrence of the appointing authority, the *code official* shall have the authority to appoint a deputy *code official*, the related technical officers, inspectors, plan examiners, and other employees. Such employees shall have powers as delegated by the *code official*.~~

SECTION 104 DUTIES AND POWERS OF CODE OFFICIAL

104.1 General through 104.9 Approved materials and equipment.

Deleted. See the *North Carolina Administrative Code and Policies*.

~~[A] 104.1 General.~~

~~The *code official* is hereby authorized and directed to enforce the provisions of this code. The~~

~~code official shall have the authority to render interpretations of this code and to adopt policies and procedures in order to clarify the application of its provisions. Such interpretations, policies, and procedures shall be in compliance with the intent and purpose of this code. Such policies and procedures shall not have the effect of waiving requirements specifically provided for in this code.~~

[A] 104.2 Applications and permits.

~~The code official shall receive applications, review construction documents, and issue permits for the repair, alteration, addition, demolition, change of occupancy, and relocation of buildings; inspect the premises for which such permits have been issued; and enforce compliance with the provisions of this code.~~

[A] 104.2.1 Determination of substantially improved or substantially damaged existing buildings and structures in flood hazard areas.

~~For applications for reconstruction, rehabilitation, repair, alteration, addition or other improvement of existing buildings or structures located in flood hazard areas, the building official shall determine where the proposed work constitutes substantial improvement or repair of substantial damage. Where the building official determines that the proposed work constitutes substantial improvement or repair of substantial damage, and where required by this code, the building official shall require the building to meet the requirements of Section 1612 of the *International Building Code*.~~

[A] 104.2.2 Preliminary meeting.

~~When requested by the permit applicant or the code official, the code official shall meet with the permit applicant prior to the application for a construction permit to discuss plans for the proposed work or change of occupancy in order to establish the specific applicability of the provisions of this code.~~

Exception: ~~Repairs and Level 1 alterations.~~

[A] 104.2.2.1 Building evaluation.

~~The code official is authorized to require an existing building to be investigated and evaluated by a registered design professional based on the circumstances agreed upon at the preliminary meeting. The design professional shall notify the code official if any potential nonconformance with the provisions of this code is identified.~~

[A] 104.3 Notices and orders.

~~The code official shall issue necessary notices or orders to ensure compliance with this code.~~

[A] 104.4 Inspections.

~~The code official shall make the required inspections, or the code official shall have the authority to accept reports of inspection by approved agencies or individuals. Reports of such inspections shall be in writing and be certified by a responsible officer of such approved agency or by the responsible individual. The code official is authorized to engage such expert opinion as deemed necessary to report upon unusual technical issues that arise, subject to the approval of the appointing authority.~~

[A] 104.5 Identification.

~~The code official shall carry proper identification when inspecting structures or premises in the performance of duties under this code.~~

~~[A] 104.6 Right of entry.~~

~~Where it is necessary to make an inspection to enforce the provisions of this code, or where the *code official* has reasonable cause to believe that there exists in a structure or upon a premises a condition that is contrary to or in violation of this code that makes the structure or premises unsafe, dangerous, or hazardous, the *code official* is authorized to enter the structure or premises at reasonable times to inspect or to perform the duties imposed by this code, provided that if such structure or premises be occupied that credentials be presented to the occupant and entry requested. If such structure or premises be unoccupied, the *code official* shall first make a reasonable effort to locate the owner, the owner's authorized agent or other person having charge or control of the structure or premises and request entry. If entry is refused, the *code official* shall have recourse to the remedies provided by law to secure entry.~~

~~[A] 104.7 Department records.~~

~~The *code official* shall keep official records of applications received, permits and certificates issued, fees collected, reports of inspections, and notices and orders issued. Such records shall be retained in the official records for the period required for retention of public records.~~

~~[A] 104.8 Liability.~~

~~The *code official*, member of the Board of Appeals, or employee charged with the enforcement of this code, while acting for the jurisdiction in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance, shall not thereby be rendered civilly or criminally liable personally and is hereby relieved from personal liability for any damage accruing to persons or property as a result of any act or by reason of an act or omission in the discharge of official duties.~~

~~[A] 104.8.1 Legal defense.~~

~~Any suit or criminal complaint instituted against an officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be defended by legal representatives of the jurisdiction until the final termination of the proceedings. The *code official* or any subordinate shall not be liable for cost in any action, suit, or proceeding that is instituted in pursuance of the provisions of this code.~~

~~[A] 104.9 Approved materials and equipment.~~

~~Materials, equipment, and devices approved by the *code official* shall be constructed and installed in accordance with such approval.~~

~~[A] 104.9.1 Used materials and equipment.~~

~~The use of used materials that meet the requirements of this code for new materials is permitted. Used equipment and devices shall be permitted to be reused subject to the approval of the *code official*.~~

[A] 104.10 Modifications.

Wherever there are practical difficulties involved in carrying out the provisions of this code, the *code official* shall have the authority to grant modifications for individual cases upon application of the owner or owner's authorized representative, provided the *code official* shall first find that special individual reason makes the strict letter of this code impractical, the modification is in compliance with the intent and purpose of this code and such modification does not lessen health, accessibility, life and fire safety, or structural requirements. The details of action granting modifications shall be recorded and entered in the files of the Department of Building Safety.

[A] 104.10.1 Flood hazard areas.

For *existing buildings* located in *flood hazard areas* for which *repairs, alterations* and *additions* constitute *substantial improvement*, the *code official* shall not grant modifications to provisions related to flood resistance unless a determination is made that:

1. The applicant has presented good and sufficient cause that the unique characteristics of the size, configuration or topography of the site render compliance with the flood-resistant construction provisions inappropriate.
2. Failure to grant the modification would result in exceptional hardship.
3. The granting of the modification will not result in increased flood heights, additional threats to public safety, extraordinary public expense nor create nuisances, cause fraud on or victimization of the public or conflict with existing laws or ordinances.
4. The modification is the minimum necessary to afford relief, considering the flood hazard.
5. A written notice will be provided to the applicant specifying, if applicable, the difference between the design flood elevation and the elevation to which the building is to be built, stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced floor elevation and that construction below the design flood elevation increases risks to life and property.

Local ordinances more restrictive than the requirements of this section supersede these requirements.

**SECTION 105
PERMITS**

Deleted. See the *North Carolina Administrative Code and Policies.*

~~[A] 105.1 Required.~~

~~Any owner or owner's authorized agent who intends to repair, add to, alter, relocate, demolish, or change the occupancy of a building or to repair, install, add, alter, remove, convert, or replace any electrical, gas, mechanical, or plumbing system, the installation of which is regulated by this code, or to cause any such work to be performed, shall first make application to the *code official* and obtain the required permit.~~

~~[A] 105.1.1 Annual permit.~~

~~Instead of an individual permit for each *alteration* to an already approved electrical, gas, mechanical, or plumbing installation, the *code official* is authorized to issue an annual permit upon application therefor to any person, firm, or corporation regularly employing one or more qualified trade persons in the building, structure, or on the premises owned or operated by the applicant for the permit.~~

~~[A] 105.1.2 Annual permit records.~~

~~The person to whom an annual permit is issued shall keep a detailed record of *alterations* made under such annual permit. The *code official* shall have access to such records at all times, or such records shall be filed with the *code official* as designated.~~

[A] 105.2 Work exempt from permit.

Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:

Building:

1. ~~Sidewalks and driveways not more than 30 inches (762 mm) above grade and not over any basement or story below and that are not part of an accessible route.~~
2. ~~Painting, papering, tiling, carpeting, cabinets, counter tops, and similar finish work.~~
3. ~~Temporary motion picture, television, and theater stage sets and scenery.~~
4. ~~Shade cloth structures constructed for nursery or agricultural purposes, and not including service systems.~~
5. ~~Window awnings supported by an exterior wall of Group R-3 or Group U occupancies.~~
6. ~~Movable cases, counters, and partitions not over 69 inches (1753 mm) in height.~~

Electrical:

Repairs and maintenance: ~~Minor *repair* work, including the replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles.~~

Radio and television transmitting stations: ~~The provisions of this code shall not apply to electrical equipment used for radio and television transmissions, but do apply to equipment and wiring for power supply, the installations of towers, and antennas.~~

Temporary testing systems: ~~A permit shall not be required for the installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.~~

Gas:

1. ~~Portable heating appliance.~~
2. ~~Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.~~

Mechanical:

1. ~~Portable heating appliance.~~
2. ~~Portable ventilation equipment.~~

- ~~3.—Portable cooling unit.~~
- ~~4.—Steam, hot, or chilled water piping within any heating or cooling equipment regulated by this code.~~
- ~~5.—Replacement of any part that does not alter its approval or make it unsafe.~~
- ~~6.—Portable evaporative cooler.~~
- ~~7.—Self-contained refrigeration system containing 10 pounds (4.54 kg) or less of refrigerant and actuated by motors of 1 horsepower (746 W) or less.~~

Plumbing:

- ~~1.—The stopping of leaks in drains, water, soil, waste, or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste, or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work, and a permit shall be obtained and inspection made as provided in this code.~~
- ~~2.—The clearing of stoppages or the repairing of leaks in pipes, valves, or fixtures, and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes, or fixtures.~~

[A] 105.2.1 Emergency repairs.

~~Where equipment replacements and repairs must be performed in an emergency situation, the permit application shall be submitted within the next working business day to the code official.~~

[A] 105.2.2 Repairs.

~~Application or notice to the code official is not required for ordinary repairs to structures and items listed in Section 105.2. Such repairs shall not include the cutting away of any wall, partition, or portion thereof, the removal or cutting of any structural beam or load-bearing support, or the removal or change of any required means of egress or rearrangement of parts of a structure affecting the egress requirements; nor shall ordinary repairs include addition to, alteration of, replacement, or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas, soil, waste, vent, or similar piping, electric wiring, or mechanical or other work affecting public health or general safety.~~

[A] 105.2.3 Public service agencies.

~~A permit shall not be required for the installation, alteration, or repair of generation, transmission, distribution, or metering or other related equipment that is under the ownership and control of public service agencies by established right.~~

[A] 105.3 Application for permit.

~~To obtain a permit, the applicant shall first file an application therefor in writing on a form furnished by the Department of Building Safety for that purpose. Such application shall:~~

- ~~1. Identify and describe the work in accordance with Chapter 3 to be covered by the permit for which application is made.~~
- ~~2. Describe the land on which the proposed work is to be done by legal description, street address, or similar description that will readily identify and definitely locate the proposed building or work.~~
- ~~3. Indicate the use and occupancy for which the proposed work is intended.~~
- ~~4. Be accompanied by construction documents and other information as required in Section 106.3.~~
- ~~5. State the valuation of the proposed work.~~
- ~~6. Be signed by the applicant or the applicant's authorized agent.~~
- ~~7. Give such other data and information as required by the *code official*.~~

[A] 105.3.1 Action on application.

~~The *code official* shall examine or cause to be examined applications for permits and amendments thereto within a reasonable time after filing. If the application or the construction documents do not conform to the requirements of pertinent laws, the *code official* shall reject such application in writing, stating the reasons therefor. If the *code official* is satisfied that the proposed work conforms to the requirements of this code and laws and ordinances applicable thereto, the *code official* shall issue a permit therefor as soon as practicable.~~

[A] 105.3.2 Time limitation of application.

~~An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the *code official* is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each. The extension shall be requested in writing and justifiable cause demonstrated.~~

[A] 105.4 Validity of permit.

~~The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this code or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of this code or other ordinances of the jurisdiction shall not be valid. The issuance of a permit based on construction documents and other data shall not prevent the *code official* from requiring the correction of errors in the construction documents and other data. The *code official* is authorized to prevent occupancy or use of a structure where in violation of this code or of any other ordinances of this jurisdiction.~~

[A] 105.5 Expiration.

~~Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. The *code official* is authorized to grant, in writing, one or more extensions of time~~

for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

[A] 105.6 Suspension or revocation.

The *code official* is authorized to suspend or revoke a permit issued under the provisions of this code wherever the permit is issued in error or on the basis of incorrect, inaccurate, or incomplete information or in violation of any ordinance or regulation or any of the provisions of this code.

[A] 105.7 Placement of permit.

The building permit or copy shall be kept on the site of the work until the completion of the project.

SECTION 106 CONSTRUCTION DOCUMENTS

Deleted. See the *North Carolina Administrative Code and Policies.*

[A] 106.1 General.

Submittal documents consisting of construction documents, special inspection and structural observation programs, investigation and evaluation reports, and other data shall be submitted in two or more sets with each application for a permit. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the *code official* is authorized to require additional construction documents to be prepared by a registered design professional.

Exception: The *code official* is authorized to waive the submission of construction documents and other data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that reviewing of construction documents is not necessary to obtain compliance with this code.

[A] 106.2 Construction documents.

Construction documents shall be in accordance with Sections 106.2.1 through 106.2.5.

[A] 106.2.1 Construction documents.

Construction documents shall be dimensioned and drawn upon suitable material. Electronic media documents are permitted to be submitted where approved by the *code official*. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the *code official*. The work areas shall be shown.

[A] 106.2.2 Fire protection system(s) shop drawings.

Shop drawings for the fire protection system(s) shall be submitted to indicate conformance with this code and the construction documents and shall be approved prior to the start of system installation. Shop drawings shall contain information as required by the referenced installation standards in Chapter 9 of the *International Building Code*.

~~[A] 106.2.3 Means of egress.~~

~~The construction documents for *Alterations—Level 2, Alterations—Level 3, additions and changes of occupancy* shall show in sufficient detail the location, construction, size and character of all portions of the means of egress in compliance with the provisions of this code. The construction documents shall designate the number of occupants to be accommodated in every *work area* of every floor and in all affected rooms and spaces.~~

~~[A] 106.2.4 Exterior wall envelope.~~

~~Construction documents for work affecting the exterior wall envelope shall describe the exterior wall envelope in sufficient detail to determine compliance with this code. The construction documents shall provide details of the exterior wall envelope as required, including windows, doors, flashing, intersections with dissimilar materials, corners, end details, control joints, intersections at roof, eaves, or parapets, means of drainage, water-resistive membrane, and details around openings.~~

~~The construction documents shall include manufacturer's installation instructions that provide supporting documentation that the proposed penetration and opening details described in the construction documents maintain the wind and weather resistance of the exterior wall envelope. The supporting documentation shall fully describe the exterior wall system that was tested, where applicable, as well as the test procedure used.~~

~~[A] 106.2.5 Site plan.~~

~~The construction documents submitted with the application for permit shall be accompanied by a site plan showing to scale the size and location of new construction and existing structures on the site, distances from lot lines, the established street grades, and the proposed finished grades; and it shall be drawn in accordance with an accurate boundary line survey. In the case of demolition, the site plan shall show construction to be demolished and the location and size of existing structures and construction that are to remain on the site or plot. The *code official* is authorized to waive or modify the requirement for a site plan where the application for permit is for *alteration, repair or change of occupancy*.~~

~~[A] 106.3 Examination of documents.~~

~~The *code official* shall examine or cause to be examined the submittal documents and shall ascertain by such examinations whether the construction or occupancy indicated and described is in accordance with the requirements of this code and other pertinent laws or ordinances.~~

~~[A] 106.3.1 Approval of construction documents.~~

~~Where the *code official* issues a permit, the construction documents shall be approved in writing or by stamp as "Reviewed for Code Compliance." One set of construction documents so reviewed shall be retained by the *code official*. The other set shall be returned to the applicant, shall be kept at the site of work, and shall be open to inspection by the *code official* or a duly authorized representative.~~

~~[A] 106.3.2 Previous approval.~~

~~This code shall not require changes in the construction documents, construction or designated occupancy of a structure for which a lawful permit has been issued and the construction of which has been pursued in good faith within 180 days after the effective date of this code and has not been abandoned.~~

~~[A] 106.3.3 Phased approval.~~

~~The *code official* is authorized to issue a permit for the construction of foundations or any~~

~~other part of a building before the construction documents for the whole building or structure have been submitted, provided that adequate information and detailed statements have been filed complying with pertinent requirements of this code. The holder of such permit for the foundation or other parts of a building shall proceed at the holder's own risk with the building operation and without assurance that a permit for the entire structure will be granted.~~

~~[A] 106.3.4 Deferred submittals.~~

~~Deferral of any submittal items shall have the prior approval of the *code official*. The *registered design professional in responsible charge* shall list the deferred submittals on the construction documents for review by the *code official*.~~

~~Submittal documents for deferred submittal items shall be submitted to the *registered design professional in responsible charge* who shall review them and forward them to the *code official* with a notation indicating that the deferred submittal documents have been reviewed and that they have been found to be in general conformance to the design of the building. The deferred submittal items shall not be installed until their deferred submittal documents have been approved by the *code official*.~~

~~[A] 106.4 Amended construction documents.~~

~~Work shall be installed in accordance with the reviewed construction documents, and any changes made during construction that are not in compliance with the approved construction documents shall be resubmitted for approval as an amended set of construction documents.~~

~~[A] 106.5 Retention of construction documents.~~

~~One set of approved construction documents shall be retained by the *code official* for a period of not less than the period required for retention of public records.~~

~~[A] 106.6 Design professional in responsible charge.~~

~~Where it is required that documents be prepared by a registered design professional, the *code official* shall be authorized to require the owner or the owner's authorized agent to engage and designate on the building permit application a registered design professional who shall act as the *registered design professional in responsible charge*. If the circumstances require, the owner or the owner's authorized agent shall designate a substitute *registered design professional in responsible charge* who shall perform the duties required of the original *registered design professional in responsible charge*. The *code official* shall be notified in writing by the owner or the owner's authorized agent if the *registered design professional in responsible charge* is changed or is unable to continue to perform the duties. The *registered design professional in responsible charge* shall be responsible for reviewing and coordinating submittal documents prepared by others, including phased and deferred submittal items, for compatibility with the design of the building. Where structural observation is required, the inspection program shall name the individual or firms who are to perform structural observation and describe the stages of construction at which structural observation is to occur.~~

SECTION 107 TEMPORARY STRUCTURES AND USES

Deleted. See the *North Carolina Administrative Code and Policies*.

~~[A] 107.1 General.~~

~~The *code official* is authorized to issue a permit for temporary uses. Such permits shall be limited as to time of service but shall not be permitted for more than 180 days. The *code official* is authorized to grant extensions for demonstrated cause.~~

~~[A] 107.2 Conformance.~~

~~Temporary uses shall conform to the structural strength, fire safety, means of egress, accessibility, light, ventilation and sanitary requirements of this code as necessary to ensure the public health, safety and general welfare.~~

~~[A] 107.3 Temporary power.~~

~~The *code official* is authorized to give permission to temporarily supply and use power in part of an electric installation before such installation has been fully completed and the final certificate of completion has been issued. The part covered by the temporary certificate shall comply with the requirements specified for temporary lighting, heat or power in NFPA 70.~~

~~[A] 107.4 Termination of approval.~~

~~The *code official* is authorized to terminate such permit for a temporary use and to order the temporary use to be discontinued.~~

SECTION 108 FEES

Deleted. See the *North Carolina Administrative Code and Policies*.

