

§ 143-138. North Carolina State Building Code.

(a) Preparation and Adoption. – The Building Code Council may prepare and adopt, in accordance with the provisions of this Article, a North Carolina State Building Code. Before the adoption of the Code, or any part of the Code, the Council shall hold at least one public hearing. A notice of the public hearing shall be published in the North Carolina Register at least 15 days before the date of the hearing. Notwithstanding G.S. 150B-2(8a)h., the North Carolina State Building Code as adopted by the Building Code Council is a rule within the meaning of G.S. 150B-2(8a) and shall be adopted in accordance with the procedural requirements of Article 2A of Chapter 150B of the General Statutes.

(a1) Additional Adoption Requirements. –

- (1) The Council shall request the Office of State Budget and Management to prepare a fiscal note for a proposed Code change that has a substantial economic impact, as defined in G.S. 150B-21.4(b1), or that increases the cost of residential housing by eighty dollars (\$80.00) or more per housing unit. The change can become effective only in accordance with G.S. 143-138(d). Neither the Department of Insurance nor the Council shall be required to expend any monies to pay for the preparation of any fiscal note under this section by any person outside of the Department or Council unless the Department or Council contracts with a third-party vendor to prepare the fiscal note.
- (2) The Council shall conduct a cost-benefit analysis for all proposed changes considered after January 1, 2018, to the North Carolina Energy Conservation Code.

(b) Contents of the Code. – The North Carolina State Building Code, as adopted by the Building Code Council, may include reasonable and suitable classifications of buildings and structures, both as to use and occupancy; general building restrictions as to location, height, and floor areas; rules for the lighting and ventilation of buildings and structures; requirements concerning means of egress from buildings and structures; requirements concerning means of ingress in buildings and structures; rules governing construction and precautions to be taken during construction; rules as to permissible materials, loads, and stresses; rules governing chimneys, heating appliances, elevators, and other facilities connected with the buildings and structures; rules governing plumbing, heating, air conditioning for the purpose of comfort cooling by the lowering of temperature, and electrical systems; and such other reasonable rules pertaining to the construction of buildings and structures and the installation of particular facilities therein as may be found reasonably necessary for the protection of the occupants of the building or structure, its neighbors, and members of the public at large.

(b1) Fire Protection; Smoke Detectors. – The Code may regulate activities and conditions in buildings, structures, and premises that pose dangers of fire, explosion, or related hazards. Such fire prevention code provisions shall be considered the minimum standards necessary to preserve and protect public health and safety, subject to approval by the Council of more stringent provisions proposed by a municipality or county as provided in G.S. 143-138(e). These provisions may include regulations requiring the installation of either battery-operated or electrical smoke detectors in every dwelling unit used as rental property, regardless of the date of construction of the rental property. For dwelling units used as rental property constructed prior to 1975, smoke detectors shall have an Underwriters' Laboratories, Inc., listing or other equivalent national testing laboratory approval, and shall be installed in accordance with either the standard of the National Fire Protection Association or the minimum protection designated in the manufacturer's instructions, which the property owner shall retain or provide as proof of compliance.

(b2) Carbon Monoxide Alarms. – The Code (i) may contain provisions requiring the installation of either battery-operated or electrical carbon monoxide alarms in every dwelling unit having a combustion heater, appliance, or fireplace, and in any dwelling unit having an attached garage and (ii) shall contain provisions requiring the installation of electrical carbon monoxide alarms at a lodging establishment. Violations of this subsection and rules adopted pursuant to this subsection shall be punishable in accordance with subsection (h) of this section and G.S. 143-139. In particular, the rules shall provide:

- (1) For dwelling units, carbon monoxide alarms shall be those listed by a nationally recognized testing laboratory that is approved to test and certify to American National Standards Institute/Underwriters Laboratories Standards ANSI/UL2034 or ANSI/UL2075 and shall be installed in accordance with either the standard of the National Fire Protection Association or the minimum protection designated in the manufacturer's instructions, which the property owner shall retain or provide as proof of compliance. A carbon monoxide alarm may be combined with smoke detectors if the combined alarm does both of the following: (i) complies with ANSI/UL2034 or ANSI/UL2075 for carbon monoxide alarms and ANSI/UL217 for smoke detectors; and (ii) emits an alarm in a manner that clearly differentiates between detecting the presence of carbon monoxide and the presence of smoke.
- (2) For lodging establishments, including tourist homes that provide accommodations for seven or more continuous days (extended-stay establishments), and bed and breakfast inns and bed and breakfast homes as defined in G.S. 130A-247, carbon monoxide alarms shall be installed in every dwelling unit or sleeping unit having a combustion heater, appliance, or fireplace and in every dwelling unit or sleeping unit that shares a common wall, floor, or ceiling with a room having a combustion heater, appliance, or fireplace. Carbon monoxide alarms shall be (i) listed by a nationally recognized testing laboratory that is approved to test and certify to American National Standards Institute/Underwriters Laboratories (ANSI/UL) Standards ANSI/UL2034 or ANSI/UL2075, (ii) installed in accordance with either the standard of the National Fire Protection Association (NFPA) or the minimum protection designated in the manufacturer's instructions, which the lodging establishment shall retain or provide as proof of compliance, (iii) receive primary power from the building's wiring, where such wiring is served from a commercial source, and (iv) receive power from a battery when primary power is interrupted. A carbon monoxide alarm may be combined with smoke detectors if the combined alarm complies with the requirements of this subdivision for carbon monoxide alarms and ANSI/UL217 for smoke alarms. In lieu of the carbon monoxide alarms required by this subsection, a carbon monoxide detection system, which includes carbon monoxide detectors and audible notification appliances installed and maintained in accordance with NFPA 720, shall be permitted. The carbon monoxide detectors shall be listed as complying with ANSI/UL2075. For purposes of this subsection, "lodging establishment" means any hotel, motel, tourist home, or other establishment permitted under authority of G.S. 130A-248 to provide lodging accommodations for pay to the public, and "combustion heater, appliance, or fireplace" means any heater, appliance, or fireplace that burns combustion fuels, including, but not limited to, natural or liquefied petroleum gas, fuel oil, kerosene, wood, or coal for heating, cooking, drying, or decorative purposes, including, but not limited to, space heaters, wall and ceiling heaters, ranges,

ovens, stoves, furnaces, fireplaces, water heaters, and clothes dryers. For purposes of this subsection, candles and canned fuels are not considered to be combustion appliances.