~~[A] 108.1 Payment of fees.~~

~~A permit shall not be valid until the fees prescribed by law have been paid. Nor shall an amendment to a permit be released until the additional fee, if any, has been paid.~~

~~[A] 108.2 Schedule of permit fees.~~

~~On buildings, electrical, gas, mechanical, and plumbing systems or *alterations* requiring a permit, a fee for each permit shall be paid as required in accordance with the schedule as established by the applicable governing authority.~~

~~[A] 108.3 Building permit valuations.~~

~~The applicant for a permit shall provide an estimated permit value at time of application. Permit valuations shall include total value of work including materials and labor for which the permit is being issued, such as electrical, gas, mechanical, plumbing equipment, and permanent systems. If, in the opinion of the *code official*, the valuation is underestimated on the application, the permit shall be denied unless the applicant can show detailed estimates to meet the approval of the *code official*. Final building permit valuation shall be set by the *code official*.~~

~~[A] 108.4 Work commencing before permit issuance.~~

~~Any person who commences any work before obtaining the necessary permits shall be subject to an additional fee established by the *code official* that shall be in addition to the required permit fees.~~

~~[A] 108.5 Related fees.~~

~~The payment of the fee for the construction, *alteration*, removal, or demolition of work done in~~

~~connection to or concurrently with the work authorized by a building permit shall not relieve the applicant or holder of the permit from the payment of other fees that are prescribed by law.~~

~~[A] 108.6 Refunds.~~

~~The code official is authorized to establish a refund policy.~~

SECTION 109 INSPECTIONS

Deleted. See the North Carolina Administrative Code and Policies.

~~[A] 109.1 General.~~

~~Construction or work for which a permit is required shall be subject to inspection by the code official, and such construction or work shall remain accessible and exposed for inspection purposes until approved. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction. Inspections presuming to give authority to violate or cancel the provisions of this code or of other ordinances of the jurisdiction shall not be valid. It shall be the duty of the permit applicant to cause the work to remain accessible and exposed for inspection purposes. Neither the code official nor the jurisdiction shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.~~

~~[A] 109.2 Preliminary inspection.~~

~~Before issuing a permit, the code official is authorized to examine or cause to be examined buildings and sites for which an application has been filed.~~

~~[A] 109.3 Required inspections.~~

~~The code official, upon notification, shall make the inspections set forth in Sections 109.3.1 through 109.3.9.~~

~~[A] 109.3.1 Footing or foundation inspection.~~

~~Footing and foundation inspections shall be made after excavations for footings are complete and any required reinforcing steel is in place. For concrete foundations, any required forms shall be in place prior to inspection. Materials for the foundation shall be on the job, except where concrete is ready-mixed in accordance with ASTM C 94, the concrete need not be on the job.~~

~~[A] 109.3.2 Concrete slab or under-floor inspection.~~

~~Concrete slab and under-floor inspections shall be made after in-slab or under-floor reinforcing steel and building service equipment, conduit, piping accessories, and other ancillary equipment items are in place but before any concrete is placed or floor sheathing installed, including the sub-floor.~~

~~[A] 109.3.3 Lowest floor elevation.~~

~~For additions and substantial improvements to existing buildings in flood hazard areas, upon placement of the lowest floor, including basement, and prior to further vertical construction, the elevation documentation required in the International Building Code shall be submitted to the code official.~~

~~[A] 109.3.4 Frame inspection.~~

~~Framing inspections shall be made after the roof deck or sheathing, framing, fire blocking, and bracing are in place and pipes, chimneys, and vents to be concealed are complete and the rough electrical, plumbing, heating wires, pipes, and ducts are approved.~~

~~[A] 109.3.5 Lath or gypsum board inspection.~~

~~Lath and gypsum board inspections shall be made after lathing and gypsum board, interior and exterior, is in place but before any plastering is applied or before gypsum board joints and fasteners are taped and finished.~~

~~Exception:~~ ~~Gypsum board that is not part of a fire-resistance-rated assembly or a shear assembly.~~

~~[A] 109.3.6 Fire and smoke-resistant penetrations.~~

~~Protection of joints and penetrations in fire-resistance-rated assemblies, smoke barriers and smoke partitions shall not be concealed from view until inspected and approved.~~

~~[A] 109.3.7 Other inspections.~~

~~In addition to the inspections specified above, the *code official* is authorized to make or require other inspections of any construction work to ascertain compliance with the provisions of this code and other laws that are enforced by the Department of Building Safety.~~

~~[A] 109.3.8 Special inspections.~~

~~Special inspections shall be required in accordance with the *International Building Code*.~~

~~[A] 109.3.9 Final inspection.~~

~~The final inspection shall be made after work required by the building permit is completed.~~

~~[A] 109.4 Inspection agencies.~~

~~The *code official* is authorized to accept reports of approved inspection agencies, provided such agencies satisfy the requirements as to qualifications and reliability.~~

~~[A] 109.5 Inspection requests.~~

~~It shall be the duty of the holder of the building permit or their duly authorized agent to notify the *code official* when work is ready for inspection. It shall be the duty of the permit holder to provide access to and means for any inspections of such work that are required by this code.~~

~~[A] 109.6 Approval required.~~

~~Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the *code official*. The *code official*, upon notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed or shall notify the permit holder or an agent of the permit holder wherein the same fails to comply with this code. Any portions that do not comply shall be corrected and such portion shall not be covered or concealed until authorized by the *code official*.~~

**SECTION 110
CERTIFICATE OF OCCUPANCY**

Deleted. See the *North Carolina Administrative Code and Policies*.

~~[A] 110.1 Altered area use and occupancy classification change.~~

~~Altered areas of a building and relocated buildings shall not be used or occupied, and change in the existing use or occupancy classification of a building or portion thereof shall not be made until the code official has issued a certificate of occupancy therefor as provided herein. Issuance of a certificate of occupancy shall not be construed as an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction.~~

~~[A] 110.2 Certificate issued.~~

~~After the code official inspects the building and does not find violations of the provisions of this code or other laws that are enforced by the Department of Building Safety, the code official shall issue a certificate of occupancy that shall contain the following:~~

- ~~1. The building permit number.~~
- ~~2. The address of the structure.~~
- ~~3. The name and address of the owner or the owner's authorized agent.~~
- ~~4. A description of that portion of the structure for which the certificate is issued.~~
- ~~5. A statement that the described portion of the structure has been inspected for compliance with the requirements of this code for the occupancy and division of occupancy and the use for which the proposed occupancy is classified.~~
- ~~6. The name of the code official.~~
- ~~7. The edition of the code under which the permit was issued.~~
- ~~8. The use and occupancy in accordance with the provisions of the *International Building Code*.~~
- ~~9. The type of construction as defined in the *International Building Code*.~~
- ~~10. The design occupant load and any impact the *alteration* has on the design occupant load of the area not within the scope of the work.~~
- ~~11. If fire protection systems are provided, whether the fire protection systems are required.~~
- ~~12. Any special stipulations and conditions of the building permit.~~

~~[A] 110.3 Temporary occupancy.~~

~~The code official is authorized to issue a temporary certificate of occupancy before the completion of the entire work covered by the permit, provided that such portion or portions shall be occupied safely. The code official shall set a time period during which the temporary certificate of occupancy is valid.~~

~~[A] 110.4 Revocation.~~

~~The code official is authorized to, in writing, suspend or revoke a certificate of occupancy or completion issued under the provisions of this code wherever the certificate is issued in error or~~

~~on the basis of incorrect information supplied, or where it is determined that the building or structure or portion thereof is in violation of any ordinance or regulation or any of the provisions of this code.~~

SECTION 111 SERVICE UTILITIES

~~Deleted. See the *North Carolina Administrative Code and Policies*.~~

~~[A] 111.1 Connection of service utilities.~~

~~A person shall not make connections from a utility, source of energy, fuel, or power to any building or system that is regulated by this code for which a permit is required, until approved by the code official.~~

~~[A] 111.2 Temporary connection.~~

~~The code official shall have the authority to authorize the temporary connection of the building or system to the utility source of energy, fuel, or power.~~

~~[A] 111.3 Authority to disconnect service utilities.~~

~~The code official shall have the authority to authorize disconnection of utility service to the building, structure or system regulated by this code and the referenced codes and standards in case of emergency where necessary to eliminate an immediate hazard to life or property or where such utility connection has been made without the approval required by Section 111.1 or 111.2. The code official shall notify the serving utility and, wherever possible, the owner or the owner's authorized agent and occupant of the building, structure or service system of the decision to disconnect prior to taking such action. If not notified prior to disconnecting, the owner or occupant of the building, structure or service system shall be notified in writing, as soon as practical thereafter.~~

SECTION 112 BOARD OF APPEALS

~~Deleted. See the *North Carolina Administrative Code and Policies*.~~

~~[A] 112.1 General.~~

~~In order to hear and decide appeals of orders, decisions, or determinations made by the code official relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The board of appeals shall be appointed by the governing body and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business.~~

~~[A] 112.2 Limitations on authority.~~

~~An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equally good or better form of construction is proposed. The board shall not have authority to waive requirements of this code.~~

~~[A] 112.3 Qualifications.~~

~~The board of appeals shall consist of members who are qualified by experience and training to pass on matters pertaining to building construction and are not employees of the jurisdiction.~~

SECTION 113 VIOLATIONS

Deleted. See the North Carolina Administrative Code and Policies.

[A] 113.1 Unlawful acts.

~~It shall be unlawful for any person, firm, or corporation to *repair*, alter, extend, add, move, remove, demolish, or change the occupancy of any building or equipment regulated by this code or cause same to be done in conflict with or in violation of any of the provisions of this code.~~

[A] 113.2 Notice of violation.

~~The *code official* is authorized to serve a notice of violation or order on the person responsible for the *repair, alteration, extension, addition, moving, removal, demolition, or change* in the occupancy of a building in violation of the provisions of this code or in violation of a permit or certificate issued under the provisions of this code. Such order shall direct the discontinuance of the illegal action or condition and the abatement of the violation.~~

[A] 113.3 Prosecution of violation.

~~If the notice of violation is not complied with promptly, the *code official* is authorized to request the legal counsel of the jurisdiction to institute the appropriate proceeding at law or in equity to restrain, correct, or abate such violation or to require the removal or termination of the unlawful occupancy of the building or structure in violation of the provisions of this code or of the order or direction made pursuant thereto.~~

[A] 113.4 Violation penalties.

~~Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who *repairs* or alters or changes the occupancy of a building or structure in violation of the approved construction documents or directive of the *code official* or of a permit or certificate issued under the provisions of this code shall be subject to penalties as prescribed by law.~~

SECTION 114 STOP WORK ORDER

Deleted. See the North Carolina Administrative Code and Policies.

[A] 114.1 Authority.

~~Whenever the *code official* finds any work regulated by this code being performed in a manner contrary to the provisions of this code or in a *dangerous* or unsafe manner, the *code official* is authorized to issue a stop work order.~~

[A] 114.2 Issuance.

~~The stop work order shall be in writing and shall be given to the owner of the property involved, the owner's authorized agent or to the person doing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order and the conditions under which the cited work will be permitted to resume.~~

[A] 114.3 Unlawful continuance.

~~Any person who shall continue any work after having been served with a stop work order,~~

~~except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to penalties as prescribed by law.~~

SECTION 115 UNSAFE BUILDINGS AND EQUIPMENT

~~Deleted. See the *North Carolina Administrative Code and Policies*.~~

[A] 115.1 Conditions.

~~Buildings, structures or equipment that are or hereafter become *unsafe*, shall be taken down, removed or made safe as the *code official* deems necessary and as provided for in this code.~~

[A] 115.2 Record.

~~The *code official* shall cause a report to be filed on an *unsafe* condition. The report shall state the occupancy of the structure and the nature of the *unsafe* condition.~~

[A] 115.3 Notice.

~~If an *unsafe* condition is found, the *code official* shall serve on the owner, the owner's authorized agent or person in control of the structure a written notice that describes the condition deemed *unsafe* and specifies the required *repairs* or improvements to be made to abate the *unsafe* condition, or that requires the *unsafe* building to be demolished within a stipulated time. Such notice shall require the person thus notified to declare immediately to the *code official* acceptance or rejection of the terms of the order.~~

[A] 115.4 Method of service.

~~Such notice shall be deemed properly served if a copy thereof is delivered to the owner or the owner's authorized agent personally; sent by certified or registered mail addressed to the owner or the owner's authorized agent at the last known address with the return receipt requested; or delivered in any other manner as prescribed by local law. If the certified or registered letter is returned showing that the letter was not delivered, a copy thereof shall be posted in a conspicuous place in or about the structure affected by such notice. Service of such notice in the foregoing manner upon the owner's authorized agent or upon the person responsible for the structure shall constitute service of notice upon the owner.~~

[A] 115.5 Restoration.

~~The building or equipment determined to be *unsafe* by the *code official* is permitted to be restored to a safe condition. To the extent that *repairs, alterations, or additions* are made or a *change of occupancy* occurs during the restoration of the building, such *repairs, alterations, additions, or change of occupancy* shall comply with the requirements of this code.~~

SECTION 116 EMERGENCY MEASURES

~~Deleted. See the *North Carolina Administrative Code and Policies*.~~

[A] 116.1 Imminent danger.

~~Where, in the opinion of the *code official*, there is imminent danger of failure or collapse of a building that endangers life, or where any building or part of a building has fallen and life is endangered by the occupation of the building, or where there is actual or potential danger to the building occupants or those in the proximity of any structure because of explosives, explosive~~

~~fumes or vapors, or the presence of toxic fumes, gases, or materials, or operation of defective or dangerous equipment, the *code official* is hereby authorized and empowered to order and require the occupants to vacate the premises forthwith. The *code official* shall cause to be posted at each entrance to such structure a notice reading as follows: "This Structure Is Unsafe and Its Occupancy Has Been Prohibited by the *Code Official*." It shall be unlawful for any person to enter such structure except for the purpose of securing the structure, making the required repairs, removing the hazardous condition, or of demolishing the same.~~

[A] 116.2 Temporary safeguards.

~~Notwithstanding other provisions of this code, whenever, in the opinion of the *code official*, there is imminent danger due to an unsafe condition, the *code official* shall order the necessary work to be done, including the boarding up of openings, to render such structure temporarily safe whether or not the legal procedure herein described has been instituted; and shall cause such other action to be taken as the *code official* deems necessary to meet such emergency.~~

[A] 116.3 Closing streets.

~~Where necessary for public safety, the *code official* shall temporarily close structures and close or order the authority having jurisdiction to close sidewalks, streets, public ways, and places adjacent to unsafe structures, and prohibit the same from being utilized.~~

[A] 116.4 Emergency repairs.

~~For the purposes of this section, the *code official* shall employ the necessary labor and materials to perform the required work as expeditiously as possible.~~

[A] 116.5 Costs of emergency repairs.

~~Costs incurred in the performance of emergency work shall be paid by the jurisdiction. The legal counsel of the jurisdiction shall institute appropriate action against the owner of the premises or the owner's authorized agent where the unsafe structure is or was located for the recovery of such costs.~~

[A] 116.6 Hearing.

~~Any person ordered to take emergency measures shall comply with such order forthwith. Any affected person shall thereafter, upon petition directed to the appeals board, be afforded a hearing as described in this code.~~

SECTION 117 DEMOLITION

~~Deleted. See the North Carolina Administrative Code and Policies.~~

[A] 117.1 General.

~~The *code official* shall order the owner or owner's authorized agent of any premises upon which is located any structure that in the *code official's* judgment is so old or dilapidated, or has become so out of repair as to be dangerous, unsafe, insanitary or otherwise unfit for human habitation or occupancy, and such that it is unreasonable to repair the structure, to demolish and remove such structure; or if such structure is capable of being made safe by repairs, to repair and make safe and sanitary or to demolish and remove to the owner's or the owner's authorized agent's option; or where there has been a cessation of normal construction of any structure for a period of more than two years, to demolish and remove such structure.~~

~~[A] 117.2 Notices and orders.~~

~~Notices and orders shall comply with Section 113.~~

~~[A] 117.3 Failure to comply.~~

~~If the owner or the owner's authorized agent of a premises fails to comply with a demolition order within the time prescribed, the *code official* shall cause the structure to be demolished and removed, either through an available public agency or by contract or arrangement with private persons, and the cost of such demolition and removal shall be charged against the real estate upon which the structure is located and shall be a lien upon such real estate.~~

~~[A] 117.4 Salvage materials.~~

~~Where any structure has been ordered demolished and removed, the governing body or other designated officer under said contract or arrangement aforesaid shall have the right to sell the salvage and valuable materials at the highest price obtainable. The net proceeds of such sale, after deducting the expenses of such demolition and removal, shall be promptly remitted with a report of such sale or transaction, including the items of expense and the amounts deducted, for the person who is entitled thereto, subject to any order of a court. If such a surplus does not remain to be turned over, the report shall so state.~~

CHAPTER 2 DEFINITIONS

SECTION 202 GENERAL DEFINITIONS

[A] APPROVED. Acceptable to the *code official* or authority having jurisdiction for compliance with the provisions of the applicable code or reference.

BOARDING HOUSE. A building arranged or used for lodging for compensation, with or without meals, and not occupancies as a single-family unit.

COMMERCIAL BUILDING. For energy conservation provisions, all buildings that are not included in the definition of “Residential building.”

~~**[A] DEFERRED SUBMITTAL.** Those portions of the design that are not submitted at the time of the application and that are to be submitted to the *code official* within a specified period.~~

EXISTING BUILDING. A building *legally occupied* or *legally occupied* prior to a current vacant status ~~erected prior to the date of adoption of the appropriate code, or one for which a legal building permit has been issued.~~

HIGH-RISE BUILDING. A building with an occupied floor located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.

[A] HISTORIC BUILDING. Any building or structure that is one or more of the following:

1. Listed, or certified as eligible for listing, by the State Historic Preservation Officer or the Keeper of the National Register of Historic Places, in the National Register of Historic Places.
2. Designated as historic or contributing resource under an applicable state or local law.
3. Certified as a contributing resource within a National Register, state designated or locally designated historic district.

LEGALLY OCCUPIED. A building that has a current certificate of occupancy or equivalent documentation provided by the permit holder acceptable to the local code enforcement official.

LISTED. Equipment, materials, products or services included in a list published by an organization acceptable to the code official and concerned with evaluation of products or services that maintain periodic inspections of production of listed equipment or materials or periodic evaluation of services and whose listing states either that the equipment, material, product or service meets identified standards or has been tested and found suitable for a specified purpose.

NIGHT CLUB. An A-2 occupancy meeting all of the following conditions:

1. The aggregate floor area of concentrated use and standing space that is used for dancing or viewing of performers exceeds 10 percent of the Group A-2 fire area, excluding adjacent lobby areas ; and
2. Provides live or recorded entertainment by performing artist; and
3. Allows alcoholic beverage consumption.

OCCUPANCY CLASSIFICATION. A subset of the occupancy group as listed in Chapter 3 of the North Carolina Building Code (i.e., A-1, A-2, A-3, A-4, A-5, B, E, F-1, F-2, H-1, H-2, H-3, H-4, H-5, I-1, I-2, I-3, I-4, M, R-1, R-2, R-3, R-4, S-1, S-2, and U).

OCCUPANCY GROUP. Occupant type as listed in Chapter 3 of the North Carolina Building Code (i.e., A, B, E, F, H, I, M, R, S, U).

OCCUPANCY USE. The function of the space and not necessarily the *occupancy classification*.

OPERATIONAL ACCESS. Building access which allows use of a building during and after an emergency event.

[B] REGISTERED DESIGN PROFESSIONAL. An individual who is registered or licensed to practice their respective design profession as defined by the statutory requirements of the professional registration laws of the state or jurisdiction in which the project is to be constructed. A design by a registered design professional is not required where exempt under the registration or license laws.

~~**RELOCATABLE BUILDING.** A partially or completely assembled building constructed and designed to be reused multiple times and transported to different building sites.~~

[A] REPAIR. The restoration ~~reconstruction~~ or renewal of any part of an *existing building* for the purpose of its maintenance or to correct damage.

RESIDENTIAL BUILDING. For energy conservation provisions, includes detached one- and two-family dwellings and multiple single-family dwellings (townhouses) as well as Group R-2, R-3 and R-4 buildings three stories or less in height above grade plane.

[BS] ROOF REPAIR. Restoration ~~Reconstruction~~ or renewal of any part of an existing roof for the purposes of its maintenance.

SYSTEM. Primary structural, mechanical, plumbing, electrical, fire protection, or occupant service components of a building including any equipment, fixtures, connections, conduits, wires, pipes, ducts, as well as any associated sensors, controls, distribution or safety elements.

TEMPORARY OVEFLOW SHELTER. A shelter that provides temporary overflow accommodations from an approved homeless shelter in accordance with Section 411.

~~**UNSAFE.** See the North Carolina Administrative Code and Policies. Buildings, structures or equipment that are unsanitary, or that are deficient due to inadequate means of egress facilities, inadequate light and ventilation, or that constitute a fire hazard, or in which the structure or individual structural members meet the definition of "Dangerous," or that are otherwise~~

~~dangerous to human life or the public welfare, or that involve illegal or improper occupancy or inadequate maintenance shall be deemed unsafe. A vacant structure that is not secured against entry shall be deemed unsafe.~~

CHAPTER 3

PROVISIONS FOR ALL COMPLIANCE METHODS

SECTION 301 ADMINISTRATION

301.1 General.

The *repair, alteration, change of occupancy, addition* or relocation of all *existing buildings* shall comply with one of the methods listed in Sections 301.1.1 through 301.1.3 as selected by the applicant. Sections 301.1.1 through 301.1.3 shall not be applied in combination with each other. Where this code requires consideration of the seismic force-resisting system of an *existing building* subject to *repair, alteration, change of occupancy, addition* or relocation of *existing buildings*, the seismic evaluation and design shall be based on Section 301.1.4 regardless of which compliance method is used.

Exception: ~~Subject to the approval of the code official,~~ Structural alterations complying with the laws in existence at the time the building or the affected portion of the building was built shall be considered in compliance with the provisions of this code unless the building is undergoing more than a limited structural alteration as defined in Section 907.4.4. New structural members added as part of the alteration shall comply with the *International Building Code*. Alterations of existing buildings in flood hazard areas shall comply with Section 701.3. Buildings constructed prior to the existence of an applicable *North Carolina State Building Code* and in structurally sound condition shall be considered “complying with the laws in existence at the time the building or the affected portion of the building was built”.

[BS] 301.1.4 Seismic evaluation and design procedures.

The seismic evaluation and design shall be based on the procedures specified in the *International Building Code* or ASCE 41. The procedures contained in Appendix A of this code shall be permitted to be used as specified in Section 301.1.4.2.

Exception: Seismic requirements shall not apply to detached one- and two-family dwellings.

SECTION 302 GENERAL PROVISIONS

302.2 Additional codes.

Alterations, repairs, additions and changes of occupancy to, or relocation of, existing buildings and structures shall comply with the provisions for alterations, repairs, additions and changes of occupancy or relocation, respectively, in this code and the *International Energy Conservation Code*, *International Fire Code*, *International Fuel Gas Code*, *International Mechanical Code*, *International Plumbing Code*, ~~*International Property Maintenance Code*~~, ~~*International Private Sewage Disposal Code*~~, *International Residential Code* and NFPA 70. Where provisions of the other codes conflict with provisions of this code, the provisions of this code shall take precedence.

302.4 New and replacement materials.

Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. Like materials shall be permitted for repairs and

alterations, provided no hazard to life, health or property ~~unsafe condition~~ is created. Hazardous materials shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.

CHAPTER 4

PRESCRIPTIVE COMPLIANCE METHOD

SECTION 401 GENERAL

401.2.1 Existing materials.

Materials already in use in a building in compliance with requirements or approvals in effect at the time of their erection or installation shall be permitted to remain in use unless determined by the building official to be unsafe per ~~Section 115~~ the North Carolina Administrative Code and Policies.

SECTION 402 ADDITIONS

[BS] 402.3 Existing structural elements carrying gravity load.

Any existing gravity load-carrying structural element for which an *addition* and its related alterations cause an increase in design gravity load of more than ~~5~~ 10 percent shall be strengthened, supplemented, replaced or otherwise altered as needed to carry the increased gravity load required by the *International Building Code* for new structures. Any existing gravity load-carrying structural element whose gravity load carrying capacity is decreased shall be considered an altered element subject to the requirements of Section 403.3. Any existing element that will form part of the lateral load path for any part of the *addition* shall be considered an existing lateral load-carrying structural element subject to the requirements of Section 402.4.

402.5 Smoke alarms in existing portions of a building.

Where an *addition* is made to a building or structure of a Group R or I-1 occupancy, the *existing building* shall be provided with smoke alarms in accordance with ~~Section 1103.8 of the International Fire Code~~ Section 907.2.11 of the North Carolina Building Code. Smoke alarms for Group R occupancies are permitted to be radio frequency type appliances as allowed and installed by NFPA 72.

402.5.1 Smoke alarms in existing portions of one- and two-family dwellings and townhouses.

Where an *addition* is made to a detached one- and two-family dwelling or townhouse, the *existing building* shall be provided with smoke alarms installed in accordance with Section R314 of the North Carolina Residential Code.

402.6 Carbon monoxide alarms in existing portions of a building.

Where an *addition* is made to a building or structure of a Group I-1, I-2, I-4 or R occupancies, or classrooms are added in Group E occupancies, the *existing building* shall be provided with carbon monoxide alarms in accordance with Section 915 of the North Carolina Building Code, except that the carbon monoxide alarms shall be allowed to be solely battery operated.

402.6.1 Carbon monoxide alarms in existing portions of one- and two-family dwellings and townhouses.

Where an *addition* is made to a detached one- and two-family dwelling or townhouse, the *existing building* shall be provided with carbon monoxide alarms installed in accordance with Section R315 of the *North Carolina Residential Code*.

SECTION 403 ALTERATIONS

[BS] 403.3 Existing structural elements carrying gravity load.

Any existing gravity load-carrying structural element for which an *alteration* causes an increase in design gravity load of more than ~~5~~ 10 percent shall be strengthened, supplemented, replaced or otherwise altered as needed to carry the increased gravity load required by the *International Building Code* for new structures. Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased as part of the *alteration* shall be shown to have the capacity to resist the applicable design gravity loads required by the *International Building Code* for new structures.

[BS] 403.4 Existing structural elements carrying lateral load.

~~Except as permitted by Section 403.5, w~~Where the *alteration* increases design lateral loads in accordance with Section 1609 or 1613 of the *International Building Code*, or where the *alteration* results in a prohibited structural irregularity as defined in ASCE 7, or where the *alteration* decreases the capacity of any existing lateral load-carrying structural element, the structure of the altered building or structure shall be shown to meet the requirements of Sections 1609 and 1613 of the *International Building Code*. For purposes of this section, compliance with ASCE 41, using a Tier 3 procedure and the two-level performance objective in Table 301.1.4.1 for the applicable risk category, shall be deemed to meet the requirements of Section 1613 of the *International Building Code*.

Exception: Any existing lateral load-carrying structural element whose demand-capacity ratio with the *alteration* considered is no more than 10 percent greater than its demand-capacity ratio with the *alteration* ignored shall be permitted to remain unaltered. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations with design lateral loads or forces in accordance with Sections 1609 and 1613 of the *International Building Code*. For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacities shall account for the cumulative effects of *additions* and *alterations* since original construction.

[BS] 403.4.1 Seismic Design Category F. Deleted.

~~Where the portion of the building undergoing the intended alteration exceeds 50 percent of the aggregate area of the building, and where the building is assigned to Seismic Design Category F, the structure of the altered building shall be shown to meet the earthquake design provisions of the *International Building Code*. For purposes of this section, the earthquake loads need not be taken greater than 75 percent of those prescribed in Section 1613 of the *International Building Code* for new buildings of similar occupancy, purpose and location. New structural members and connections required by this section shall comply with the detailing provisions of this code for new buildings of similar structure, purpose and location.~~

[BS] 403.5 Bracing for unreinforced masonry parapets upon reroofing. Deleted.

~~Where the intended alteration requires a permit for reroofing and involves removal of roofing~~

~~materials from more than 25 percent of the roof area of a building assigned to Seismic Design Category D, E or F that has parapets constructed of unreinforced masonry, the work shall include installation of parapet bracing to resist out-of-plane seismic forces, unless an evaluation demonstrates compliance of such items. For purposes of this section, design seismic forces need not be taken greater than 75 percent of those that would be required for the design of similar nonstructural components in new buildings of similar purpose and location.~~

[BS] 403.6 Wall anchorage for unreinforced masonry walls in major alterations. Deleted.

~~Where the portion of the building undergoing the intended alteration exceeds 50 percent of the aggregate area of the building, the building is assigned to Seismic Design Category C, D, E or F, and the building's structural system includes unreinforced masonry walls, the alteration work shall include installation of wall anchors at the roof line to resist seismic forces, unless an evaluation demonstrates compliance of existing wall anchorage. For purposes of this section, design seismic forces need not be taken greater than 75 percent of those that would be required for the design of new buildings of similar structure, purpose and location.~~

[BS] 403.7 Bracing for unreinforced masonry parapets in major alterations. Deleted.

~~Where the portion of the building undergoing the intended alteration exceeds 50 percent of the aggregate area of the building, and where the building is assigned to Seismic Design Category C, D, E or F, parapets constructed of unreinforced masonry shall have bracing installed as needed to resist out-of-plane seismic forces, unless an evaluation demonstrates compliance of such items. For purposes of this section, design seismic forces need not be taken greater than 75 percent of those that would be required for the design of similar nonstructural components in new buildings of similar purpose and location.~~

[BS] 403.8 Roof diaphragms resisting wind loads in high wind regions. Deleted.

~~Where the intended alteration requires a permit for reroofing and involves removal of roofing materials from more than 50 percent of the roof diaphragm of a building or section of a building located where the ultimate design wind speed is greater than 115 mph (51 m/s) in accordance with Figure 1609.3(1) of the *International Building Code* or in a special wind region as defined in Section 1609 of the *International Building Code*, roof diaphragms, connections of the roof diaphragm to roof framing members, and roof-to-wall connections shall be evaluated for the wind loads specified in Section 1609 of the *International Building Code*, including wind uplift. If the diaphragms and connections in their current condition are not capable of resisting at least 75 percent of those wind loads, they shall be replaced or strengthened in accordance with the loads specified in Section 1609 of the *International Building Code*.~~

403.10 Smoke alarms.

Individual sleeping units and individual dwelling units in Group R and I-1 occupancies shall be provided with smoke alarms in accordance with ~~Section 1103.8 of the *International Fire Code*~~ Section 907.2.11 of the *North Carolina Building Code*. Smoke alarms for Group R occupancies are permitted to be radio frequency type appliances as allowed and installed by NFPA 72.

403.10.1 Smoke alarms in one- and two-family dwellings and townhouses.

Detached one- and two-family dwellings and townhouses shall be provided with smoke alarms installed in accordance with Section R314 of the *North Carolina Residential Code*.

403.11 Carbon monoxide alarms.

Individual sleeping units and individual dwelling units in Group R and I occupancies and classrooms in Group E occupancies shall be provided with carbon monoxide alarms in

accordance with Section 915 of the *North Carolina Building Code*, except that the carbon monoxide alarms shall be allowed to be solely battery operated.

403.11.1 Carbon monoxide alarms in one- and two-family dwellings and townhouses.

Detached one- and two-family dwellings and townhouses shall be provided with carbon monoxide alarms installed in accordance with Section R315 of the *North Carolina Residential Code*.

~~403.11~~403.12 Refuge areas.

Where alterations affect the configuration of an area utilized as a refuge area, the capacity of the refuge area shall not be reduced below that required in Sections ~~403.11.1~~ 403.12.1 through ~~403.11.3~~ 403.12.3.

~~403.11.1~~403.12.1 Smoke compartments.

In Group I-2 and I-3 occupancies, the required capacity of the refuge areas for smoke compartments in accordance with Sections 407.5.1 and 408.6.2 of the *International Building Code* shall be maintained.

~~403.11.2~~403.12.2 Ambulatory care.

In ambulatory care facilities required to be separated by Section 422.2 of the *International Building Code*, the required capacity of the refuge areas for smoke compartments in accordance with Section 422.4 of the *International Building Code* shall be maintained.

~~403.11.3~~403.12.3 Horizontal exits.

The required capacity of the refuge area for horizontal exits in accordance with Section 1026.4 of the *International Building Code* shall be maintained.

SECTION 404 REPAIRS

404.1 General.

Buildings and structures, and parts thereof, shall be repaired in compliance with Sections 401.2 and 404. Work on nondamaged components that is necessary for the required *repair* of damaged components shall be considered part of the *repair* and shall not be subject to the requirements for *alterations* in this chapter. Routine maintenance required by Section 401.2, ordinary repairs exempt from permit in accordance with ~~Section 105.2~~ North Carolina general statute, and abatement of wear due to normal service conditions shall not be subject to the requirements for repairs in this section.

[BS] 404.2 Substantial structural damage to vertical elements of the lateral force-resisting system.

A building that has sustained *substantial structural damage* to the vertical elements of its lateral force-resisting system shall be evaluated and repaired in accordance with the applicable provisions of Sections 404.2.1 through 404.2.3.

Exceptions:

1. Buildings assigned to Seismic Design Category A, B or C whose substantial structural damage was not caused by earthquake need not be evaluated or rehabilitated for load combinations that include earthquake effects.
2. Other than townhouses, structures regulated by the North Carolina Residential Code ~~one-and-two-family dwellings~~ need not be evaluated or rehabilitated for load combinations that include earthquake effects.

[BS] 404.3.1 Lateral force-resisting elements.

Regardless of the level of damage to vertical elements of the lateral force-resisting system, if *substantial structural damage* to gravity load-carrying components was caused primarily by wind or earthquake effects, then the building shall be evaluated in accordance with Section 404.2.1 and, if noncompliant, rehabilitated in accordance with Section 404.2.3.

Exceptions:

1. Other than townhouses, structures regulated by the North Carolina Residential Code ~~one-and-two-family dwellings~~ need not be evaluated or rehabilitated for load combinations that include earthquake effects.
2. Buildings assigned to Seismic Design Category A, B or C whose substantial structural damage was not caused by earthquake need not be evaluated or rehabilitated for load combinations that include earthquake effects.

**SECTION 405
FIRE ESCAPES**

405.1.1 New buildings. Deleted.

~~Fire escapes shall not constitute any part of the required means of egress in new buildings.~~

**SECTION 406
GLASS REPLACEMENT
AND REPLACEMENT WINDOWS**

406.1 Replacement glass.

The installation or replacement of glass shall be as required for new installations.

Exception: Replacement glazing shall be in compliance with Section R503.1.1.1 and Section C503.1.1 of the *North Carolina Energy Conservation Code*.

406.2 Replacement window opening control devices.

In Group R-2 or R-3 buildings containing dwelling units, window opening control devices complying with ASTM F 2090 shall be installed where an existing window is replaced and where all of the following apply to the replacement window:

1. The window is operable;
2. The window replacement includes replacement of the sash and the frame;

3. The top of the sill of the window opening is at a height less than 36 inches (915 mm) above the finished floor;
4. The window will permit openings that will allow passage of a 4-inch-diameter (102 mm) sphere when the window is in its largest opened position; and
5. The vertical distance from the top of the sill of the window opening to the finished grade or other surface below, on the exterior of the building, is greater than 72 inches (1829 mm).

The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the minimum net clear opening area of the window unit to less than the area required by Section ~~1029.2~~ 1030.2 of the *International Building Code*.

Exceptions:

1. Operable windows where the top of the sill of the window opening is located more than 75 feet (22860 mm) above the finished grade or other surface below, on the exterior of the room, space or building, and that are provided with window fall prevention devices that comply with ASTM F 2006.
2. Operable windows with openings that are provided with window fall prevention devices that comply with ASTM F 2090.

406.3 Replacement window emergency escape and rescue openings.

Where windows are required to provide *emergency escape* and *rescue openings* in **Group E classrooms**, Group R-2 and R-3 occupancies, replacement windows shall be exempt from the requirements of Sections 1030.2, 1030.3 and 1030.5 of the *International Building Code* provided the replacement window meets the following conditions:

1. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.
2. The replacement of the window is not part of a change of occupancy.

**SECTION 407
CHANGE OF OCCUPANCY**

[BS] 407.4 Structural.

When a *change of occupancy* results in a structure being reclassified to a higher risk category from Table 1604.5 of the *North Carolina Building Code*, the structure shall conform to the seismic requirements for a new structure of the higher risk category. For purposes of this section, compliance with ASCE 41, using a Tier 3 procedure and the two-level performance objective in Table 301.1.4.1 for the applicable risk category, shall be deemed to meet the requirements of Section 1613 of the *International Building Code*.

Exceptions:

1. Specific seismic detailing requirements of Section 1613 of the *International Building Code* for a new structure shall not be required to be met where the seismic performance is shown to be equivalent to that of a new structure. A demonstration of equivalence shall consider the regularity, overstrength, redundancy and ductility of the structure.
2. When a change of use results in a structure being reclassified from Risk Category I or II to Risk Category III and the structure is located where the seismic coefficient, SDS, is less than 0.33, compliance with the seismic requirements of Section 1613 of the *International Building Code* is not required.

407.5 Energy conservation.

Spaces undergoing a change of occupancy shall comply with Sections R505 and C505 of the North Carolina Energy Conservation Code.

SECTION 410 ACCESSIBILITY FOR EXISTING BUILDINGS

410.8.3.1 Inclined stairway chairlifts.

Inclined stairway chairlifts that do not reduce the required means of egress and installed in accordance with ASME A18.1 shall be permitted as a component of an accessible route in alterations of existing occupancies in:

1. Religious organizations or entities controlled by religious organizations, including places of worship; or
2. Private clubs or establishments exempted under Title II of the Civil Rights Act of 1964.

Such inclined stairway chairlifts shall be approved for commercial use by the manufacturer and installed by approved factory-trained installers.

410.8.7 Type A dwelling or sleeping units.

Where ~~more than 20~~ 11 or more Group R-2 dwelling or sleeping units are being altered or added, the requirements of Section 1107 of the *International Building Code* for Type A units apply only to the quantity of the spaces being altered or added.

410.8.14 Amusement rides. Deleted.

~~Where the structural or operational characteristics of an amusement ride are altered to the extent that the amusement ride's performance differs from that specified by the manufacturer or the original design, the amusement ride shall comply with requirements for new construction in Section 1110.4.8 of the *International Building Code*.~~

SECTION 411 TEMPORARY OVERFLOW EMERGENCY SHELTERS FOR THE HOMELESS

411.1 General.

Existing A-2 and A-3 occupancies shall be permitted to provide facilities for temporary overflow emergency shelters for the homeless provided that all of the following conditions are met and approved by the local code official and fire marshal:

411.1.1 Occupant load and age.

The total number of homeless occupants is limited to 20 individuals who are ambulatory. The homeless occupants must be 18 years of age or older.

411.1.2 Construction type.

The building must be of Type I, II, or III construction.