- (3) The Building Code Council shall modify the NC State Building Code (Fire Prevention) to regulate the provisions of this subsection in new and existing lodging establishments, including hotels, motels, tourist homes that provide accommodations for seven or more continuous days (extended-stay establishments), and bed and breakfast inns and bed and breakfast homes as defined in G.S. 130A-247; provided nothing in this subsection shall prevent the Building Code Council from establishing more stringent rules regulating carbon monoxide alarms or detectors for new lodging establishments, including hotels, motels, tourist homes that provide accommodations for seven or more continuous days (extended-stay establishments), and bed and breakfast inns and bed and breakfast homes as defined in G.S. 130A-247. The Building Code Council shall modify the NC State Building Code (Fire Prevention) minimum inspection schedule to include annual inspections of new and existing lodging establishments, including hotels, motels, and tourist homes that provide accommodations for seven or more continuous days (extended-stay establishments), and bed and breakfast inns and bed and breakfast homes as defined in G.S. 130A-247 for the purpose of compliance with this subsection.
- (4) Upon discovery of a violation of this subsection that poses an imminent hazard and that is not corrected during an inspection of a lodging establishment subject to the provisions of G.S. 130A-248, the code official responsible for enforcing the NC State Building Code (Fire Prevention) shall immediately notify the local health director for the county in which the violation was discovered, or the local health director's designee, by verbal contact and shall also submit a written report documenting the violation of this subsection to the local health director for the county in which the violation was discovered, or the local health director's designee, on the next working day following the discovery of the violation. Within one working day of receipt of the written report documenting a violation of this subsection, the local health director for the county in which the violation was discovered, or the local health director's designee, shall investigate and take appropriate action regarding the permit for the lodging establishment, as provided in G.S. 130A-248. Lodging establishments having five or more rooms that are exempted from the requirements of G.S. 130A-248 by G.S. 130A-250 shall be subject to the penalties set forth in the NC State Building Code (Fire Prevention).
- (5) Upon discovery of a violation of this subsection that does not pose an imminent hazard and that is not corrected during an inspection of a lodging establishment subject to the provisions of G.S. 130A-248, the owner or operator of the lodging establishment shall have a correction period of three working days following the discovery of the violation to notify the code official responsible for enforcing the NC State Building Code (Fire Prevention) verbally or in writing that the violation has been corrected. If the code official receives such notification, the code official may reinspect the portions of the lodging establishment that contained violations, but any fees for reinspection shall not exceed the fee charged for the initial inspection. If the code official receives no such notification, or if a reinspection discovers that previous violations were not corrected, the code official shall submit a

written report documenting the violation of this subsection to the local health director for the county in which the violation was discovered, or the local health director's designee, within three working days following the termination of the correction period or the reinspection, whichever is later. The local health director shall investigate and may take appropriate action regarding the permit for the lodging establishment, as provided in G.S. 130A-248. Lodging establishments having five or more rooms that are exempted from the requirements of G.S. 130A-248 by G.S. 130A-250 shall be subject to the penalties set forth in the NC State Building Code (Fire Prevention).

- (6) The requirements of subdivisions (2) through (5) of this subsection shall not apply to properties subject to the provisions of either G.S. 42-42 or G.S. 42A-31.

(b3) Applicability of the Code. – Except as provided by subsections (b4) and (c1) of this section, the Code may contain provisions regulating every type of building or structure, wherever it might be situated in the State.

(b4) Exclusion for Certain Farm Buildings. – Building rules do not apply to (i) farm buildings that are located outside the building-rules jurisdiction of any municipality, (ii) farm buildings that are located inside the building-rules jurisdiction of any municipality if the farm buildings are greenhouses or therapeutic equine facilities, (iii) a primitive camp, or (iv) a primitive farm building. For the purposes of this subsection:

- (1) A "farm building" means any nonresidential building or structure that is used for a bona fide farm purpose as provided in G.S. 160D-903(a). A "farm building" shall include:
- a. Any structure used or associated with equine activities, including, but not limited to, the care, management, boarding, or training of horses and the instruction and training of riders. Structures that are associated with equine activities include, but are not limited to, free standing or attached sheds, barns, or other structures that are utilized to store any equipment, tools, commodities, or other items that are maintained or used in conjunction with equine activities. The specific types of equine activities, structures, and uses set forth in this subdivision are for illustrative purposes, and should not be construed to limit, in any manner, the types of activities, structures, or uses that may be considered under this subsection as exempted from building rules. A farm building that might otherwise qualify for exemption from building rules shall remain subject only to an annual safety inspection by the applicable city or county building inspection department of any grandstand, bleachers, or other spectator-seating structures in the farm building. An annual safety inspection shall include an evaluation of the overall safety of spectator-seating structures as well as ensuring the spectator-seating structure's compliance with any building codes related to the construction of spectator-seating structures in effect at the time of the construction of the spectator-seating.
 - b. Any structure used for the display and sale of produce, no more than 1,000 square feet in size, open to the public for no more than 180 days per year, and certified by the Department of Agriculture and Consumer Services as a Certified Roadside Farm Market.
 - c. Any unoccupied structure built upon land owned by the State of North Carolina and administratively allocated to the North Carolina

Department of Agriculture and Consumer Services or North Carolina State University which is used primarily for forestry production and research or agriculture production and research. The term "agriculture" has the same meaning as in G.S. 106-581.1. The term "unoccupied" does not exclude the keeping of livestock.