411.1.3 Staff.

The temporary overflow emergency shelter must be staffed by a minimum of two individuals of 21 years of age or older trained in accordance with Chapter 4 of the *North Carolina Fire Code* and at least one trained individual shall be awake to monitor the sleeping room and restrooms throughout the time the facility is occupied by the homeless.

411.1.4 Fire alarm and detection systems.

Functioning smoke detection and a local fire alarm system per Section 907.2.8 of the *North Carolina Building Code* shall be provided throughout the sleeping room and exit access corridors and stairs of the temporary overflow emergency shelter.

The building owner shall submit documentation illustrating that the fire alarm system is approved and that all emergency batteries have been tested and are operational.

411.1.5 Means of egress.

There shall be a minimum of two separate code compliant means of egress serving the temporary overflow emergency shelter. An evacuation route approved by the local building and fire code officials shall be posted and be in compliance with Sections 404, 406, and 408 of the *North Carolina Fire Code*.

411.1.5.1 Illumination.

The temporary overflow emergency shelter sleeping room and exit access corridors and stairs shall have unswitched illumination and emergency powered illumination with a duration of not less than 90-minutes.

411.1.6 Automatic sprinkler system.

No fire protection sprinkler system is required per Section 903.2.8, Exception #2 of the *North Carolina Building Code*.

411.1.7 Ventilation and temperature control.

Heating, cooling, and ventilation must be provided by equipment installed and approved for such use. Use of space heaters shall be prohibited.

411.1.8 Fire extinguishers.

There must be an adequate number of fire extinguishers to serve the temporary overflow emergency shelter as determined by the local fire marshal. Travel distance to an approved fire extinguisher shall not exceed 50 feet (15 240 mm). Minimum rating of extinguishers shall be 3A40BC.

411.1.9 Occupant restrictions.

No smoking is permitted in the temporary overflow emergency shelter.

411.1.10 Permits.

Temporary overflow emergency shelters must be approved by the local code official for occupancy by issuance of an approved occupancy permit. Drawings of the temporary overflow emergency shelter sealed by a *registered design professional* must be provided for local code official review and approval.

Occupancy of a temporary overflow emergency shelter shall be for a maximum of 150 calendar days within any 365 day time span.

411.1.11 Accessibility.

For temporary overflow emergency shelters compliance with Chapter 11 and Section 1007 of the *North Carolina Building Code* is not required provided that the local jurisdiction has other shelter facilities that are accessible by the disabled.

CHAPTER 5

CLASSIFICATION OF WORK

SECTION 503
ALTERATION—LEVEL 1 (Renovation)

SECTION 504
ALTERATION—LEVEL 2 (Alteration)

SECTION 505
ALTERATION—LEVEL 3 (Reconstruction)

505.1 Scope.

Level 3 *alterations* apply where the work area exceeds 50 percent of the *building area* in any 12 month time period.

Exception: Alterations limited to displays or showrooms in Group M occupancies.

CHAPTER 6 REPAIRS

SECTION 602 BUILDING ELEMENTS AND MATERIALS

602.2 New and replacement materials.

Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. Like materials shall be permitted ~~for repairs and alterations~~, provided no *dangerous* or *unsafe* condition, as defined in Chapter 2, is created. Hazardous materials, such as asbestos and lead-based paint, shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.

602.4 Wind-borne debris protection.

Replacement of window units shall require compliance with Section 1609.1.2 of the *North Carolina Building Code* or Section R609.6 of the *North Carolina Residential Code*. Replacement of individual glass panes or sashes shall not require compliance with Sections 1609.1.2 and R609.6.

SECTION 603 FIRE PROTECTION

603.1 General.

Repairs shall be done in a manner that maintains the level of fire protection ~~provided~~ that is existing.

SECTION 604 MEANS OF EGRESS

604.1 General.

Repairs shall be done in a manner that maintains the level of protection ~~provided~~ that is existing for the means of egress.

SECTION 605 ACCESSIBILITY

605.1 General.

Repairs shall be done in a manner that maintains the level of accessibility ~~provided~~ that is existing.

SECTION 609 PLUMBING

609.1 General.

Existing plumbing systems undergoing *repair* shall not make the building less conforming than it was before the *repair* was undertaken.

609.12 Materials.

Plumbing materials and supplies shall not be used for repairs that are prohibited in the *International Plumbing Code*.

609.23 Water closet replacement.

The maximum water consumption flow rates and quantities for all replaced water closets shall be 1.6 gallons (6 L) per flushing cycle.

Exception: Blowout-design water closets [3.5 gallons (13 L) per flushing cycle].

609.4 Water supply system test.

Existing water supply systems that are repaired shall be allowed to be tested and proved tight under a water pressure of normal operating pressure of the existing water supply system. The pressure shall be held at least 15 minutes.

SECTION 610
ENERGY CONSERVATION

610.1 General.

Repair of building systems shall not make the building less conforming than it was before the repair was undertaken.

610.2 Materials.

Portions of walls that are part of the building thermal envelope shall be insulated in accordance with the *North Carolina Energy Conservation Code* when the repair requires the removal of either the interior or exterior wall membrane such that the wall cavity is exposed during the repair.

Exception: Wall cavities containing existing insulation material.

610.3 Glazing.

Repair requiring the replacement of window units shall comply with the requirements of the *North Carolina Energy Conservation Code*. Repair requiring the replacement of individual glass panes or sashes shall not require compliance with the *U-value* requirements of the *North Carolina Energy Conservation Code*.

Exception: Historic structures where compliance with the *North Carolina Energy Conservation Code* would conflict with the historic nature of the structure are not required to comply with the *North Carolina Energy Conservation Code* but shall have an *U-value* equal to or greater than the existing glazing.

CHAPTER 7 ALTERATIONS—LEVEL 1

SECTION 702 BUILDING ELEMENTS AND MATERIALS

702.5 Emergency escape and rescue openings.

Where windows are required to provide emergency escape and rescue openings in **Group E classrooms**, Group R-2 and R-3 occupancies and one- and two-family dwellings and townhouses regulated by the *International Residential Code*, replacement windows shall be exempt from the requirements of Sections 1030.2, 1030.3 and 1030.5 of the *International Building Code* and Sections R310.21 and R310.2.3 of the *International Residential Code* accordingly, provided the replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.

Window opening control devices complying with ASTM F 2090 shall be permitted for use on windows required to provide *emergency escape and rescue openings*.

SECTION 703 FIRE PROTECTION

703.1 General.

Alterations shall be done in a manner that maintains the level of fire protection ~~provided~~ that is existing.

703.2 Smoke and carbon monoxide alarms.

Smoke and carbon monoxide alarms shall be provided and installed in accordance with Section 804.4.

SECTION 704 MEANS OF EGRESS

704.1 General.

Alterations shall be done in a manner that maintains the level of protection ~~provided~~ that is existing for the means of egress.

SECTION 705 ACCESSIBILITY

Deleted
(Relocated to Section 806)

~~705.1 General.~~

~~A facility that is altered shall comply with the applicable provisions in Sections 705.1.1 through 705.1.14, and Chapter 11 of the *International Building Code* unless it is technically infeasible.~~

~~Where compliance with this section is *technically infeasible*, the alteration shall provide access to the maximum extent that is technically feasible.~~

~~A facility that is constructed or altered to be accessible shall be maintained accessible during occupancy.~~

Exceptions:

- ~~1. The altered element or space is not required to be on an accessible route unless required by Section 705.2.~~
- ~~2. Accessible means of egress required by Chapter 10 of the *International Building Code* are not required to be provided in existing facilities.~~
- ~~3. Type B dwelling or sleeping units required by Section 1107 of the *International Building Code* are not required to be provided in existing facilities undergoing less than a Level 3 alteration.~~
- ~~4. The alteration to Type A individually owned dwelling units within a Group R-2 occupancy shall meet the provisions for Type B dwelling units.~~

705.1.1 Entrances.

~~Where an alteration includes alterations to an entrance, and the facility has an accessible entrance on an accessible route, the altered entrance is not required to be accessible unless required by Section 705.2. Signs complying with Section 1111 of the *International Building Code* shall be provided.~~

705.1.2 Elevators.

~~Altered elements of existing elevators shall comply with ASME A17.1/GSA B44 and ICG A117.1. Such elements shall also be altered in elevators programmed to respond to the same hall call control as the altered elevator.~~

705.1.3 Platform lifts.

~~Platform (wheelchair) lifts complying with ICG A117.1 and installed in accordance with ASME A18.1 shall be permitted as a component of an accessible route.~~

705.1.4 Ramps.

~~Where steeper slopes than allowed by Section 1012.2 of the *International Building Code* are necessitated by space limitations, the slope of ramps in or providing access to existing facilities shall comply with Table 705.1.4.~~

**TABLE 705.1.4
RAMPS**

SLOPE	MAXIMUM RISE
Steeper than 1:10 but not steeper than 1:8	3 inches
Steeper than 1:12 but not steeper than 1:10	6 inches

For SI: 1 inch = 25.4 mm.

~~705.1.5 Dining areas.~~

~~An accessible route to raised or sunken dining areas or to outdoor seating areas is not required provided that the same services and decor are provided in an accessible space usable by any occupant and not restricted to use by people with a disability.~~

~~705.1.6 Jury boxes and witness stands.~~

~~In alterations, accessible wheelchair spaces are not required to be located within the defined area of raised jury boxes or witness stands and shall be permitted to be located outside these spaces where ramp or lift access poses a hazard by restricting or projecting into a required means of egress.~~

~~705.1.7 Accessible dwelling or sleeping units.~~

~~Where Group I-1, I-2, I-3, R-1, R-2 or R-4 dwelling or sleeping units are being altered, the requirements of Section 1107 of the *International Building Code* for Accessible units apply only to the quantity of the spaces being altered.~~

~~705.1.8 Type A dwelling or sleeping units.~~

~~Where more than 20 Group R-2 dwelling or sleeping units are being altered, the requirements of Section 1107 of the *International Building Code* for Type A units and Chapter 9 of the *International Building Code* for visible alarms apply only to the quantity of the spaces being altered.~~

~~705.1.9 Toilet rooms.~~

~~Where it is technically infeasible to alter existing toilet and bathing rooms to be accessible, an accessible family or assisted-use toilet or bathing room constructed in accordance with Section 1109.2.1 of the *International Building Code* is permitted. The family or assisted-use toilet or bathing room shall be located on the same floor and in the same area as the existing toilet or bathing rooms. At the inaccessible toilet and bathing rooms, directional signs indicating the location of the nearest family or assisted-use toilet room or bathing room shall be provided. These directional signs shall include the International Symbol of Accessibility and sign characters shall meet the visual character requirements in accordance with ICC A117.1.~~

~~705.1.10 Dressing, fitting and locker rooms.~~

~~Where it is *technically infeasible* to provide accessible dressing, fitting, or locker rooms at the same location as similar types of rooms, one accessible room on the same level shall be provided. Where separate sex facilities are provided, accessible rooms for each sex shall be provided. Separate sex facilities are not required where only unisex rooms are provided.~~

~~705.1.11 Fuel dispensers.~~

~~Operable parts of replacement fuel dispensers shall be permitted to be 54 inches (1370 mm) maximum measured from the surface of the vehicular way where fuel dispensers are installed on existing curbs.~~

~~705.1.12 Thresholds.~~

~~The maximum height of thresholds at doorways shall be $\frac{3}{4}$ inch (19.1 mm). Such thresholds shall have beveled edges on each side.~~

705.1.13 Extent of application.

~~An alteration of an existing element, space, or area of a facility shall not impose a requirement for greater accessibility than that which would be required for new construction. Alterations shall not reduce or have the effect of reducing accessibility of a facility or portion of a facility.~~

705.1.14 Amusement rides.

~~Where the structural or operational characteristics of an amusement ride are altered to the extent that the amusement ride's performance differs from that specified by the manufacturer or the original design, the amusement ride shall comply with requirements for new construction in accordance with Section 1110.4.8 of the *International Building Code*.~~

705.2 Alterations affecting an area containing a primary function.

~~Where an alteration affects the accessibility to a, or contains an area of, primary function, the route to the primary function area shall be accessible. The accessible route to the primary function area shall include toilet facilities and drinking fountains serving the area of primary function.~~

Exceptions:

- ~~1. The costs of providing the accessible route are not required to exceed 20 percent of the costs of the alterations affecting the area of primary function.~~
- ~~2. This provision does not apply to alterations limited solely to windows, hardware, operating controls, electrical outlets and signs.~~
- ~~3. This provision does not apply to alterations limited solely to mechanical systems, electrical systems, installation or alteration of fire protection systems and abatement of hazardous materials.~~
- ~~4. This provision does not apply to alterations undertaken for the primary purpose of increasing the accessibility of a facility.~~
- ~~5. This provision does not apply to altered areas limited to Type B dwelling and sleeping units.~~

SECTION 706 REROOFING

[BS] 706.1 General.

Materials and methods of application used for recovering or replacing an existing roof covering shall comply with the requirements of Chapter 15 of the *International Building Code*.

Exceptions:

1. Reroofing shall not be required to meet the minimum design slope requirement of one-quarter unit vertical in 12 units horizontal (2-percent slope) in Section 1507 of the *International Building Code* for roofs that provide positive roof drainage.
2. Reroofing for buildings in the primary or secondary fire district shall follow the provisions

of Appendix D of the North Carolina Building Code.

SECTION 707 STRUCTURAL

[BS] 707.2 Addition or replacement of roofing or replacement of equipment.

Where addition or replacement of roofing or replacement of equipment results in additional dead loads, structural components supporting such reroofing or equipment shall comply with the gravity load requirements of the *International Building Code*.

Exceptions:

1. Structural elements where the additional dead load from the roofing or equipment does not increase the force in the element by more than ~~5~~ 10 percent.
2. Buildings constructed in accordance with the *International Residential Code* or the conventional lightframe construction methods of the *International Building Code* and where the dead load from the roofing or equipment is not increased by more than 5 percent.
3. Addition of a second layer of roof covering weighing 3 pounds per square foot (0.1437 kN/m²) or less over an existing, single layer of roof covering.

[BS] 707.3 Additional requirements for reroof permits. Deleted.

~~The requirements of this section shall apply to alteration work requiring reroof permits.~~

[BS] 707.3.1 Bracing for unreinforced masonry bearing wall parapets. Deleted.

~~Where a permit is issued for reroofing for more than 25 percent of the roof area of a building assigned to Seismic Design Category D, E or F that has parapets constructed of unreinforced masonry, the work shall include installation of parapet bracing to resist the reduced *International Building Code* level seismic forces as specified in Section 301.1.4.2 of this code, unless an evaluation demonstrates compliance of such items.~~

[BS] 707.3.2 Roof diaphragms resisting wind loads in high-wind regions. Deleted.

~~Where roofing materials are removed from more than 50 percent of the roof diaphragm or section of a building located where the ultimate design wind speed, V_{ult} , determined in accordance with Figure 1609.3(1) of the *International Building Code*, is greater than 115 mph (51 m/s) or in a special wind region, as defined in Section 1609 of the *International Building Code*, roof diaphragms, connections of the roof diaphragm to roof framing members, and roof-to-wall connections shall be evaluated for the wind loads specified in the *International Building Code*, including wind uplift. If the diaphragms and connections in their current condition are not capable of resisting at least 75 percent of those wind loads, they shall be replaced or strengthened in accordance with the loads specified in the *International Building Code*.~~

SECTION 708 ENERGY CONSERVATION

708.1.1 Building envelope.

Building envelope assemblies that are part of the *alteration* shall comply with Sections R402.1.2 or R402.1.4, Sections R402.2.1 through R402.2.15, R402.3.1, R402.3.2, R402.4.3 and R402.4.6 of the *North Carolina Energy Conservation Code for residential buildings* and Section C402 of the *North Carolina Energy Conservation Code for commercial buildings*.

Exceptions: The following *alterations* to conditioned spaces need not comply with the requirements for new construction:

1. Storm windows installed over existing fenestration.
2. Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are insulated. Roof systems requiring air space for ventilation shall retain the ventilation space required.
3. Construction where the existing roof, wall or floor cavity is not exposed.
4. Roof recover and roof replacement such that the existing building or structure is no less conforming to the provisions of this code than the existing building or structure was prior to the *alteration*.
5. Surface-applied window film installed on existing single pane fenestration assemblies to reduce solar heat gain.
6. Air barriers shall not be required for *roof recover* and roof replacement where the *alterations* or renovations to the building do not include *alterations*, renovations or *repairs* to the remainder of the building envelope.
7. *Alterations* that replace less than 50 percent of the luminaires in a space, provided that such *alterations* do not increase the installed interior lighting power.
8. For *commercial buildings*, replacement of existing doors that separate conditioned space from the exterior shall not require the installation of a vestibule or revolving door, provided, however, that an existing vestibule that separates a *conditioned space* from the exterior shall not be removed.

708.1.1.1 Replacement fenestration.

Where an entire existing fenestration unit is replaced with a new fenestration product, including frame, sash and glazing, the replacement fenestration unit shall meet the applicable requirements for *U-factor* and *SHGC* in Table R402.1.2 of the *North Carolina Energy Conservation Code for residential buildings* and Table C402.4 of the *North Carolina Energy Conservation Code for commercial buildings*.

Exceptions:

1. *Alterations* that replace less than 50 percent of entire fenestration units may be replaced with like or better fenestration units to match existing fenestration assemblies.
2. An area-weighted average of the *U-factor* of replacement fenestration products being installed in the building for each fenestration product category

listed in Table C402.4 of the *North Carolina Energy Conservation Code* shall be permitted to satisfy the *U-factor* requirements for each fenestration product category listed in Table C402.4 of the *North Carolina Energy Conservation Code*. Individual fenestration products from different product categories listed in Table C402.4 of the *North Carolina Energy Conservation Code* shall not be combined in calculating the area-weighted average *U-factor*.

CHAPTER 8 ALTERATIONS—LEVEL 2

SECTION 801 GENERAL

801.1 Scope.

Level 2 *alterations* as described in Section 504 shall comply with the requirements of this chapter.

~~**Exception:** Buildings in which the reconfiguration is exclusively the result of compliance with the accessibility requirements of Section 705.2 shall be permitted to comply with Chapter 7. Deleted.~~

SECTION 802 SPECIAL USE AND OCCUPANCY

802.2 Paint shops.

Paint shops, not classified as Group H, located in occupancies other than Group F shall be 1-hour separated from the remainder of the building with fire barriers or provided with an automatic fire-extinguishing system.

802.3 Waste and soiled linen collection rooms.

Waste and soiled linen collection rooms over 100 square feet (9.29 m²) shall be 1-hour separated from the remainder of the building with fire barriers or provided with an automatic fire-extinguishing system.

802.4 Chute termination rooms.

Chute termination rooms shall be 1-hour separated from the remainder of the building with fire barriers or provided with an automatic fire-extinguishing system.

802.5 Incinerator rooms.

Incinerator rooms shall be 2-hour separated from the remainder of the building with fire barriers and provided with an automatic sprinkler system.

802.6 Group I-2 and I-3.

In Group I-2 and I-3, physical plant maintenance shops, laundries over 100 square feet (9.29 m²), and padded cells shall be 1-hour separated from the remainder of the building with fire barriers or provided with an automatic sprinkler system.

**SECTION 803
BUILDING ELEMENTS AND MATERIALS**

803.2.1 Existing vertical openings.

All existing interior vertical openings connecting two or more floors shall be enclosed with approved assemblies having a fire-resistance rating of not less than 1 hour with approved opening protectives.

Exceptions:

1. Where vertical opening enclosure is not required by the *International Building Code* or the *International Fire Code*.
2. Interior vertical openings other than stairways may be blocked at the floor and ceiling of the *work area* by installation of not less than 2 inches (51 mm) of solid wood or equivalent construction.
3. The enclosure shall not be required where:
 - 3.1. Connecting the main floor and mezzanines; or
 - 3.2. All of the following conditions are met:
 - 3.2.1. The communicating area has a low hazard occupancy or has a moderate hazard occupancy that is protected throughout by an automatic sprinkler system.
 - 3.2.2. The lowest or next to the lowest level is a street floor.
 - 3.2.3. The entire area is open and unobstructed in a manner such that it may be assumed that a fire in any part of the interconnected spaces will be readily obvious to all of the occupants.
 - 3.2.4. Exit capacity is sufficient to provide egress simultaneously for all occupants of all levels by considering all areas to be a single floor area for the determination of required exit capacity.
 - 3.2.5. Each floor level, considered separately, has at least one half of its individual required exit capacity provided by an exit or exits leading directly out of that level without having to traverse another

communicating floor level or be exposed to the smoke or fire spreading from another communicating floor level.

4. In Group A occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories.
5. In Group B occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section 803.2.1, shall not be required in the following locations:
 - 5.1. Buildings not exceeding 3,000 square feet (279 m²) per floor.
 - 5.2. Buildings protected throughout by an approved automatic fire sprinkler system.
6. In Group E occupancies, the enclosure shall not be required for vertical openings not exceeding three stories when the building is protected throughout by an approved automatic fire sprinkler system.
7. In Group F occupancies, the enclosure shall not be required in the following locations:
 - 7.1. Vertical openings not exceeding three stories.
 - 7.2. Special purpose occupancies where necessary for manufacturing operations and direct access is provided to at least one protected stairway.
 - 7.3. Buildings protected throughout by an approved automatic sprinkler system.
8. In Group H occupancies, the enclosure shall not be required for vertical openings not exceeding three stories where necessary for manufacturing operations and every floor level has direct access to at least two remote enclosed stairways or other approved exits.
9. In Group M occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section 803.2.1, shall not be required in the following locations:
 - 9.1. Openings connecting only two floor levels.
 - 9.2. Occupancies protected throughout by an approved automatic sprinkler system.
10. In Group R-1 occupancies, the enclosure shall not be required for vertical openings not exceeding three stories in the following locations:

- 10.1. Buildings protected throughout by an approved automatic sprinkler system.
- 10.2. Buildings with less than 25 dwelling units or sleeping units where every sleeping room above the second floor is provided with direct access to a fire escape or other approved second exit by means of an approved exterior door or window having a sill height of not greater than 44 inches (1118 mm) and where:
 - 10.2.1. Any exit access corridor exceeding 8 feet (2438 mm) in length that serves two means of egress, one of which is an unprotected vertical opening, shall have at least one of the means of egress separated from the vertical opening by a 1-hour fire barrier; and
 - 10.2.2. The building is protected throughout by an automatic fire alarm system, installed and supervised in accordance with the *International Building Code*.
11. In Group R-2 occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section 803.2.1, shall not be required in the following locations:
 - 11.1. Vertical openings not exceeding two stories with not more than four dwelling units per floor.
 - 11.2. Buildings protected throughout by an approved automatic sprinkler system.
 - 11.3. Buildings with not more than four dwelling units per floor where every sleeping room above the second floor is provided with direct access to a fire escape or other approved second exit by means of an approved exterior door or window having a sill height of not greater than 44 inches (1118 mm) and the building is protected throughout by an automatic fire alarm system complying with Section 804.4.
12. One- and two-family dwellings.
13. Group S occupancies where connecting not more than two floor levels or where connecting not more than three floor levels and the structure is equipped throughout with an approved automatic sprinkler system.
14. Group S occupancies where vertical opening protection is not required for open parking garages and ramps.
15. In Group I-3 occupancies the vertical opening protection may be omitted if either of the following conditions is met:
 - 15.1. The building is in compliance with NFPA 101, Chapter 15; or

15.2. The building is equipped throughout with an automatic fire suppression system.

16. Vertical opening enclosure is not required where the vertical opening enclosure meets the code requirements under which the building was constructed or previously altered.

803.7 Fireblocking and draftstopping.

When the work being performed exposes the framing of any wall, floor, ceiling or roof, the exposed framing shall comply with Section 718 of the *North Carolina Building Code*.

Exception: One- and two-family dwellings shall comply with Sections R302.11 and R302.12 of the *North Carolina Residential Code*.

803.8 Group R mixed-use separation.

Any nonresidential occupancy that is located directly below Group R shall be 1- hour separated from the Group R occupancy. The 1-hour assembly is only required to be rated from the nonresidential side.

Exception: If the work area of the nonresidential occupancy is less than 50 percent of the gross floor area of the nonresidential occupancy, Section 803.8 shall not apply.

SECTION 804 FIRE PROTECTION

804.2 Automatic sprinkler systems.

Automatic sprinkler systems shall be provided in accordance with the requirements of Sections 804.2.1 through 804.2.56. Installation requirements shall be in accordance with the *International Building Code*.

804.2.1 High-rise buildings.

~~See Section 101.10. In high-rise buildings, work areas that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with automatic sprinkler protection in the entire work area where the work area is located on a floor that has a sufficient sprinkler water supply system from an existing standpipe or a sprinkler riser serving that floor.~~

~~**804.2.1.1 Supplemental automatic sprinkler system requirements.**~~

~~Where the work area on any floor exceeds 50 percent of that floor area, Section 804.2.1 shall apply to the entire floor on which the work area is located.~~

~~**Exception:** Occupied tenant spaces that are entirely outside the work area.~~

804.2.2 Groups A, B, E, F-1, H, I, M, R-1, R-2, R-4, S-1 and S-2. Low-rise buildings.

Work areas that increase the fire area or calculated occupant load above the limits listed in Sections 903.2.1 through 903.2.10 of the *North Carolina Building Code* shall meet the requirements of those sections.

~~In buildings with occupancies in Groups A, B, E, F-1, H, I, M, R-1, R-2, R-4, S-1 and S-2, work areas that have exits or corridors shared by more than one tenant or that have exits or~~

~~corridors serving an occupant load greater than 30 shall be provided with automatic sprinkler protection where all of the following conditions occur:~~

- ~~1. The work area is required to be provided with automatic sprinkler protection in accordance with the *International Building Code* as applicable to new construction; and~~
- ~~2. The work area exceeds 50 percent of the floor area.~~

~~**Exception:** If the building does not have sufficient municipal water supply for design of a fire sprinkler system available to the floor without installation of a new fire pump, work areas shall be protected by an automatic smoke detection system throughout all occupiable spaces other than sleeping units or individual dwelling units that activates the occupant notification system in accordance with Sections 907.4, 907.5 and 907.6 of the *International Building Code*.~~

804.2.2.1 Mixed uses.

~~In work areas containing mixed uses, one or more of which requires automatic sprinkler protection in accordance with Section 804.2.2, such protection shall not be required throughout the work area provided that the uses requiring such protection are separated from those not requiring protection by fire-resistance-rated construction having a minimum 2-hour rating for Group H and a minimum 1-hour rating for all other occupancy groups.~~

804.2.3 Windowless stories.

In all buildings, any windowless story located below the seventh story above grade which is created by the work being performed or any existing windowless story located below the seventh story in which the work area exceeds 50 percent of the gross enclosed floor area of the windowless story, shall be equipped throughout with an automatic fire suppression system installed in accordance with Section 903.2.11.1 of the *North Carolina Fire Code*.

Exceptions:

1. Stories or basements shall not be considered windowless where fire-fighter access through openings meeting all of the following is provided:
 - 1.1. Openings such as doors, windows, or access panels are located on at least one side of the story or basement;
 - 1.2. The openings on each story or basement shall be a minimum of 32 inches by 48 inches (813 mm by 1219 mm) in size and located horizontally a maximum of 100 feet (3048 mm) apart or 22 inches by 42 inches (558 mm by 1066 mm) in size and located horizontally a maximum of 30 feet (9144 mm) apart;
 - 1.3. Openings shall be unobstructed to allow firefighting and rescue operations from the exterior;

- 1.4. Openings in stories above grade shall have a sill height of not more than 36 inches (914 mm) measured from the finished floor level. Openings in basements shall have no sill height restrictions;
- 1.5. Where openings are provided only on one wall of a story or basement the maximum distance to the opposite wall is 75 feet (22 860 mm).
- 1.6. Where openings are provided only on one wall of a story or basement the maximum distance to the opposite wall is 75 feet (22 860 mm).
2. Windowless basements 3,000 gross square feet (279 m²) or less in area shall not require automatic fire suppression when a supervised automatic fire alarm is provided in accordance with Section 907 of the *North Carolina Fire Code*.
3. Windowless basements greater than 3,000 (279 m²) but less than 10,000 gross square feet (929 m²) shall be permitted to connect to the domestic water supply when all of the following conditions are met:
 - 3.1. The automatic fire suppression system shall be provided with a fire department connection, which shall be marked with a sign reading "Basement Area Sprinkler Water Supply;" and
 - 3.2. A supervised automatic fire alarm system shall be installed in accordance with Section 907 of the *North Carolina Fire Code*.

~~Work located in a windowless story, as determined in accordance with the *International Building Code*, shall be sprinklered where the work area is required to be sprinklered under the provisions of the *International Building Code* for newly constructed buildings and the building has a sufficient municipal water supply without installation of a new fire pump.~~

804.2.4 Other required automatic sprinkler systems. Deleted.

~~In buildings and areas listed in Table 903.2.11.6 of the *International Building Code*, work areas that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with an automatic sprinkler system under the following conditions:~~

- ~~1. The work area is required to be provided with an automatic sprinkler system in accordance with the *International Building Code* applicable to new construction; and~~
- ~~2. The building has sufficient municipal water supply for design of an automatic sprinkler system available to the floor without installation of a new fire pump.~~

804.2.5 Supervision.

All newly installed complete or partial sprinkler systems shall comply with Section 903.4 of the *North Carolina Building Code*.

Exception: Supervision is not required for the following:

1. Underground gate valve with roadway boxes.
2. Automatic sprinkler systems installed in accordance with NFPA 13R where a

common supply main is used to supply both domestic and automatic sprinkler systems and a separate shutoff valve for the automatic sprinkler system is not provided.

~~Fire sprinkler systems required by this section shall be supervised by one of the following methods:~~

- ~~1. Approved central station system in accordance with NFPA 72;~~
- ~~2. Approved proprietary system in accordance with NFPA 72;~~
- ~~3. Approved remote station system of the jurisdiction in accordance with NFPA 72; or~~
- ~~4. When approved by the *code official*, approved local alarm service that will cause the sounding of an alarm in accordance with NFPA 72.~~

Exception: Supervision is not required for the following:

- ~~1. Underground gate valve with roadway boxes.~~
- ~~2. Halogenated extinguishing systems.~~
- ~~3. Carbon dioxide extinguishing systems.~~
- ~~4. Dry- and wet-chemical extinguishing systems.~~
- ~~5. Automatic sprinkler systems installed in accordance with NFPA 13R where a common supply main is used to supply both domestic and automatic sprinkler systems and a separate shutoff valve for the automatic sprinkler system is not provided.~~

804.2.6 Group H.

An automatic sprinkler system shall be installed in all Group H occupancies complying with Section 903.2.5 of the *North Carolina Building Code*.

804.3 Standpipes. Deleted.

~~Where the *work area* includes exits or corridors shared by more than one tenant and is located more than 50 feet (15 240 mm) above or below the lowest level of fire department access, a standpipe system shall be provided. Standpipes shall have an approved fire department connection with hose connections at each floor level above or below the lowest level of fire department access. Standpipe systems shall be installed in accordance with the *International Building Code*.~~

Exceptions:

- ~~1. No pump shall be required provided that the standpipes are capable of accepting delivery by fire department apparatus of a minimum of 250 gallons per minute (gpm) at 65 pounds per square inch (psi) (946 L/m at 448KPa) to the topmost floor in buildings equipped throughout with an automatic sprinkler system or a minimum of 500 gpm at 65 psi (1892 L/m at 448KPa) to the topmost floor in all other buildings.~~

~~Where the standpipe terminates below the topmost floor, the standpipe shall be designed to meet (gpm/psi) (L/m/KPa) requirements of this exception for possible future extension of the standpipe.~~

~~2.—The interconnection of multiple standpipe risers shall not be required.~~

804.4 Fire alarm and detection.

Fire alarms and detection systems shall be installed in accordance with Sections 804.4.1 through 804.4.3

804.4.1 Fire alarms.

Work areas that do not have an existing fire alarm system are not required to install a fire alarm system. Work areas where new fire alarm systems are installed shall be in accordance with Section 907 of the *North Carolina Building Code*.

804.4.2 Smoke alarms.

Individual sleeping units and individual dwelling units in any *work area* in Group R and I-1 occupancies shall be provided with smoke alarms in accordance with Section 907.2.11 of the *North Carolina Building Code*. Smoke alarms for Group R occupancy are permitted to be radio frequency type appliances as allowed and installed by NFPA 72.

Exception: Interconnection of smoke alarms outside of the *work area* shall not be required.

804.4.2.1 Smoke detection Group R mixed use.

Any nonresidential occupancy work area located directly below Group R shall be provided with single- or multi-station smoke detectors complying with NFPA 72 and shall provide an audible alarm in each dwelling unit located on floors above the nonresidential work area. The detectors shall be AC powered with battery backup.

Exceptions:

1. Hardwired, interconnected smoke detectors installed throughout the building shall be accepted as complying with Section 804.4.2.1.
2. The work area of the nonresidential occupancy is less than 50 percent of the gross floor area of the nonresidential occupancy.

804.4.2.2 Smoke alarms in one- and two-family dwellings and townhouses.

Detached one- and two-family dwellings and townhouses shall be provided with smoke alarms installed in accordance with Section R314 of the *North Carolina Residential Code*.

804.4.3 Carbon monoxide alarms.

Individual sleeping units and individual dwelling units in Group R and I occupancies and classrooms in Group E occupancies shall be provided with carbon monoxide alarms in accordance with Section 915 of the *North Carolina Building Code*, except that the carbon monoxide alarms shall be allowed to be solely battery operated.

804.4.3.1 Carbon monoxide alarms in one- and two-family dwellings and townhouses.

Detached one- and two-family dwellings and townhouses shall be provided with carbon monoxide alarms installed in accordance with Section R315 of the *North Carolina Residential Code*.

~~An approved fire alarm system shall be installed in accordance with Sections 804.4.1 through 804.4.3. Where automatic sprinkler protection is provided in accordance with Section 804.2 and is connected to the building fire alarm system, automatic heat detection shall not be required.~~

~~An approved automatic fire detection system shall be installed in accordance with the provisions of this code and NFPA 72. Devices, combinations of devices, appliances, and equipment shall be approved. The automatic fire detectors shall be smoke detectors, except that an approved alternative type of detector shall be installed in spaces such as boiler rooms, where products of combustion are present during normal operation in sufficient quantity to actuate a smoke detector.~~

804.4.1 Occupancy requirements.

~~A fire alarm system shall be installed in accordance with Sections 804.4.1.1 through 804.4.1.7. Existing alarm notification appliances shall be automatically activated throughout the building. Where the building is not equipped with a fire alarm system, alarm notification appliances within the work area shall be provided and automatically activated.~~

Exceptions:

- ~~1. Occupancies with an existing, previously approved fire alarm system.~~
- ~~2. Where selective notification is permitted, alarm notification appliances shall be automatically activated in the areas selected.~~

804.4.1.1 Group E.

~~A fire alarm system shall be installed in work areas of Group E occupancies as required by the *International Fire Code* for existing Group E occupancies.~~

804.4.1.2 Group I-1.

~~A fire alarm system shall be installed in work areas of Group I-1 residential care/ assisted living facilities as required by the *International Fire Code* for existing Group I-1 occupancies.~~

804.4.1.3 Group I-2.

~~A fire alarm system shall be installed throughout Group I-2 occupancies as required by the *International Fire Code*.~~

804.4.1.4 Group I-3.

~~A fire alarm system shall be installed in work areas of Group I-3 occupancies as required by the *International Fire Code*.~~

804.4.1.5 Group R-1.

~~A fire alarm system shall be installed in Group R-1 occupancies as required by the *International Fire Code* for existing Group R-1 occupancies.~~

~~804.4.1.6 Group R-2.~~

~~A fire alarm system shall be installed in work areas of Group R-2 apartment buildings as required by the *International Fire Code* for existing Group R-2 occupancies.~~

~~804.4.1.7 Group R-4.~~

~~A fire alarm system shall be installed in work areas of Group R-4 residential care/ assisted living facilities as required by the *International Fire Code* for existing Group R-4 occupancies.~~

~~804.4.2 Supplemental fire alarm system requirements.~~

~~Where the work area on any floor exceeds 50 percent of that floor area, Section 804.4.1 shall apply throughout the floor.~~

~~**Exception:** Alarm-initiating and notification appliances shall not be required to be installed in tenant spaces outside of the work area.~~

~~804.4.3 Smoke alarms.~~

~~Individual sleeping units and individual dwelling units in any work area in Group R and I-1 occupancies shall be provided with smoke alarms in accordance with the *International Fire Code*.~~

~~**Exception:** Interconnection of smoke alarms outside of the work area shall not be required.~~

SECTION 805 MEANS OF EGRESS

805.2 General.

The means of egress shall comply with the requirements of this section.

Exceptions:

1. Where the *work area* and the means of egress serving it complies with NFPA 101.
2. Means of egress conforming to the requirements of the building code under which the building was constructed shall be considered compliant means of egress if, in the opinion of the *code official*, they do not constitute a distinct hazard to life.
3. In one- and two-family dwellings, stairways not required for egress shall be permitted to be a minimum width of 26 inches (660 mm).

805.2.1 Means of egress capacity.

The capacity of the means of egress in each work area shall be sufficient for the maximum permitted occupant load of the work area and any adjacent spaces served by that means of egress as calculated on a per floor basis. Means of egress shall be measured in units of exit width of 22 inches (559 mm). The maximum permitted occupant load of a space shall be determined by the capacity of the means of egress serving the space as calculated in accordance with Table 805.2.1. The building owner shall have the option of establishing a

reasonable restriction on the occupant load of the space based on the existing capacity of the means of egress or of providing additional egress capacity.