- d. A building used primarily for the storage of agricultural commodities or products or storage and use of materials for agricultural purposes, whether or not the building is located on the same property where the agricultural commodities or products were produced, provided the building is surrounded and adjoined by public ways and yards, as those terms are defined in the 2018 North Carolina Building Code, of not less than 60 feet in width. The owner of a qualifying building under this sub-subdivision shall post a placard on the front of the building. The placard shall be not less than 24 inches by 24 inches in size with a red background, white reflective stripes, and a white reflective border. The placard shall display the words "Ag. Exempt" in white reflective letters not less than 12 inches tall.
- (1a) A "farm building" shall not lose its status as a farm building because it is used for public or private events, including, but not limited to, weddings, receptions, meetings, demonstrations of farm activities, meals, and other events that are taking place on the farm because of its farm or rural setting.
- (2) A "greenhouse" is a structure that has a glass or plastic roof, has one or more glass or plastic walls, has an area over ninety-five percent (95%) of which is used to grow or cultivate plants, is built in accordance with the National Greenhouse Manufacturers Association Structural Design manual, and is not used for retail sales. Additional provisions addressing distinct life safety hazards shall be approved by the local building-rules jurisdiction.
- (2a) A "therapeutic equine facility" is an equine facility as described in sub-subdivision (1)a. of this subsection operated by an organization exempt from federal income tax under section 501(c)(3) of the Internal Revenue Code that provides therapeutic equine-related activities for persons who are physically, intellectually, or emotionally challenged.
- (3) Repealed by Session Laws 2015-263, s. 34, effective September 30, 2015.
- (4) A "primitive camp" shall include any structure primarily used or associated with outdoor camping activities, including structures used for educational, instructional, or recreational purposes for campers and for management training, that are (i) not greater than 4,000 square feet in size and (ii) are not intended to be occupied for more than 24 hours consecutively. "Structures primarily used or associated with outdoor camping activities" include, but are not limited to, shelters, tree stands, outhouses, sheds, rustic cabins, campfire shelters, picnic shelters, tents, tepees or other indigenous huts, support buildings used only for administrative functions and not for activities involving campers or program participants, and any other structures that are utilized to store any equipment, tools, commodities, or other items that are maintained or used in conjunction with outdoor camping activities such as hiking, fishing, hunting, or nature appreciation, regardless of material used for construction. The specific types of primitive camping activities, structures, and uses set forth in this subdivision are for illustrative purposes and should not be construed to limit, in any manner, the types of activities, structures, or uses that are exempted from building rules.

- (5) A "primitive farm building" shall include any structure used for activities, instruction, training, or reenactment of traditional or heritage farming practices. "Primitive farm buildings" include, but are not limited to, sheds, barns, outhouses, doghouses, or other structures that are utilized to store any equipment, tools, commodities, livestock, or other items supporting farm management. These specific types of farming activities, structures, and uses set forth by this subdivision are for illustrative purposes and should not be construed to limit in any manner the types of activities, structures, or uses that are exempted from building rules.

(6) Repealed by Session Laws 2015-263, s. 34, effective September 30, 2015.

(b5) Permit Exclusion for Certain Minor Activities. – No permit shall be required under the Code or any local variance thereof approved under subsection (e) for any construction, installation, repair, replacement, or alteration performed in accordance with the current edition of the North Carolina State Building Code and costing twenty thousand dollars (\$20,000) or less in any single family residence, farm building, or commercial building unless the work involves any of the following:

- (1) The addition, repair, or replacement of load bearing structures. However, no permit is required for replacements of windows, doors, exterior siding, or the pickets, railings, stair treads, and decking of porches and exterior decks that otherwise meet the requirements of this subsection.
- (2) The addition or change in the design of plumbing. However, no permit is required for replacements otherwise meeting the requirements of this subsection that do not change size or capacity.
- (3) The addition, replacement or change in the design of heating, air conditioning, or electrical wiring, appliances, or equipment, other than a like-kind replacement of electrical devices and lighting fixtures.
- (4) The use of materials not permitted by the North Carolina State Building Code.
- (5) The addition (excluding replacement) of roofing.
- (6) Any changes to which the North Carolina Fire Prevention Code applies.

(b6) No State Agency Permit. – No permit shall be required under the Code from any State agency for the construction of any building or structure, the total cost of which is less than twenty thousand dollars (\$20,000), except public or institutional buildings.

(b7) Appendices. – For the information of users thereof, the Code shall include as appendices the following:

- (1) Any rules governing boilers adopted by the Board of Boiler and Pressure Vessels Rules,
- (2) Any rules relating to the safe operation of elevators adopted by the Commissioner of Labor, and
- (3) Any rules relating to sanitation adopted by the Commission for Public Health which the Building Code Council believes pertinent.

The Code may include references to such other rules of special types, such as those of the Medical Care Commission and the Department of Public Instruction as may be useful to persons using the Code. No rule issued by any agency other than the Building Code Council shall be construed as a part of the Code, nor supersede that Code, it being intended that they be presented with the Code for information only.