**TABLE 805.2.1^{a,b}
CAPACITY PER UNIT OF EGRESS WIDTH**

<u>Use Group</u>	<u>Number of Occupants</u>			
	<u>Without Fire Suppression</u>		<u>With Fire Suppression</u>	
	<u>Stairways</u>	<u>Doors, Ramps, and Corridors</u>	<u>Stairways</u>	<u>Doors, Ramps, and Corridors</u>
<u>A^c</u>	<u>75</u>	<u>100</u>	<u>113</u>	<u>150</u>
<u>B</u>	<u>60</u>	<u>100</u>	<u>90</u>	<u>150</u>
<u>E</u>	<u>75</u>	<u>100</u>	<u>113</u>	<u>150</u>
<u>F</u>	<u>60</u>	<u>100</u>	<u>90</u>	<u>150</u>
<u>H</u>	<u>NA</u>	<u>NA</u>	<u>60</u>	<u>100</u>
<u>I-1</u>	<u>60</u>	<u>100</u>	<u>90</u>	<u>100</u>
<u>I-2</u>	<u>22</u>	<u>30</u>	<u>35</u>	<u>45</u>
<u>I-3</u>	<u>60</u>	<u>100</u>	<u>90</u>	<u>150</u>
<u>M</u>	<u>60</u>	<u>100</u>	<u>90</u>	<u>150</u>
<u>R</u>	<u>75</u>	<u>100</u>	<u>113</u>	<u>150</u>
<u>S</u>	<u>60</u>	<u>100</u>	<u>90</u>	<u>150</u>

Unit of egress width = 22 inches

NA = Not Allowed

- a. The occupant load may be equal to the total number of occupants for which exit capacity is provided as determined by Table 805.2.1 above.
- b. Interpolation shall be allowed in determining capacity of egress width.
- c. For Use Group A occupancies, the resulting total occupant load shall not exceed one occupant per five square feet of net floor area over the entire use.

805.3.1.1 Single-exit buildings.

Only one exit is required from buildings and spaces of the following occupancies:

1. In Group A, B, E, F, M, U and S occupancies, a single exit is permitted in the story at the level of exit discharge when the occupant load of the story does not exceed ~~50~~ 49 and the exit access travel distance does not exceed 75 feet (22 860 mm).

Exception: Licensed Group E adult and child day care occupancies shall have a minimum of two exits. Rooms where occupants receive care are on the level of exit discharge and each of these rooms has an exit door directly to the exterior may have a single exit.

2. Group B, F-2, and S-2 occupancies not more than two stories in height that are not greater than 3,500 square feet per floor (326 m²), when the exit access travel

distance does not exceed 75 feet (22 860 mm). The minimum fire-resistance rating of the exit enclosure and of the opening protection shall be 1 hour.

3. Open parking structures where vehicles are mechanically parked.
4. In Group R-4 occupancies, the maximum occupant load excluding staff is 16.
5. Groups R-1 and R-2 not more than two stories in height, when there are not more than four dwelling units per floor and the exit access travel distance does not exceed 50 feet (15 240 mm). The minimum fire-resistance rating of the exit enclosure and of the opening protection shall be 1 hour.
6. In multilevel dwelling units in buildings of occupancy Group R-1 or R-2, an exit shall not be required from every level of the dwelling unit provided that one of the following conditions is met:
 - 6.1. The travel distance within the dwelling unit does not exceed 75 feet (22 860 mm); or
 - 6.2. The building is not more than three stories in height and all third-floor space is part of one or more dwelling units located in part on the second floor; and no habitable room within any such dwelling unit shall have a travel distance that exceeds 50 feet (15 240 mm) from the outside of the habitable room entrance door to the inside of the entrance door to the dwelling unit.
7. In Group R-2, H-4, H-5 and I occupancies and in rooming houses and child care centers, a single exit is permitted in a one-story building with a maximum occupant load of 10 and the exit access travel distance does not exceed 75 feet (22 860 mm).
8. In buildings of Group R-2 occupancy that are equipped throughout with an automatic fire sprinkler system, a single exit shall be permitted from a basement or story below grade if every dwelling unit on that floor is equipped with an approved window providing a clear opening of at least 5 square feet (0.47 m^2) in area, a minimum net clear opening of 24 inches (610 mm) in height and 20 inches (508 mm) in width, and a sill height of not more than 44 inches (1118 mm) above the finished floor.
9. In buildings of Group R-2 occupancy of any height with not more than four dwelling units per floor; with a smokeproof enclosure or outside stairway as an exit; and with such exit located within 20 feet (6096 mm) of travel to the entrance doors to all dwelling units served thereby.
10. In buildings of Group R-3 occupancy equipped throughout with an automatic fire sprinkler system, only one exit shall be required from basements or stories below grade.

11. Licensed Group R-4 adult and child day care rooms where occupants receive care and that meet all of the following shall have a minimum of one means of egress:

11.1. Located on the level of exit discharge, and

11.2. The egress door discharges directly to the exterior.

805.3.1.2.1 Fire escape access and details.

Fire escapes shall comply with all of the following requirements:

1. Occupants shall have unobstructed access to the fire escape without having to pass through a room subject to locking.
2. Access to a new fire escape shall be through a door, except that windows shall be permitted to provide access from single dwelling units or sleeping units in Group R-1, R-2 and I-1 occupancies or to provide access from spaces having a maximum occupant load of 10 in other occupancy classifications.
 - 2.1. The window shall have a minimum net clear opening of 5.7 square feet (0.53 m²) or 5 square feet (0.46 m²) where located at grade.
 - 2.2. The minimum net clear opening height shall be 24 inches (610 mm) and net clear opening width shall be 20 inches (508 mm).
 - 2.3. The bottom of the clear opening shall not be greater than 44 inches (1118 mm) above the floor.
 - 2.4. The operation of the window shall comply with the operational constraints of the *International Building Code*.
3. Newly constructed fire escapes shall be permitted only where exterior stairways cannot be utilized because of lot lines limiting the stairway size or because of the sidewalks, alleys, or roads at grade level.
4. Openings within 10 feet (3048 mm) of fire escape stairways shall be protected by fire assemblies having minimum $\frac{3}{4}$ -hour fire-resistance ratings.

Exception: Opening protection shall not be required in buildings equipped throughout with an approved automatic sprinkler system.

5. In all buildings of Group E occupancy, up to and including the 12th grade, buildings of Group I occupancy, ~~rooming~~ boarding houses and childcare centers, ladders of any type are prohibited on fire escapes used as a required means of egress.

805.3.2 Mezzanines.

Mezzanines in the *work area* and with an occupant load of more than ~~50~~49 or in which the travel distance to an exit exceeds 75 feet (22 860 mm) shall have access to at least two independent means of egress.

Exception: Two independent means of egress are not required where the travel distance to an exit does not exceed 100 feet (30 480 mm) and the building is protected throughout with an automatic sprinkler system.

805.3.3 Main entrance—Group A.

All Where the main entrance is included in the alteration, buildings of Group A with an occupant load of 300 or more shall be provided with a main entrance capable of serving as the main exit with an egress capacity of at least one-half of the total occupant load. The remaining exits shall be capable of providing one-half of the total required exit capacity.

Exception: Where there is no well-defined main exit or where multiple main exits are provided, exits shall be permitted to be distributed around the perimeter of the building provided that the total width of egress is not less than 100 percent of the required width.

805.4.1 Two egress doorways required.

Work areas shall be provided with two egress doorways in accordance with the requirements of Sections 805.4.1.1 and 805.4.1.~~23~~.

805.4.1.1 Occupant load and travel distance.

In any *work area*, all rooms and spaces having an occupant load ~~greater than 50~~ of 50 or more or in which the travel distance to an exit exceeds 75 feet (22 860 mm) shall have a minimum of two egress doorways.

Exceptions:

1. Storage rooms having a maximum occupant load of 10.
2. Where the *work area* is served by a single exit in accordance with Section 805.3.1.1.
3. The occupant load of the space may be restricted to comply with Section 1006 of the *North Carolina Building Code*. Signage indicating the allowed quantity of occupants shall be permanently mounted in the building at a location approved by the local fire marshal.

805.4.1.3 Group E licensed adult and child day care.

Group E and R-4 adult and child day care facilities shall have two means of egress. Rooms where occupants receive care and that meet all of the following shall have a minimum of one means of egress:

1. Located on the level of exit discharge, and
2. The egress door discharges directly to the exterior.

805.4.4.1 Supplemental requirements for panic hardware. Deleted.

~~Where the work area exceeds 50 percent of the floor area, panic hardware shall comply with Section 805.4.4 throughout the floor.~~

~~**Exception:** Means of egress within a tenant space that is entirely outside the work area.~~

805.4.5 Emergency power source in Groups I-2 and I-3.

Power operated sliding doors or power-operated locks for swinging doors shall be operable by a manual release mechanism at the door. Emergency power shall be provided for the doors and locks in accordance with Section 2702 of the *International Building Code*.

Exceptions:

1. Emergency power is not required in facilities with 10 or fewer locks complying with the exception to Section 408.4.1 of the *International Building Code*.
2. Emergency power is not required where remote mechanical operating releases are provided.

805.4.6 Group I-2 locks and latches.

Remote locking shall comply with Section 407.11 of the *North Carolina Building Code*.

805.6 Dead-end corridors.

Dead-end corridors in any *work area* shall not exceed 35 feet (10 670 mm).

Exceptions:

1. Where dead-end corridors of greater length are permitted by the *International Building Code*.
2. In other than Group A and H occupancies, the maximum length of an existing dead-end corridor shall be 50 feet (15 240 mm) in buildings equipped throughout with an automatic fire alarm system installed in accordance with the *International Building Code*.
3. In other than Group A and H occupancies, the maximum length of an existing dead-end corridor shall be 70 feet (21 356 mm) in buildings equipped throughout with an automatic sprinkler system installed in accordance with the *International Building Code*.
4. ~~Deleted. In other than Group A and H occupancies, the maximum length of an existing, newly constructed, or extended dead-end corridor shall not exceed 50 feet (15 240 mm) on floors equipped with an automatic sprinkler system installed in accordance with the *International Building Code*.~~

805.12 Emergency escape and rescue openings.

When the work being performed creates a classroom in a Group E occupancy or a bedroom below the fourth floor in a Group R occupancy, at least one window or exterior door shall comply with Section 1030 of the *North Carolina Building Code*.

SECTION 806 ACCESSIBILITY

806.1 General.

~~A building, facility, or element that is altered shall comply with this section and Section 705.~~
A facility that is altered shall comply with the applicable provisions in Sections 806.1.1 through 806.1.13, and Chapter 11 of the *International Building Code* unless it is *technically infeasible*. Where compliance with this section is *technically infeasible*, the alteration shall provide access to the maximum extent that is technically feasible.

A facility that is constructed or altered to be accessible shall be maintained accessible during occupancy.

Exceptions:

1. The altered element or space is not required to be on an accessible route unless required by Section 806.2.
2. Accessible means of egress required by Chapter 10 of the *International Building Code* are not required to be provided in existing *facilities*.
3. Type B dwelling or sleeping units required by Section 1107 of the *International Building Code* are not required to be provided in existing *facilities* undergoing less than a Level 3 alteration.
4. The alteration to Type A individually owned dwelling units within a Group R-2 occupancy shall meet the provisions for Type B dwelling units.

806.1.1 Entrances.

Where an alteration includes alterations to an entrance, and the facility has an accessible entrance on an accessible route, the altered entrance is not required to be accessible unless required by Section 806.2. Signs complying with Section 1111 of the *International Building Code* shall be provided.

806.1.2 Elevators.

Altered elements of existing elevators shall comply with ASME A17.1/CSA B44 and ICC A117.1. Such elements shall also be altered in elevators programmed to respond to the same hall call control as the altered elevator.

806.1.3 Platform lifts.

Platform (wheelchair) lifts complying with ICC A117.1 and installed in accordance with ASME A18.1 shall be permitted as a component of an accessible route.

806.1.3.1 Inclined stairway chairlifts.

Inclined stairway chairlifts that do not reduce the required means of egress and installed in accordance with ASME A18.1 shall be permitted as a component of an accessible route in alterations of existing occupancies in:

3. Religious organizations or entities controlled by religious organizations, including

places of worship; or

4. Private clubs or establishments exempted under Title II of the Civil Rights Act of 1964.

Such inclined stairway chairlifts shall be approved for commercial use by the manufacturer and installed by approved factory-trained installers.

806.1.4 Ramps.

Where steeper slopes than allowed by Section 1012.2 of the *International Building Code* are necessitated by space limitations, the slope of ramps in or providing access to existing facilities shall comply with Table 806.1.4.

TABLE 806.1.4
RAMPS

<u>SLOPE</u>	<u>MAXIMUM RISE</u>
Steeper than 1:10 but not steeper than 1:8	3 inches
Steeper than 1:12 but not steeper than 1:10	6 inches

For SI: 1 inch = 25.4 mm.

806.1.5 Dining areas.

An accessible route to raised or sunken dining areas or to outdoor seating areas is not required provided that the same services and decor are provided in an accessible space usable by any occupant and not restricted to use by people with a disability.

806.1.6 Jury boxes and witness stands.

In *alterations*, accessible wheelchair spaces are not required to be located within the defined area of raised jury boxes or witness stands and shall be permitted to be located outside these spaces where ramp or lift access poses a hazard by restricting or projecting into a required means of egress.

806.1.7 Accessible dwelling or sleeping units.

Where Group I-1, I-2, I-3, R-1, R-2 or R-4 dwelling or sleeping units are being altered, the requirements of Section 1107 of the *International Building Code* for Accessible units apply only to the quantity of the spaces being altered.

806.1.8 Type A dwelling or sleeping units.

Where 11 or more Group R-2 dwelling or sleeping units are being altered, the requirements of Section 1107 of the *International Building Code* for Type A units and Chapter 9 of the *International Building Code* for visible alarms apply only to the quantity of the spaces being altered.

806.1.9 Toilet rooms.

Where it is technically infeasible to alter existing toilet and bathing rooms to be accessible, an accessible family or assisted-use toilet or bathing room constructed in accordance with Section 1109.2.1 of the *International Building Code* is permitted. The family or assisted-use toilet or bathing room shall be located on the same floor and in the same area as the existing toilet or bathing rooms. At the inaccessible toilet and bathing rooms, directional

signs indicating the location of the nearest family or assisted-use toilet room or bathing room shall be provided. These directional signs shall include the International Symbol of Accessibility and sign characters shall meet the visual character requirements in accordance with ICC A117.1.

806.1.10 Dressing, fitting and locker rooms.

Where it is *technically infeasible* to provide accessible dressing, fitting, or locker rooms at the same location as similar types of rooms, one accessible room on the same level shall be provided. Where separate sex facilities are provided, accessible rooms for each sex shall be provided. Separate sex facilities are not required where only unisex rooms are provided.

806.1.11 Fuel dispensers.

Operable parts of replacement fuel dispensers shall be permitted to be 54 inches (1370 mm) maximum measured from the surface of the vehicular way where fuel dispensers are installed on existing curbs.

806.1.12 Thresholds.

The maximum height of thresholds at doorways shall be $\frac{3}{4}$ inch (19.1 mm). Such thresholds shall have beveled edges on each side.

806.1.13 Extent of application.

An *alteration* of an existing element, space, or area of a *facility* shall not impose a requirement for greater accessibility than that which would be required for new construction. *Alterations* shall not reduce or have the effect of reducing accessibility of a *facility* or portion of a *facility*.

806.2 Alterations affecting an area containing a primary function.

Where an *alteration* affects the accessibility to a, or contains an area of, *primary function*, the route to the primary function area shall be accessible. The accessible route to the *primary function* area shall include toilet facilities and drinking fountains serving the area of *primary function*.

Exceptions:

1. The costs of providing the accessible route are not required to exceed 20 percent of the costs of the alterations affecting the area of *primary function*.
2. This provision does not apply to *alterations* limited solely to windows, hardware, operating controls, electrical outlets and signs.
3. This provision does not apply to *alterations* limited solely to mechanical systems, electrical systems, installation or *alteration* of fire protection systems and abatement of hazardous materials.
4. This provision does not apply to *alterations* undertaken for the primary purpose of increasing the accessibility of a *facility*.
5. This provision does not apply to altered areas limited to Type B dwelling and sleeping units.

806.23 Stairways and escalators in existing buildings.

In *alterations* where an escalator or stairway is added where none existed previously, an accessible route shall be provided in accordance with Sections 1104.4 and 1104.5 of the *International Building Code*.

SECTION 807 STRUCTURAL

[BS] 807.4 Existing structural elements carrying gravity loads.

Alterations shall not reduce the capacity of existing gravity load-carrying structural elements unless it is demonstrated that the elements have the capacity to carry the applicable design gravity loads required by the *International Building Code*. Existing structural elements supporting any additional gravity loads as a result of the *alterations*, including the effects of snow drift, shall comply with the *International Building Code*.

Exceptions:

1. Structural elements whose stress is not increased by more than ~~5-10~~ percent.
2. Buildings of Group R occupancy ~~with not more than five dwelling or sleeping units~~ used solely for residential purposes where the *existing building* and its *alteration* comply with the conventional light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.

SECTION 811 ENERGY CONSERVATION

811.1 Minimum requirements.

Level 2 *alterations* to *existing buildings* or structures are permitted without requiring the entire building or structure to comply with the energy requirements of the *International Energy Conservation Code* or *International Residential Code*. The *alterations* shall conform to the energy requirements of this section and Section 708. ~~the *International Energy Conservation Code* or *International Residential Code* as they relate to new construction only.~~

811.1.1 Building envelope.

New building envelope assemblies that are part of the *alteration* shall comply with Section R402 of the *North Carolina Energy Conservation Code* for *residential buildings* and Section C402 of the *North Carolina Energy Conservation Code* for *commercial buildings*.

811.1.2 Heating and cooling systems.

New heating, cooling and duct systems that are part of the *alteration* shall comply with Sections R403.1, R403.2, R403.3, R403.4, R403.6, and R403.7 of the *North Carolina Energy Conservation Code* for *residential buildings* and Section C403 of the *North Carolina Energy Conservation Code* for *commercial buildings*.

Exceptions:

1. In *residential buildings*, an *alteration* involving a partial system replacement to an existing duct system shall not require a duct leakage test.

2. Compliance with Section C403.2.12 of the *North Carolina Energy Conservation Code* is not required.
3. Compliance with Section C403.3 of the *North Carolina Energy Conservation Code* is not required where compliance with the section would require *alterations* to existing floor, wall or roof assemblies.

811.1.3 Service hot water systems.

New service hot water systems that are part of the *alteration* shall comply with Section R403.5 of the *North Carolina Energy Conservation Code* for *residential buildings* and Section C404 of the *North Carolina Energy Conservation Code* for *commercial buildings*.

811.1.4 Lighting.

New lighting systems that are part of the *alteration* shall comply with Section R404.1 of the *North Carolina Energy Conservation Code* for *residential buildings* and Section C405 of the *North Carolina Energy Conservation Code* for *commercial buildings*

Exception: *Alterations* that replace less than 50 percent of the luminaires in a space, provided that such *alterations* do not increase the installed interior lighting power.

811.1.5 Change in space conditioning.

In addition to the requirement of Section 811.1, projects changing unconditioned space to conditioned space and costing more than \$10,000 shall require 10 percent of the project cost to be used toward meeting the requirements of Chapter 11 of the *North Carolina Residential Code* for one- and two-family dwellings and townhouses or the *North Carolina Energy Conservation Code*. Project costs for the purpose of this section is the total project cost listed on all permits related to the work required to convert the unconditioned space to conditioned space and excludes the 10 percent added from this section. Under this section, existing building envelope elements that become a part of the building thermal envelope and are not changed are not required to be upgraded. The additional 10 percent of the project cost shall be appropriated for additional energy conservation features of choice that are addressed in Chapter 11 of the *North Carolina Residential Code* for one- and two-family dwellings and townhouses or the *North Carolina Energy Conservation Code*. In addition to the 10 percent project cost, any existing wall, ceiling, or floor cavities that are exposed during construction shall at a minimum be insulated to comply with Chapter 11 of the *North Carolina Residential Code* for one- and two-family dwellings and townhouses or the *North Carolina Energy Conservation Code* or be insulated to fill the cavity, whichever is less. Roof systems requiring air space for ventilation shall retain the ventilation space required. Projects costing less than \$10,000 are not subject to the 10 percent project cost addition provision.