(b8) Exclusion for Certain Utilities. – Nothing in this Article shall extend to or be construed as being applicable to the regulation of the design, construction, location, installation, or operation of (1) equipment for storing, handling, transporting, and utilizing liquefied petroleum gases for fuel purposes or anhydrous ammonia or other liquid fertilizers, except for liquefied petroleum gas from the outlet of the first stage pressure regulator to and including each

liquefied petroleum gas utilization device within a building or structure covered by the Code, or (2) equipment or facilities, other than buildings, of a public utility, as defined in G.S. 62-3, a cable television company, or an electric or telephone membership corporation, including without limitation poles, towers, and other structures supporting electric, cable television, or communication lines.

(b9) Exclusion for Industrial Machinery. – Nothing in this Article shall extend to or be construed as being applicable to the regulation of the design, construction, location, installation, or operation of industrial machinery. However, if during the building code inspection process, an electrical inspector has any concerns about the electrical safety of a piece of industrial machinery, the electrical inspector may refer that concern to the Occupational Safety and Health Division in the North Carolina Department of Labor but shall not withhold the certificate of occupancy nor mandate third-party testing of the industrial machinery based solely on this concern. For the purposes of this paragraph, "industrial machinery" means equipment and machinery used in a system of operations for the explicit purpose of producing a product or acquired by a State-supported center providing testing, research, and development services to manufacturing clients. The term does not include equipment that is permanently attached to or a component part of a building and related to general building services such as ventilation, heating and cooling, plumbing, fire suppression or prevention, and general electrical transmission.

(b10) Replacement Water Heaters. –

- (1) Exclusion. – No permit shall be required under the Code or any local variant approved under subsection (e) of this section for replacement of water heaters in one- or two-family dwellings, provided (i) the energy use rate or thermal input is not greater than that of the water heater which is being replaced, and there is no change in fuel, energy source, location, or routing or sizing of venting and piping, (ii) the work is performed by a person or employee of a company licensed under G.S. 87-21 or pursuant to G.S. 87-21(i), and (iii) the replacement is installed in accordance with the current edition of the North Carolina State Building Code.
- (2) Energy efficiency. – The Code may contain rules concerning minimum efficiency requirements for replacement water heaters, which shall consider reasonable availability from manufacturers to meet installation space requirements and may contain rules concerning energy efficiency that require all hot water plumbing pipes that are larger than one-fourth of an inch to be insulated.

(b11) School Seclusion Rooms. – No State, county, or local building code or regulation shall prohibit the use of special locking mechanisms for seclusion rooms in the public schools approved under G.S. 115C-391.1(e)(1)e., provided that the special locking mechanism shall be constructed so that it will engage only when a key, knob, handle, button, or other similar device is being held in position by a person, and provided further that, if the mechanism is electrically or electronically controlled, it automatically disengages when the building's fire alarm is activated. Upon release of the locking mechanism by a supervising adult, the door must be able to be opened readily.

(b12) Cisterns. – The Code may include rules pertaining to the construction or renovation of residential or commercial buildings and structures that permit the use of cisterns to provide water for flushing toilets and for outdoor irrigation. No State, county, or local building code or regulation shall prohibit the use of cisterns to provide water for flushing toilets and for outdoor irrigation. As used in this subsection, "cistern" means a storage tank that is watertight; has smooth interior surfaces and enclosed lids; is fabricated from nonreactive materials such as reinforced concrete, galvanized steel, or plastic; is designed to collect rainfall from a catchment area; may

be installed indoors or outdoors; and is located underground, at ground level, or on elevated stands.

(b13) Migrant Housing. – The Council shall provide for an exemption from any requirements in the fire prevention code for installation of an automatic sprinkler system applicable to buildings meeting all of the following:

- (1) Has one floor.
- (2) Meets all requirements of 29 C.F.R. § 1910.142, as amended.
- (3) Meets all requirements of Article 19 of Chapter 95 of the General Statutes and rules implementing that Article.

For purposes of this subsection, "migrant housing" and "migrant" shall be defined as in G.S. 95-223.

(b14) Exclusion for Routine Maintenance of Pumps and Dispensers. – No permit shall be required under the Code or any local variant approved under subsection (e) of this section for routine maintenance on fuel dispensing pumps and other dispensing devices. For purposes of this subsection, "routine maintenance" includes repair or replacement of hoses, O-rings, nozzles, or emergency breakaways.

(b15) Exclusion from Energy Code Requirements for Existing Commercial Buildings. – The alteration of commercial buildings and structures that received a certificate of occupancy prior to January 1, 2012, may be subject to the rules pertaining to energy efficiency and energy conservation that were in effect on December 31, 2011. The addition to commercial buildings and structures that received a certificate of occupancy prior to January 1, 2012, may be subject to the rules pertaining to energy efficiency and energy conservation that were in effect on December 31, 2011, so long as the addition does not increase the building area of the existing commercial building or structure to more than one hundred fifty percent (150%) of the building area of the commercial building or structure as it was in existence on December 31, 2011. For the purpose of this subsection, the term "commercial buildings and structures" shall include all structures and buildings that are not classified as a Group R occupancy by the Building Code Council.

(b16) Exclusion for Electrical Devices and Lighting Fixtures. – No permit shall be required under the Code or any local variant approved under subsection (e) of this section for the repair or replacement of dishwashers, disposals, water heaters, electrical devices, or lighting fixtures in residential or commercial structures, provided that all of the following apply:

- (1) The repair or replacement does not require the addition or relocation of electrical wiring.
- (2) The work is performed by a person or employee of a company licensed under G.S. 87-43.
- (3) The repair or replacement is performed in accordance with the current edition of the North Carolina State Building Code.

(b17) Exclusion for Private Drinking Water Well Installation, Construction, Maintenance, and Repair. – No permit shall be required under the Code or any local variant approved under subsection (e) of this section for the electrical and plumbing activities associated with the installation, construction, maintenance, or repair of a private drinking water well when all of the following apply:

- (1) The work is performed by a contractor certified under Article 7A of Chapter 87 of the General Statutes under the terms of a permit issued by the local health department pursuant to G.S. 87-97.
- (2) The scope of work includes only the connection or disconnection of a well system to either the plumbing served by the well system or the electrical service that serves the well system. For purposes of this subsection, a well system includes the well, the pressure tank, the pressure switch, and all

plumbing and electrical equipment in the well and between the well, pressure tank, and pressure switch.

(b18) Exclusion From Energy Efficiency Code Requirements for Certain Use and Occupancy Classifications. – The Council shall provide for an exemption from any requirements in the energy efficiency standards pursuant to Chapter 13 of the 2012 North Carolina Building Code and the 2012 Energy Conservation Code, and any subsequent amendments to the Building Code and Energy Conservation Code, for the following use and occupancy classifications pursuant to Chapter 3 of the 2012 North Carolina Building Code: Section 306, Factory Group F; Section 311, Storage Group S; and Section 312, Utility and Miscellaneous Group U. This exclusion shall apply to the entire floor area of any structure for which the primary use or occupancy is listed herein.

(b19) Exclusion From Energy Efficiency Code Requirements for Residential Garages. – The Council shall provide for an exemption for detached and attached garages located on the same lot as a dwelling from any requirements in the energy efficiency standards pursuant to Chapter 11 of the North Carolina Residential Code for One- and Two-Family Dwellings and Chapter 4 of the North Carolina Energy Conservation Code.

(b20) Exclusion for Temporary Motion Picture, Television, and Theater Stage Sets and Scenery. – No permit shall be required under the North Carolina State Building Code or any local variant approved under subsection (e) of this section for any construction, installation, repair, replacement, or alteration of temporary motion picture, television, and theater stage sets and scenery that are being used for less than one year in one location and are inspected by the assigned fire code inspector. The Building Code Council shall create a fire code inspection checklist that shall be used for inspections under this subsection.

(b21) Exclusion for Certain Minor Activities in Commercial Buildings and Structures. – No permit shall be required under the Code or any local variance thereof approved under subsection (e) of this section for any construction, installation, repair, replacement, or alteration performed in accordance with the current edition of the North Carolina State Building Code costing twenty thousand dollars (\$20,000) or less in any commercial building or structure unless the work involves any of the activities described in subdivisions (1) through (6) of subsection (b5) of this section. For the purpose of determining applicability of permit exclusions for a commercial building or structure under this subsection, subsection (b5) of this section, and G.S. 160D-1110(c), cost is the total cost of work, including all building addition, demolition, alteration, and repair work, occurring on the property within 12 consecutive months.

(b22) (Expires December 31, 2024 – see note) Limit Requirement for Certain Plans to be Under Professional Seal. – The North Carolina State Building Code shall not require that plans and specifications for any alteration, remodeling, renovation, or repair of a commercial building or structure be prepared by and under the seal of a registered architect licensed under Chapter 83A of the General Statutes, or a registered engineer licensed under Chapter 89C of the General Statutes, if the alteration, remodeling, renovation, or repair costs less than three hundred thousand dollars (\$300,000) or if the total building area does not exceed 3,000 square feet in gross floor area and all of the following apply:

- (1) The alteration, remodeling, renovation, or repair does not include the addition, repair, or replacement of load-bearing structures.
- (2) The alteration, remodeling, renovation, or repair is not subject to the requirements of G.S. 133-1.1(a).
- (3) The alteration, remodeling, renovation, or repair is performed in accordance with the current edition of the North Carolina Fire Prevention Code.

(c) Standards to Be Followed in Adopting the Code. – All regulations contained in the North Carolina State Building Code shall have a reasonable and substantial connection with the public health, safety, morals, or general welfare, and their provisions shall be construed

reasonably to those ends. Requirements of the Code shall conform to good engineering practice. The Council may use as guidance, but is not required to adopt, the requirements of the International Building Code of the International Code Council, the Standard Building Code of the Southern Building Code Congress International, Inc., the Uniform Building Code of the International Conference of Building Officials, the National Building Code of the Building Officials and Code Administrators, Inc., the National Electric Code, the Life Safety Code, the National Fuel Gas Code, the Fire Prevention Code of the National Fire Protection Association, the Safety Code for Elevators and Escalators, and the Boiler and Pressure Vessel Code of the American Society of Mechanical Engineers, and standards promulgated by the American National Standards Institute, Standards Underwriters' Laboratories, Inc., and similar national or international agencies engaged in research concerning strength of materials, safe design, and other factors bearing upon health and safety.

(c1) Exemptions for Private Clubs and Religious Organizations. – The North Carolina State Building Code and the standards for the installation and maintenance of limited-use or limited-access hydraulic elevators under this Article shall not apply to private clubs or establishments exempted from coverage under Title II of the Civil Rights Act of 1964, 42 U.S.C. § 2000a, et seq., or to religious organizations or entities controlled by religious organizations, including places of worship. A nonreligious organization or entity that leases space from a religious organization or entity is not exempt under this subsection.