CHAPTER 9 ALTERATIONS—LEVEL 3

SECTION 901 GENERAL

901.2 Compliance.

In addition to the provisions of this chapter, work shall comply with all of the requirements of Chapters 7 and 8. The requirements of Sections 803, 804 and 805 shall apply within all *work areas* whether or not they include exits and corridors shared by more than one tenant and regardless of the occupant load.

Exception: Buildings in which the reconfiguration of space affecting exits or shared egress access is exclusively the result of compliance with the accessibility requirements of Section ~~705.2~~ 806.2 shall not be required to comply with this chapter.

SECTION 902 SPECIAL USE AND OCCUPANCY

902.1 High-rise buildings.

Any building having occupied floors more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access shall comply with the requirements of Sections 902.1.1 ~~and~~ through 902.1-~~23~~.

902.1.3 Luminous egress path markings.

Luminous egress markings shall be installed as required by Section 1025 of the *North Carolina Building Code*.

902.3 Group H.

Where the work area includes a Group H occupancy, the building shall comply with all the requirements of the *North Carolina Building Code* for the Group H occupancy.

SECTION 903 BUILDING ELEMENTS AND MATERIALS

903.2 Fire ~~partitions~~ separation in Group R-3.

Fire separation in Group R-3 occupancies shall be in accordance with Section 903.2.1.

903.2.1 Separation required.

Where the *work area* is in any attached dwelling unit in Group R-3 ~~or~~, any multiple single-family dwelling (townhouse) or any two-family dwellings, walls separating the dwelling units that are not continuous from the foundation to the underside of the roof sheathing shall be constructed to provide a continuous fire separation using construction materials consistent with the existing wall or complying with the requirements for new structures. All work shall be performed on the side of the dwelling unit wall that is part of the *work area*.

Exceptions:

1. Where *alterations* or *repairs* do not result in the removal of wall or ceiling finishes exposing the structure, walls are not required to be continuous through concealed floor spaces.
2. If not currently existing, separation is not required in the crawl space of two-family dwellings.

SECTION 904 FIRE PROTECTION

904.1.1 ~~High-rise buildings.~~ Other required automatic sprinkler systems.

~~An automatic sprinkler system shall be provided in work areas where the high-rise building has a sufficient municipal water supply for the design and installation of an automatic sprinkler system at the site.~~

In buildings and areas listed in Table 903.2.11.6 of the *North Carolina Building Code*, *work areas* that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with an automatic sprinkler system under the following conditions:

1. The *work area* is required to be provided with an automatic sprinkler system in accordance with the *North Carolina Building Code* applicable to new construction;
2. The building has sufficient municipal water supply for design of an automatic sprinkler system available to the floor without installation of a new water storage tank; and
3. The work area is separated from the remainder of the building with fire barriers complying with the *North Carolina Building Code*.

904.1.2 Rubbish and linen chutes. Deleted.

~~Rubbish and linen chutes located in the work area shall be provided with automatic sprinkler system protection or an approved automatic fire extinguishing system where protection of the rubbish and linen chute would be required under the provisions of the *International Building Code* for new construction.~~

904.1.3 Upholstered furniture or mattresses. Deleted.

~~Work areas shall be provided with an automatic sprinkler system in accordance with the *International Building Code* where any of the following conditions exist:~~

- ~~1. A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet (232 m²).~~
- ~~2. A Group M occupancy used for the display and sale of upholstered furniture or mattresses exceeds 5,000 square feet (464 m²).~~
- ~~3. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds 2,500 square feet (232 m²).~~

904.2 Fire alarm and detection systems.

Fire alarm and detection shall be provided in accordance with Section ~~907 of the *International Building Code* as required for new construction~~ 804.4.

904.3 Standpipes.

Where the work area includes exits or corridors shared by more than one tenant and is located more than 30 feet (15 240 mm) above or below the lowest level of fire department access, a standpipe system shall be provided. Standpipes shall have an approved fire department connection with hose connections at each floor level above or below the lowest level of fire department access. Standpipe systems shall be installed in accordance with the *North Carolina Building Code*. Standpipes systems shall be provided for high-rise buildings as required by North Carolina General Statute 143-138, Section (i).

Exception: The interconnection of multiple standpipe risers shall not be required.

SECTION 906 ACCESSIBILITY

906.1 General.

A building, facility or element that is altered shall comply with this section and Sections ~~705 and~~ 806.

SECTION 907 STRUCTURAL

[BS] 907.4 Existing structural elements resisting lateral loads.

Existing structural elements resisting lateral loads shall comply with Section 807.5. Sections 907.4.1 through 907.4.6 shall apply when existing elements of the lateral force-resisting system have been damaged due to a wind or seismic event. Repair work such as termite or rot damage shall comply with Section 606.1.

~~All existing elements of the lateral force-resisting system shall comply with this section.~~

Exceptions:

1. Buildings of Group R occupancy ~~with no more than five dwelling or sleeping units~~ used solely for residential purposes that are altered based on the conventional light-frame construction methods of the *International Building Code* or in compliance with the provisions of the *International Residential Code*.
2. ~~Where such alterations involve only the lowest story of a building and the change of occupancy provisions of Chapter 10 do not apply, only the lateral force-resisting components in and below that story need comply with this section.~~ Deleted.

[BS] 907.4.3 Seismic Design Category F. Deleted.

~~Where the building is assigned to Seismic Design Category F, the evaluation and analysis shall demonstrate that the lateral load-resisting system of the altered building or structure complies with reduced *International Building Code* level seismic forces in accordance with Section 301.1.4.2 and with the wind provisions applicable to a limited structural alteration.~~

[BS] 907.4.4 Limited structural alteration.

Where the work does not involve a substantial structural *alteration* ~~and the building is not assigned to Seismic Design Category F~~, the existing elements of the lateral load-resisting system shall comply with Section 807.5.

SECTION 908 ENERGY CONSERVATION

908.1 Minimum requirements.

Level 3 *alterations* to existing buildings or structures are permitted without requiring the entire building or structure to comply with the energy requirements of the *International Energy Conservation Code* or *International Residential Code*. The *alterations* shall conform to this section and Sections 708 and 811. ~~the energy requirements of the *International Energy Conservation Code* or *International Residential Code* as they relate to new construction only.~~

908.1.1 Building envelope.

New building envelope assemblies that are part of the *alteration* shall comply with Section R402 of the *North Carolina Energy Conservation Code* for residential buildings and Section C402 of the *North Carolina Energy Conservation Code* for commercial buildings.

908.1.1.1 Vertical fenestration.

The addition of *vertical fenestration* that results in a total building *fenestration* area less than or equal to that specified in Section C402.4.1 of the *North Carolina Energy Conservation Code* shall comply with Section C402.4 of the *North Carolina Energy Conservation Code*. The addition of *vertical fenestration* that results in a total building *fenestration* area greater than Section C402.4.1 of the *North Carolina Energy Conservation Code* shall comply with Section C407 of the *North Carolina Energy Conservation Code*.

908.1.1.2 Skylight area.

The addition of skylight area that results in a total building skylight area less than or equal to that specified in Section C402.4.1 of the North Carolina Energy Conservation Code shall comply with Section C402.4 of the North Carolina Energy Conservation Code. The addition of skylight area that results in a total building skylight area greater than Section C402.4.1 of the North Carolina Energy Conservation Code shall comply with Section C407 of the North Carolina Energy Conservation Code. Alterations that result in a total building skylight area exceeding that specified in Section C402.4.1 of the North Carolina Energy Conservation Code shall comply with Section C407 of the North Carolina Energy Conservation Code.

CHAPTER 10 CHANGE OF OCCUPANCY

SECTION 1001 GENERAL

1001.1 Scope.

The provisions of this chapter shall apply where a *change of occupancy* occurs, as defined in Section 202, including:

1. Where the occupancy use is changed; or
2. Where there is a change in occupancy classification or the occupancy group designation changes.

Any repair or alteration work undertaken in connection with a change of occupancy shall conform to the other applicable chapters of this code.

~~1001.2 Certificate of occupancy.~~

~~A change of occupancy or a change of occupancy within a space where there is a different fire protection system threshold requirement in Chapter 9 of the International Building Code shall not be made to any structure without the approval of the code official. A certificate of occupancy shall be issued where it has been determined that the requirements for the change of occupancy have been met.~~

~~1001.2.1 Change of use.~~

~~Any work undertaken in connection with a change in use that does not involve a change of occupancy classification or a change to another group within an occupancy classification~~

shall conform to the applicable requirements for the work as classified in Chapter 5 and to the requirements of Sections 1002 through 1011.

Exception: As modified in Section 1205 for *historic buildings*.

1001.2 Change in occupancy with no change of occupancy classification.

A change in occupancy, as defined in Section 202, with no *change of occupancy* classification shall not be made to any structure that will subject the structure to any special provisions of the applicable *International Codes*, including the provisions of Sections 1002 through 1011, without the approval of the *code official*. A certificate of occupancy shall be issued where it has been determined that the requirements for the change in occupancy have been met.

1001.2.1 Additional requirements for Group A-2 nightclubs.

When a Group A-2 occupancy changes the use to a nightclub, fire protection shall be provided in accordance with Section 1012.2 in addition to the requirements of Section 1001.2.

1001.2.2 Repair and alteration with no change of occupancy classification.

Any *repair* or *alteration* work undertaken in connection with a *change of occupancy* that does not involve a *change of occupancy* classification shall conform to the applicable requirements for the work as classified in Chapter 5 and to the requirements of Sections 1002 through 1011.

Exception: As modified in Section 1205 for *historic buildings*.

1001.2.23 Change or partial change of occupancy classification or group.

Where the occupancy classification ~~of a building~~ changes, the provisions of Sections 1002 through 1012 shall apply. This includes a *change of occupancy* classification within a group as well as a *change of occupancy* classification from one group to a different group ~~and a change to another group within an occupancy classification.~~

1001.2.23.1 Partial change of occupancy. Deleted.

~~Where the occupancy classification or group of a portion of an existing building is changed, Section 1012 shall apply.~~

1001.3 Certificate of occupancy required.

A new certificate of occupancy shall be ~~issued~~ required where a *change of occupancy* occurs that results in a different occupancy classification as determined by Chapter 3 of the *International Building Code*.

SECTION 1004 FIRE PROTECTION

1004.1 General.

Fire protection requirements of Section 1012 shall apply where a building or portions thereof undergo a *change of occupancy* classification ~~or where there is a change of occupancy within a space where there is a different fire protection system threshold requirement in Chapter 9 of the *International Building Code*.~~

SECTION 1006 ACCESSIBILITY

1006.1 General.

Accessibility in portions of buildings undergoing a *change of occupancy* classification shall comply with Section 1012.89.

SECTION 1007 STRUCTURAL

[BS] 1007.1 Gravity loads.

Buildings or portions thereof subject to a *change of occupancy* where such change in the nature of occupancy results in higher uniform or concentrated loads based on Table 1607.1 of the *International Building Code* shall comply with the gravity load provisions of the *International Building Code*.

Exceptions:

1. Structural elements whose stress is not increased by more than ~~5~~ 10 percent.
2. A change of occupancy from Group R-3 to Group B or E occupancy is permitted when the gravity live load is increased by 10 pounds per square foot (0.48 kN/m²) or less.

SECTION 1008 ELECTRICAL

1008.3 Service upgrade.

Where the occupancy of an *existing building* or part of an *existing building* is changed such that the new load requires an increase in service, the electrical service shall be upgraded to meet the requirements of NFPA 70 for the new occupancy.

SECTION 1011 OTHER REQUIREMENTS

1011.1 Light and ventilation.

Natural light and natural ventilation shall comply with the requirements of the *International Building Code* or North Carolina Residential Code for the new occupancy.

SECTION 1012 CHANGE OF OCCUPANCY CLASSIFICATION

1012.1 General.

The provisions of this section shall apply to buildings or portions thereof undergoing a change of occupancy classification. This includes a change of occupancy classification within a group as well as a change of occupancy classification from one group to a different group or where there is a change of occupancy within a space where there is a different fire protection system threshold requirement in Chapter 9 of the *International Building Code*. Such buildings shall also comply with Sections 1002 through 1011. The application of requirements for the change of

occupancy shall be as set forth in Sections 1012.1.1 through 1012.1.4. A *change of occupancy*, as defined in Section 202, without a corresponding change of occupancy classification shall comply with Section 1001.2. For the purposes of this section, Group R-3 shall also include detached one- and two-family dwellings and townhouses.

1012.1.1 Compliance with Chapter 9.

Where alteration work is required by the change of occupancy classification the requirements of Chapter 9 shall be applicable throughout the building for the most restrictive occupancy classification. ~~new occupancy classification based on the separation conditions set forth in Sections 1012.1.1.1 and 1012.1.1.2.~~

Exception: Where a portion of an existing building that is changed to a new occupancy classification and that portion is separated from the remainder of the building with fire barriers having a fire-resistance rating as required in the International Building Code for the separate occupancy, that portion shall comply with all of the requirements of Chapter 9 of this code for the most restrictive occupancy in the fire area and with the requirements of this chapter.

1012.1.1.1 Change of occupancy classification without separation. Deleted.

~~Where a portion of an existing building is changed to a new occupancy classification or where there is a change of occupancy within a space where there is a different fire protection system threshold requirement in Chapter 9 of the International Building Code, and that portion is not separated from the remainder of the building with fire barriers having a fire-resistance rating as required in the International Building Code for the separate occupancy, the entire building shall comply with all of the requirements of Chapter 9 applied throughout the building for the most restrictive occupancy classification in the building and with the requirements of this chapter.~~

1012.1.1.2 Change of occupancy classification with separation. Deleted.

~~Where a portion of an existing building is changed to a new occupancy classification or where there is a change of occupancy within a space where there is a different fire protection system threshold requirement in Chapter 9 of the International Building Code, and that portion is separated from the remainder of the building with fire barriers having a fire-resistance rating as required in the International Building Code for the separate occupancy, that portion shall comply with all of the requirements of Chapter 9 for the new occupancy classification and with the requirements of this chapter.~~

1012.1.4 Accessibility.

All buildings undergoing a change of occupancy classification shall comply with Section 1012.89.

1012.2.1 Fire sprinkler system.

~~Where a change in occupancy classification occurs or where there is a change of occupancy within a space where there is a different fire protection system threshold requirement in Chapter 9 of the International Building Code that requires an automatic fire sprinkler system to be provided based on the new occupancy in accordance with Chapter 9 of the International Building Code, such system shall be provided throughout the area where the change of occupancy occurs.~~ Hazard categories in regard to fire sprinkler requirements shall be in accordance with Table 1012.2.1.

TABLE 1012.2.1

SPRINKLER HAZARD CATEGORIES

<u>RELATIVE HAZARD</u>	<u>OCCUPANCY USE CLASSIFICATIONS</u>
<u>1 (Highest Hazard)</u>	<u>H, I, Nightclub</u>
<u>2</u>	<u>A-2, R-1, R-2</u>
<u>3</u>	<u>A-1, A-3</u>
<u>4</u>	<u>F-1, M, S-1</u>
<u>5</u>	<u>A-4, E</u>
<u>6 (Lowest Hazard)</u>	<u>B, F-2, R-3, R-4, S-2, U</u>

1012.2.1.1 Change to higher hazard category.

When a change of use is made to a higher hazard category as shown in Table 1012.2.1, the building shall be provided with an automatic fire suppression system as required by Section 903 of the North Carolina Building Code.

Exception: When an area of a building is changed to a higher hazard category and the proposed use is separated from the existing use(s) by assemblies that meet the applicable fire rating in Table 508.4 of the North Carolina Building Code, an automatic fire suppression system as required above shall be installed only in the area changed.

1012.2.1.2 Change to equal or lesser hazard category.

When a change of use is made to an equal or lesser hazard category as shown in Table 1012.2.1, there is no requirement to install an automatic fire suppression system.

Exceptions:

1. In areas where work being performed in connection with the change of use triggers a requirement for suppression.
2. In windowless stories an automatic fire suppression system shall be installed as required by Section 903 of the North Carolina Building Code.

1012.2.1.3 Change in NFPA 13 hazard level.

Notwithstanding the relative hazard as determined by Table 1012.2.1, when a change in the character of the use is made to a higher degree of hazard as defined by NFPA 13 (Light Hazard, Ordinary Hazard Group 1, Ordinary Hazard Group 2, Extra Hazard Group 1, Extra Hazard Group 2 and Special Occupancy Hazards), the sprinkler system shall be evaluated and, where required by NFPA 13, altered to conform to the required density and maximum sprinkler protection area per head for the proposed occupancy.

1012.2.2 Fire alarm and detection system and carbon monoxide alarm system.

Where a change in occupancy classification occurs or where there is a change of occupancy within a space where there is a different fire protection system threshold requirement in Chapter 9 of the *International Building Code* that requires a fire alarm and detection system or carbon monoxide alarm system to be provided based on the new occupancy in accordance with Chapter 9 of the *International Building Code*, such system shall be provided throughout the area where the *change of occupancy* occurs. Existing alarm notification appliances shall be automatically activated throughout the building. Where the building is not equipped with a fire alarm system, alarm notification appliances shall be

provided throughout the area where the *change of occupancy* occurs in accordance with Section 907 of the *International Building Code* as required for new construction.

**TABLE 1012.4
MEANS OF EGRESS HAZARD CATEGORIES**

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	I-2, I-3, I-4
3	A, E, I-1, M, R-1, R-2, R-4
4	B, F-1, R-3 ^a , S-1
5 (Lowest Hazard)	F-2, S-2, U

a. Detached one- and two-family dwellings and townhouses are relative hazard 5.

1012.4.1 Means of egress for change to higher hazard category.

When a change of occupancy classification is made to a higher hazard category (lower number) as shown in Table 1012.4, the means of egress shall comply with the requirements of Chapter 10 of the *International Building Code*.

Exceptions:

1. Stairways shall be enclosed in compliance with the applicable provisions of Section 903.1.
2. Existing stairways including handrails and guards complying with the requirements of Chapter 9 shall be permitted for continued use subject to approval of the *code official*.
3. Any stairway replacing an existing stairway within a space where the pitch or slope cannot be reduced because of existing construction shall not be required to comply with the maximum riser height and minimum tread depth requirements.
4. Existing corridor walls constructed on both sides of wood lath and plaster in good condition or $\frac{1}{2}$ -inch-thick (12.7 mm) gypsum wallboard shall be permitted where 1-hour rated separation is required. Such walls shall either terminate at the underside of a ceiling of equivalent construction or extend to the underside of the floor or roof next above.
5. Existing corridor doorways, transoms and other corridor openings shall comply with the requirements in Sections 805.5.1, 805.5.2 and 805.5.3.
6. Existing dead-end corridors shall comply with the requirements in Section 805.6.
7. An existing operable window with clear opening area no less than 4 square feet (0.38 m²) and minimum opening height and width of 22 inches (559 mm) and 20 inches (508 mm), respectively, shall be accepted as an emergency escape and rescue opening.

1012.4.3 Egress capacity.

Egress capacity shall meet or exceed the occupant load as specified in the *International Building Code* for the new occupancy.

Exception: The occupant load of the space may be restricted to comply with Section 1006 of the *North Carolina Building Code*. Signage indicating the allowed quantity of occupants shall be permanently mounted in the building at a location approved by the local fire marshal.