(d) Amendments of the Code. – Subject to the procedures set forth in G.S. 143-136(c) and (d), the Building Code Council may periodically revise and amend the North Carolina State Building Code, either on its own motion or upon application from any citizen, State agency, or political subdivision of the State. In addition to the periodic revisions or amendments made by the Council, the Council shall, following the procedure set forth in G.S. 143-136(c), revise the North Carolina State Building Code: Residential Code for One- and Two-Family Dwellings, including provisions applicable to One- and Two-Family Dwellings from the NC Energy Code, NC Electrical Code, NC Fuel Gas Code, NC Plumbing Code, and NC Mechanical Code only every six years, to become effective the first day of January of the following year, with at least six months between adoption and effective date. The first six-year revision under this subsection shall be adopted to become effective January 1, 2019, and every six years thereafter. In adopting any amendment, the Council shall comply with the same procedural requirements and the same standards set forth above for adoption of the Code. The Council, through the Department of Insurance, shall publish in the North Carolina Register all appeal decisions made by the Council and all formal opinions at least semiannually. The Council, through the Department of Insurance, shall also publish at least semiannually in the North Carolina Register a statement providing the accurate Web site address and information on how to find additional commentary and interpretation of the Code.

(d1) Cost-Benefit Analysis. – When the Building Code Council revises or amends the North Carolina State Building Code as provided in subsection (d) of this section and considers an economic analysis or cost-benefit analysis of the proposed revision or amendment, the Council shall not limit its review to an economic analysis or cost-benefit analysis submitted by the proponent of the proposed revision or amendment but shall either conduct its own economic analysis or cost-benefit analysis or consider an economic analysis or cost-benefit analysis submitted other than by the proponent of the proposed revision or amendment. This section shall not apply to a proposal for revision or amendment made upon motion of the Council or submitted by a State agency or political subdivision of the State.

(e) Effect upon Local Codes. – Except as otherwise provided in this section, the North Carolina State Building Code shall apply throughout the State, from the time of its adoption. Approved rules shall become effective in accordance with G.S. 150B-21.3. However, any political subdivision of the State may adopt a fire prevention code and floodplain management

regulations within its jurisdiction. The territorial jurisdiction of any municipality or county for this purpose, unless otherwise specified by the General Assembly, shall be as follows: Municipal jurisdiction shall include all areas within the corporate limits of the municipality and extraterritorial jurisdiction areas established as provided in G.S. 160D-202 or a local act; county jurisdiction shall include all other areas of the county. No such code or regulations, other than floodplain management regulations and those permitted by G.S. 160D-1128, shall be effective until they have been officially approved by the Building Code Council as providing adequate minimum standards to preserve and protect health and safety, in accordance with the provisions of subsection (c) above. Local floodplain regulations may regulate all types and uses of buildings or structures located in flood hazard areas identified by local, State, and federal agencies, and include provisions governing substantial improvements, substantial damage, cumulative substantial improvements, lowest floor elevation, protection of mechanical and electrical systems, foundation construction, anchorage, acceptable flood resistant materials, and other measures the political subdivision deems necessary considering the characteristics of its flood hazards and vulnerability. In the absence of approval by the Building Code Council, or in the event that approval is withdrawn, local fire prevention codes and regulations shall have no force and effect. Provided any local regulations approved by the local governing body which are found by the Council to be more stringent than the adopted statewide fire prevention code and which are found to regulate only activities and conditions in buildings, structures, and premises that pose dangers of fire, explosion or related hazards, and are not matters in conflict with the State Building Code, may be approved. Local governments may enforce the fire prevention code of the State Building Code using civil remedies authorized under G.S. 143-139, 153A-123, and 160A-175. If the Commissioner of Insurance or other State official with responsibility for enforcement of the Code institutes a civil action pursuant to G.S. 143-139, a local government may not institute a civil action under G.S. 143-139, 153A-123, or 160A-175 based upon the same violation. Appeals from the assessment or imposition of such civil remedies shall be as provided in G.S. 160D-1127.

A local government may not adopt any ordinance in conflict with the exemption provided by subsection (c1) of this section. No local ordinance or regulation shall be construed to limit the exemption provided by subsection (c1) of this section.

(f) Repealed by Session Laws 1989, c. 681, s. 3.

(g) Publication and Distribution of Code. – The Building Code Council shall cause to be printed, after adoption by the Council, the North Carolina State Building Code and each amendment thereto. It shall, at the State's expense, distribute copies of the Code and each amendment to State and local governmental officials, departments, agencies, and educational institutions, as is set out in the table below. (Those marked by an asterisk will receive copies only on written request to the Council.)

OFFICIAL OR AGENCY	NUMBER OF COPIES
State Departments and Officials	
Governor	1
Lieutenant Governor	1
Auditor	1
Treasurer	1
Secretary of State	1
Superintendent of Public Instruction.....	1
Attorney General (Library)	1
Commissioner of Agriculture.....	1
Commissioner of Labor.....	1
Commissioner of Insurance	1
Department of Environmental	

Quality.....	1
Department of Health and Human Service	1
Division of Adult Correction and Juvenile Justice of the Department of Public Safety	1
Board of Transportation	1
Utilities Commission.....	1
Department of Administration	1
Clerk of the Supreme Court	1
Clerk of the Court of Appeals	1
Department of Natural and Cultural Resources [State Library]	1
Supreme Court Library	1
Legislative Library	1
Office of Administrative Hearings.....	1
Rules Review Commission	1
Schools	
All state-supported colleges and universities in the State of North Carolina	*1 each
Local Officials	
Clerks of the Superior Courts.....	1 each
Chief Building Inspector of each incorporated municipality or county	1

In addition, the Building Code Council shall make additional copies available at such price as it shall deem reasonable to members of the general public. The proceeds from sales of the Building Code shall be credited to the Insurance Regulatory Fund under G.S. 58-6-25.

(h) Violations. – Any person who shall be adjudged to have violated this Article or the North Carolina State Building Code, except for violations of occupancy limits established by either, shall be guilty of a Class 3 misdemeanor and shall upon conviction only be liable to a fine, not to exceed fifty dollars (\$50.00), for each offense. Each 30 days that such violation continues shall constitute a separate and distinct offense. Violation of occupancy limits established pursuant to the North Carolina State Building Code shall be a Class 3 misdemeanor. Any violation incurred more than one year after another conviction for violation of the occupancy limits shall be treated as a first offense for purposes of establishing and imposing penalties.

(i) Section 1008 of Chapter X of Volume 1 of the North Carolina State Building Code, Title "Special Safety to Life Requirements Applicable to Existing High-Rise Buildings" as adopted by the North Carolina State Building Code Council on March 9, 1976, as ratified and adopted as follows:

**SECTION 1008-SPECIAL SAFETY TO LIFE REQUIREMENTS APPLICABLE TO
EXISTING HIGH-RISE BUILDINGS**

1008 – GENERAL.

(a) *Applicability.* – Within a reasonable time, as fixed by "written order" of the building official, and except as otherwise provided in subsection (j) of this section every building the [then] existing, that qualifies for classification under Table 1008.1 shall be considered to be a high-rise building and shall be provided with safety to life facilities as hereinafter specified. All other buildings shall be considered as low-rise. NOTE: The requirements of Section 1008 shall be considered as minimum requirements to provide for reasonable safety to life requirements for existing buildings and where possible, the owner and designer should consider the provisions of Section 506 applicable to new high-rise buildings.

(b) *Notification of Building Owner.* – The Department of Insurance will send copies of amendments adopted to all local building officials with the suggestion that all local building

officials transmit to applicable building owners in their jurisdiction copies of adopted amendments, within six months from the date the amendments are adopted, with the request that each building owner respond to the local building official how he plans to comply with these requirements within a reasonable time.

NOTE: Suggested reasonable time and procedures for owners to respond to the building official's request is as follows:

- (1) The building owner shall, upon receipt of written request from the building official on compliance procedures within a reasonable time, submit an overall plan required by 1008(c) below within one year and within the time period specified in the approved overall plan, but not to exceed five years after the overall plan is approved, accomplish compliance with this section, as evidenced by completion of the work in accordance with approved working drawings and specifications and by issuance of a new Certificate of Compliance by the building official covering the work. Upon approval of building owner's overall plan, the building official shall issue a "written order", as per 1008(a) above, to comply with Section 1008 in accordance with the approved overall plan.
- (2) The building official may permit time extensions beyond five years to accomplish compliance in accordance with the overall plan when the owner can show just cause for such extension of time at the time the overall plan is approved.
- (3) The local building official shall send second request notices as per 1008(b) to building owners who have made no response to the request at the end of six months and a third request notice to no response building owners at the end of nine months.
- (4) If the building owner makes no response to any of the three requests for information on how the owner plans to comply with Section 1008 within 12 months from the first request, the building official shall issue a "written order" to the building owner to provide his building with the safety to life facilities as required by this section and to submit an overall plan specified by (1) above within six months with the five-year time period starting on the date of the "written order".
- (5) For purposes of this section, the Construction Section of the Division of Health Service Regulation, Department of Health and Human Services, will notify all non-State owned I-Institutional buildings requiring licensure by the Division of Health Service Regulation and coordinate compliance requirements with the Department of Insurance and the local building official.

(c) *Submission of Plans and Time Schedule for Completing Work.* – Plans and specifications, but not necessarily working drawings covering the work necessary to bring the building into compliance with this section shall be submitted to the building official within a reasonable time. (See suggested time in NOTE of Section 1008(b) above). A time schedule for accomplishing the work, including the preparation of working drawings and specifications shall be included. Some of the work may require longer periods of time to accomplish than others, and this shall be reflected in the plan and schedule.

NOTE: Suggested Time Period For Compliance:

SUGGESTED TIME PERIOD FOR COMPLIANCE

ITEM	CLASS I (SECTION)	CLASS II (SECTION)	CLASS III (SECTION)	TIME FOR COMPLETION
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Signs in Elevator Lobbies

and Elevator Cabs	1008.2(h)	1008.3(h)	1008.4(h)	180 days
Emergency Evacuation Plan	1008(b)	NOTE:		180 days
Corridor Smoke Detectors (Includes alternative door closers)	1008.2(c)	1008.3(c)	1008.4(c)	1 year
Manual Fire Alarm	1008.2(a)	1008.3(a)	1008.4(a)	1 year
Voice Communication System Required	1008.2(b)	1008.3(b)	1008.4(b)	2 years
Smoke Detectors Required	1008.2(c)	1008.3(c)	1008.4(c)	1 year
Protection and Fire Stopping for Vertical Shafts	1008.2(f)	1008.3(f)	1008.4(f)	3 years
Special Exit Requirements-Number, Location and Illumination to be in accordance with Section 1007	1008.2(e)	1008.3(e)	1008.4(e)	3 years
Emergency Electrical Power Supply	1008.2(d)	1008.3(d)	1008.4(d)	4 years
Special Exit Facilities Required	1008.2(e)	1008.3(e)	1008.4(e)	5 years
Compartmentation for Institutional Buildings	1008.2(f)	1008.3(f)	1008.4(f)	5 years
Emergency Elevator Requirements	1008.2(h)	1008.3(h)	1008.4(h)	5 years
Central Alarm Facility Required		1008.3(i)	1008.4(i)	5 years
Areas of Refuge Required on Every Eighth Floor			1008.4(j)	5 years
Smoke Venting			1008.4(k)	5 years
Fire Protection of Electrical Conductors			1008.4(l)	5 years
Sprinkler System Required			1008.4(m)	5 years

(d) *Building Official Notification of Department of Insurance.* – The building official shall send copies of written notices he sends to building owners to the Engineering and Building Codes Division for their files and also shall file an annual report by August 15th of each year covering the past fiscal year setting forth the work accomplished under the provisions of this section.