**TABLE 1012.5
HEIGHTS AND AREAS HAZARD CATEGORIES**

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H ^a
2	A-1, A-2, A-3, A-4, I ^a , R-1, R-2, R-4
3	E, F-1, R-1, R-2, R-4, S-1, M
4 (Lowest Hazard)	B, F-2, S-2, A-5, R-3, U

a. H-1 and I-2 are not permitted in Type VB construction.

**TABLE 1012.6
EXPOSURE OF EXTERIOR WALLS HAZARD CATEGORIES**

RELATIVE HAZARD	OCCUPANCY CLASSIFICATION
1 (Highest Hazard)	H
2	F-1, M ^a , S-1
3	A, B, E, I, R
4 (Lowest Hazard)	F-2, S-2, U

a. Group M occupancy of 12,000 square feet (1114 m²) or less shall be relative hazard category 3.

1012.7.1 Minimum requirements.

Vertical shafts shall be designed to meet the *International Building Code* requirements for atriums or the requirements of this section.

Exception: Shafts for Group M occupancies in buildings that are less than 3,000 square feet (278 m²) or less per floor and three stories or less are not required to be enclosed.

1012.7.4 Openings.

All openings into existing fire resistance rated vertical shaft enclosures shall be protected by fire assemblies having a fire protection rating of not less than 1 hour and shall be maintained self-closing or shall be automatic-closing by actuation of a smoke detector. All other openings shall be fire protected in an approved manner. Existing fusible link-type automatic door-closing devices shall be permitted in all shafts except stairways if the fusible link rating does not exceed 135°F (57°C).

1012.8 Dwelling unit separation.

1012.8.1 Townhouses.

Existing buildings that establish new townhouse dwelling units shall comply with separation requirements of Section R302.2 of the North Carolina Residential Code and related subsections.

1012.8.2 Two-family dwellings.

Existing buildings that establish new detached two-family dwelling units shall comply with separation requirements of Section R302.3 of the North Carolina Residential Code and related subsections.

1012.8.3 Group I-1, R-1, R-2 or R3.

Existing buildings that establish new Group I-1, R-1, R-2 or R-3 dwelling or sleeping units shall comply with separation requirements of Section 420 of the North Carolina Building Code.

1012.89 Accessibility.

Existing buildings that undergo a change of group or occupancy classification shall comply with this section.

Exception: Type B dwelling or sleeping units required by Section 1107 of the *International Building Code* are not required to be provided in existing buildings and facilities undergoing a *change of occupancy* in conjunction with less than a Level 3 *alteration*.

1012.89.1 Partial change in occupancy.

Where a portion of the building is changed to a new occupancy classification, any *alteration* shall comply with Sections ~~705~~, 806 and 906, as applicable.

1012.89.2 Complete change of occupancy.

Where an entire building undergoes a *change of occupancy*, it shall comply with Section 1012.89.1 and shall have all of the following accessible features:

1. At least one accessible building entrance.
2. At least one accessible route from an accessible building entrance to *primary function* areas.
3. Signage complying with Section 1111 of the *International Building Code*.
4. Accessible parking, where parking is provided.
5. At least one accessible passenger loading zone, where loading zones are provided.
6. At least one accessible route connecting accessible parking and accessible passenger loading zones to an accessible entrance.

Where it is *technically infeasible* to comply with the new construction standards for any of these requirements for a change of group or occupancy, the above items shall conform to the requirements to the maximum extent technically feasible.

Exception: The accessible features listed in Items 1 through 6 are not required for an accessible route to Type B units.

CHAPTER 11 ADDITIONS

SECTION 1102 HEIGHTS AND AREAS

1102.3 Fire protection systems.

Existing fire areas increased by the *addition* shall comply with Chapter 9 of the *International Building Code*.

Exception: This requirement shall not apply to increases to the allowable fire area of 5 percent or less.

SECTION 1103 STRUCTURAL

[BS] 1103.2 Additional gravity loads.

Existing structural elements supporting any additional gravity loads as a result of additions shall comply with the *International Building Code*.

Exceptions:

1. Structural elements whose stress is not increased by more than ~~5~~ 10 percent.

2. Buildings of Group R occupancy ~~with no more than five dwelling units or sleeping units~~ used solely for residential purposes where the *existing building* and the *addition* comply with the conventional lightframe construction methods of the *International Building Code* or the provisions of the *International Residential Code*.

[BS] 1103.3 Lateral force-resisting system.

The lateral force-resisting system of *existing buildings* to which additions are made shall comply with Sections 1103.3.1, 1103.3.2 and 1103.3.3.

Exceptions:

1. Buildings of Group R occupancy ~~with no more than five dwelling or sleeping units~~ used solely for residential purposes where the *existing building* and the *addition* comply with the conventional light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.
2. Any existing lateral load-carrying structural element whose demand-capacity ratio with the addition considered is not more than 10 percent greater than its demand-capacity ratio with the addition ignored shall be permitted to remain unaltered. For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacities shall account for the cumulative effects of additions and alterations since original construction. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations involving *International Building Code*-level seismic forces in accordance with Section 301.1.4.1.

[BS] 1103.4 Snow drift loads.

Any structural element of an *existing building* subjected to additional loads from the effects of snow drift as a result of an *addition* shall comply with the *International Building Code*.

Exceptions:

1. Structural elements whose stress is not increased by more than ~~5~~ 10 percent.
2. Buildings of Group R occupancy ~~with no more than five dwelling units or sleeping units~~ used solely for residential purposes where the *existing building* and the *addition* comply with the conventional lightframe construction methods of the *International Building Code* or the provisions of the *International Residential Code*.

SECTION 1104

SMOKE AND CARBON MONOXIDE ALARMS ~~IN OCCUPANCY GROUPS R AND I-1~~

1104.1 Smoke alarms in existing portions of a building.

Where an *addition* is made to a building or structure of a Group R or I-1 occupancy, the *existing building* shall be provided with smoke alarms as required by Section 907.2.11 of the *North Carolina Building Code* ~~Section 1103.8 of the *International Fire Code*~~ or Section R314 of the *International Residential Code* as applicable.

1104.2 Carbon monoxide alarms in existing portions of a building.

Where an *addition* is made to a building or structure of a Group I-1, I-2, I-4 or R occupancies, or classrooms are added in Group E occupancies, the *existing building* shall be provided with carbon monoxide alarms in accordance with Section 915 of the *North Carolina Building Code* or Section R315 of the *North Carolina Residential Code*, except that the carbon monoxide alarms shall be allowed to be solely battery operated.

SECTION 1105 ACCESSIBILITY

1105.1 Minimum requirements.

Accessibility provisions for new construction shall apply to additions. An addition that affects the accessibility to, an area of *primary function* or contains an area of, *primary function* shall comply with the requirements of Sections ~~705~~, 806 and 906, as applicable.

1105.3 Type A dwelling or sleeping units.

Where 11 or more ~~than 20~~ Group R-2 dwelling or sleeping units are being added, the requirements of Section 1107 of the *International Building Code* for Type A units and Chapter 9 of the *International Building Code* for visible alarms apply only to the quantity of the spaces being added.

SECTION 1106 ENERGY CONSERVATION

1106.1 Minimum requirements.

Additions to *existing buildings* shall conform to the energy requirements of the *International Energy Conservation Code* or *International Residential Code* as they relate to new construction without requiring the unaltered portion of the existing building or building system to comply with the *North Carolina Energy Conservation Code*.

CHAPTER 12 HISTORIC BUILDINGS

SECTION 1201 GENERAL

1201.5 Ceiling height.

Existing ceiling heights shall be permitted to remain.

SECTION 1202 REPAIRS

1202.4.1 Wind-borne debris protection.

Replacement of window units shall require compliance with Section 1609.1.2 of the *North Carolina Building Code* or Section R609.6 of the *North Carolina Residential Code*.

Replacement of individual glass panes or sashes shall not require compliance with Section 1609.1.2 of the *North Carolina Building Code* or R609.6 of the *North Carolina Residential Code*.

SECTION 1203 FIRE SAFETY

1203.2 General.

Every *historic building* that does not conform to the construction requirements specified in this code for the occupancy or use and that constitutes a distinct fire hazard as identified by the

code official ~~defined herein~~ shall be provided with an approved automatic fire-extinguishing system as determined appropriate by the *code official*. However, an automatic fire-extinguishing system shall not be used to substitute for, or act as an alternative to, the required number of exits from any *facility*.

1203.12 Automatic fire-extinguishing systems. Deleted.

~~Every historical building that cannot be made to conform to the construction requirements specified in the *International Building Code* for the occupancy or use and that constitutes a distinct fire hazard shall be deemed to be in compliance if provided with an approved automatic fire-extinguishing system.~~

~~**Exception:** When the *code official* approves an alternative life safety system.~~

1203.13 Smoke and carbon monoxide alarms.

Smoke and carbon monoxide alarms shall be provided and installed in accordance with Section 804.4.

SECTION 1204 ALTERATIONS

1204.1 Accessibility requirements.

The provisions of Sections ~~705~~, 806 and 906, as applicable, shall apply to facilities designated as historic structures that undergo *alterations*, unless *technically infeasible*. Where compliance with the requirements for accessible routes, entrances or toilet rooms would threaten or destroy the historic significance of the building or *facility*, as determined by the *code official*, the alternative requirements of Sections 1204.1.1 through 1204.1.4 for that element shall be permitted.

Exception: Type B dwelling or sleeping units required by Section 1107 of the *International Building Code* are not required to be provided in historical buildings.

CHAPTER 13

RELOCATED OR MOVED BUILDINGS

SECTION 1301 GENERAL

1301.1 Scope.

This chapter provides requirements for relocated or moved structures, ~~including relocatable buildings as defined in Chapter 2.~~

1301.2 Conformance.

The building shall be safe for human occupancy as determined by the *International Fire Code* ~~and the *International Property Maintenance Code*~~. Any *repair, alteration, or change of occupancy* undertaken within the moved structure shall comply with the requirements of this code applicable to the work being performed. Any field-fabricated elements shall comply with the requirements of the *International Building Code* or the *International Residential Code* as applicable.

CHAPTER 14

PERFORMANCE COMPLIANCE METHODS

SECTION 1401 GENERAL

1401.2.2 Partial change in occupancy.

Where a portion of the building is changed to a new occupancy classification and that portion is separated from the remainder of the building with fire barrier or horizontal assemblies having a fire-resistance rating as required by Table 508.4 of the *International Building Code* or Section R~~317~~302 of the *International Residential Code* for the separate occupancies, or with approved compliance alternatives, the portion changed shall be made to conform to the provisions of this section.

Where a portion of the building is changed to a new occupancy classification and that portion is not separated from the remainder of the building with fire barriers or horizontal assemblies having a fire-resistance rating as required by Table 508.4 of the *International Building Code* or Section R~~317~~302 of the *International Residential Code* for the separate occupancies, or with approved compliance alternatives, the provisions of this section which apply to each occupancy shall apply to the entire building. Where there are conflicting provisions, those requirements which secure the greater public safety shall apply to the entire building or structure.

1401.2.5 Accessibility requirements.

Accessibility shall be provided in accordance with Section 410 or ~~705~~ 806.

1401.2.6 Occupant load increase.

Where the existing occupant load is increased by more than 20 percent or in Group A occupancies where the occupant load is greater than 300, compliance with Chapter 14 is not permitted. Compliance with other methods in this code shall be permitted.

1401.3.2 Compliance with other codes.

Buildings that are evaluated in accordance with this section shall comply with the *International Fire Code* ~~and *International Property Maintenance Code*~~.

CHAPTER 15 CONSTRUCTION SAFEGUARDS

SECTION 1507 AUTOMATIC SPRINKLER SYSTEM

[F] 1507.1 Completion before occupancy.

In portions of a building where an automatic sprinkler system is required by this code, it shall be unlawful to occupy those portions of the building until the automatic sprinkler system installation has been tested and approved, except as provided in ~~Section 110.3~~ North Carolina General Statutes 153A-363 and 160A-423.

CHAPTER 16 REFERENCED STANDARDS

This chapter lists the standards that are referenced in various sections of this document. The standards are listed herein by the promulgating agency of the standard, the standard identification, the effective date and title, and the section or sections of this document that reference the standard. The application of the referenced standards shall be as specified in Section 102.4.

ASCE/SEI American Society of Civil Engineers
Structural Engineering Institute
1801 Alexander Bell Drive
Reston, VA 20191-4400

Standard reference number	Title	Referenced in code section number
7—10	Minimum Design Loads for Buildings and Other Structures with Supplement No. 1.	301.1.4.1, 403.4, 403.9, 807.5
41—13	Seismic Evaluation and Retrofit of Existing Buildings	301.1.4, 301.1.4.1, Table 301.1.4.1 301.1.4.2, Table 301.1.4.2, 402.4, Table 402.4, 403.4,

404.2.1,
Table
404.2.1,
404.2.3,
407.4

ASHRAE American Society of Heating, Refrigerating and Air
Conditioning Engineers
1791 Tullie Circle, NE
Atlanta, GA 30329

Standard reference number	Title	Referenced in code section number
62.1—2013	Ventilation for Acceptable Indoor Air Quality	809.2

ASME American Society of Mechanical Engineers
3 Park Avenue
New York, NY 10016

Standard reference number	Title	Referenced in code section number
ASME A17.1/ CSA B44— 2013	Safety Code for Elevators and Escalators	410.8.2, 705.1.2 806.1.2, 902.1.2
A17.3—2008	Safety Code for Existing Elevators and Escalators	902.1.2
A18.1—2008	Safety Standard for Platform Lifts and Stairway Chair Lifts	410.8.3, 705.1.3 806.1.3

ASTM ASTM International
100 Barr Harbor Drive
West Conshohocken, PA 19428-2959

Standard reference number	Title	Referenced in code section number
C 94/C94M— 13	Specification for Ready-mixed Concrete	109.3.1
E 84—13A	Test Method for Surface Burning Characteristics of Building Materials	1205.9
E 108—11	Standard Test Methods for Fire Tests of Roof Coverings	1205.5
E 136—2012	Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C	202
F 2006—10	Standard Safety Specification for Window Fall Prevention Devices for Non Emergency Escape (Egress) and Rescue (Ingress) Windows	406.2, 702.4

F 2090—10

Standard Specification for Window Fall Prevention
Devices with Emergency (Egress)
Release Mechanisms

406.2, 702.4,
~~705.5~~

ICC

International Code Council, Inc.
500 New Jersey Avenue, NW, 6th Floor
Washington, DC 20001

Standard reference number	Title	Referenced in code section number
IBC—15	International Building Code®	<u>101.1</u> 101.4.1, <u>101.8</u> , 406.2.2 , 409.3.3 , 409.3.8 , 110.2 , 202, 301.1, 301.1.4, 301.1.4.1, 301.1.4.2 401.2.3, 402.1, 402.2, 402.3, 402.3.1, 402.4, <u>402.5</u> , <u>402.6</u> , 403.1, 403.2, 403.3, 403.3.1, 403.4, 403.4.1 , 403.8 , 403.9, <u>403.10</u> , <u>403.11</u> , <u>403.12</u> , 404.2.1, 404.2.3, 404.3, 404.4, 404.5, 406.3, 407.1, 407.3, 407.4, 408.3, 410.4, 410.4.2, 410.6, 410.8.1, 410.8.4, 410.8.6, 410.8.5, 410.8.7, 410.8.8, 410.8.10, 410.8.14 , 410.9, 410.9.3, 410.9.4,

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ICC A117.1— 09	Accessible and Usable Buildings and Facilities	410.8.2, 410.8.3, 410.8.10, 705.1.2, 705.1.3 <u>806.1.2,</u> <u>806.1.3,</u> <u>806.1.9</u>
ICC 300—12	ICC Standard on Bleachers, Folding and Telescopic Seating and Grandstands	401.1
IECC—15	International Energy Conservation Code [®]	301.2, 702.6, 708.1, 811.1, 908.1
IFC—15	International Fire Code [®]	101.4.2, 301.1.1, 301.2, 402.5, 403.10, <u>411.1.3,</u> <u>411.1.5,</u> 803.2.1, 803.2.3, <u>804.2.3,</u> 804.4.1.1, 804.4.1.2, 804.4.1.3, 804.4.1.4, 804.4.1.5, 804.4.1.6, 804.4.1.7, 804.4.3, 1012.5.1.1, 1104.1, 1301.2, 1401.3.2, 1401.6.8.1, 1401.6.14, 1401.6.14.1, 1501.5, 1504.1, 1504.2

IFGC—15	International Fuel Gas Code [®]	301.2, 702.6.1
IMC—15	International Mechanical Code [®]	301.2, 702.6, 809.1, 902.1.1, 902.2.1, 1009.1, 1401.6.7.1, 1401.6.8, 1401.6.8.1
IPC—15	International Plumbing Code [®]	301.2, 609.1, 702.6, 810.1, 1010.1, 1010.2, 1010.3, 1010.5, 1501.7
IPMC—15	International Property Maintenance Code[®]	101.4.2, 301.2, 1301.2, 1401.3.2
IRC—15	International Residential Code [®]	101.4.1, 301.2, 402.2, <u>402.5.1</u> , <u>402.6.1</u> , 403.2, <u>403.10.1</u> , <u>403.11.1</u> , <u>404.2</u> , <u>404.3.1</u> , 404.5, 408.3, 602.3, <u>602.4</u> , 701.3, 702.5, 706.2, 707.2, 707.4, 707.5, 708.1, <u>803.7</u> , <u>804.4.2.2</u> , <u>804.4.3</u> , 807.4, 808.3, 811.1, 907.4, 908.1, <u>1011.1</u> , <u>1012.8</u> , 1103.2, 1103.3, 1103.4, 1104.1, <u>1104.2</u> , 1106.1, 1201.4, <u>1202.4.1</u> , 1301.2, 1302.1, 1302.2, 1302.2.1, 1302.3, 1302.4, 1302.6, 1302.5, 1401.2.2, 1401.2.3, 1401.3.3

NFPA

National Fire Protection Agency
1 Batterymarch Park
Quincy, MA 02269-9101

Standard reference number	Title	Referenced in code section number
NFPA 13R—13	Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height .	804.2.5, <u>1012.2.1.3</u>
NFPA 70—14	National Electrical Code	107.3 , 301.2, 607.1.1, 607.1.2, 607.1.3, 607.1.4, 607.1.5, 808.1, 808.3.4, 808.3.7, 1008.1, 1008.2, 1008.3, 1008.4
NFPA 72—13	National Fire Alarm and Signaling Code	<u>402.5</u> , <u>403.10</u> , 804.2.5 , 804.4
NFPA 99—15	Health Care Facilities Code	607.1.4
NFPA 101—15	Life Safety Code	805.2

UL

UL LLC
333 Pfingsten Road
Northbrook, IL 60062

Standard reference number	Title	Referenced in code section number
723—08	Standard for Test for Surface Burning Characteristics of Building Materials with Revisions Through September 2010	1205.9
790—04	Standard Test Methods for Fire Tests of Roof Coverings with Revisions through October 2008	1205.5

Appendix A: Guidelines for the Seismic Retrofit of Existing Buildings

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

APPENDIX B SUPPLEMENTARY ACCESSIBILITY REQUIREMENTS FOR EXISTING BUILDINGS AND FACILITIES

The provisions contained in this appendix are adopted as part of this code.
~~*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*~~

APPENDIX C: Guidelines for the Wind Retrofit of Existing Buildings

(Deleted)

RESOURCE A

**RECOMMENDED GUIDELINES ON FIRE RATINGS OF
ARCHAIC MATERIALS AND ASSEMBLIES**