(e) *Construction Changes and Design of Life Safety Equipment.* – Plans and specifications which contain construction changes and design of life safety equipment requirements to comply with provisions of this section shall be prepared by a registered architect in accordance with provisions of Chapter 83A of the General Statutes or by a registered engineer in accordance with provisions of Chapter 89C of the General Statutes or by both an architect and engineer particularly qualified by training and experience for the type of work involved. Such

plans and specifications shall be submitted to the Engineering and Building Codes Division of the Department of Insurance for approval. Plans and specifications for I-Institutional buildings licensed by the Division of Health Service Regulation as noted in (b) above shall be submitted to the Construction Section of that Division for review and approval.

(f) *Filing of Test Reports and Maintenance on Life Safety Equipment.* – The engineer performing the design for the electrical and mechanical equipment, including sprinkler systems, must file the test results with the Engineering and Building Codes Division of the Department of Insurance, or to the agency designated by the Department of Insurance, that such systems have been tested to indicate that they function in accordance with the standards specified in this section and according to design criteria. These test results shall be a prerequisite for the Certificate of Compliance required by (b) above. Test results for I-Institutional shall be filed with the Construction Section, Division of Health Service Regulation. It shall be the duty and responsibility of the owners of Class I, II and III buildings to maintain smoke detection, fire detection, fire control, smoke removal and venting as required by this section and similar emergency systems in proper operating condition at all times. Certification of full tests and inspections of all emergency systems shall be provided by the owner annually to the fire department.

(g) *Applicability of Chapter X and Conflicts with Other Sections.* – The requirements of this section shall be in addition to those of Sections 1001 through 1007; and in case of conflict, the requirements affording the higher degree of safety to life shall apply, as determined by the building official.

(h) *Classes of Buildings and Occupancy Classifications.* – Buildings shall be classified as Class I, II or III according to Table 1008.1. In the case of mixed occupancies, for this purpose, the classification shall be the most restrictive one resulting from the application of the most prevalent occupancies to Table 1008.1.

FOOTNOTE: Emergency Plan. – Owners, operators, tenants, administrators or managers of high-rise buildings should consult with the fire authority having jurisdiction and establish procedures which shall include but not necessarily be limited to the following:

- (1) Assignment of a responsible person to work with the fire authority in the establishment, implementation and maintenance of the emergency pre-fire plan.
- (2) Emergency plan procedures shall be supplied to all tenants and shall be posted conspicuously in each hotel guest room, each office area, and each schoolroom.
- (3) Submission to the local fire authority of an annual renewal or amended emergency plan.
- (4) Plan should be completed as soon as possible.

1008.1 – ALL EXISTING BUILDINGS SHALL BE CLASSIFIED AS CLASS I, II AND III ACCORDING TO TABLE 1008.1.

TABLE 1008.1
Scope

CLASS (1)	OCCUPANCY GROUP (3)(4)	OCCUPIED FLOOR ABOVE AVERAGE GRADE EXCEEDING HEIGHT (2)
CLASS I	Group R-Residential	60' but less than
	Group B-Business	120' above average
	Group E-Educational	grade or 6 but less
	Group A-Assembly	than 12 stories above
	Group H-Hazardous average grade.	
	Group I-Institutional-Restrained 1	

	Group I Institutional Unrestrained	36' but less than 60' above average grade or 3 but less than 6 stories above average grade.
CLASS II	Group R-Residential	120' but less than
	Group B-Business	250' above average
	Group E-Educational	grade or 12 but less
	Group A-Assembly	than 25 stories
	Group H-Hazardous	above average grade.
	Group I-Institutional-Restrained	
	Group I-Institutional-Unrestrained	60' but less than 250' above average grade or 6 but less than 25 stories above average grade.
CLASS III	Group R-Residential	250' or 25 stories
	Group B-Business	above average grade.
	Group E-Educational	
	Group I-Institutional	
	Group A-Assembly	
	Group H-Hazardous	

NOTE 1: The entire building shall comply with this section when the building has an occupied floor above the height specified, except that portions of the buildings which do not exceed the height specified are exempt from this section, subject to the following provisions:

- (a) Low-rise portions of Class I buildings must be separated from high-rise portions by one-hour construction.
- (b) Low-rise portions of Class II and III buildings must be separated from high-rise portions by two-hour construction.
- (c) Any required exit from the high-rise portion which passes through the low-rise portions must be separated from the low-rise portion by the two-hour construction.

NOTE 2: The height described in Table 1008.1 shall be measured between the average grade outside the building and the finished floor of the top occupied story.

NOTE 3: Public parking decks meeting the requirements of Section 412.7 and less than 75 feet in height are exempt from the requirements of this section when there is no other occupancy above or below such deck.

NOTE 4: Special purpose equipment buildings, such as telephone equipment buildings housing the equipment only, with personnel occupant load limited to persons required to maintain the equipment may be exempt from any or all of these requirements at the discretion of the Engineering and Building Codes Division provided such special purpose equipment building is separated from other portions of the building by two-hour fire rated construction.

1008.2–REQUIREMENTS FOR EXISTING CLASS I BUILDINGS.

All Class I buildings shall be provided with the following:

- (a) An approved manual fire alarm system, meeting the requirements of Section 1125 and applicable portions of NFPA 71, 72A, 72B, 72C or 72D, shall be provided unless the building is fully sprinklered or equipped with an approved automatic fire detection system connected to the fire department.
- (b) All Class I buildings shall meet the requirements of Sections 1001-1007.
- (c) *Smoke Detectors Required.* – At least one approved listed smoke detector tested in accordance with UL-167, capable of detecting visible and invisible particles of combustion shall be installed as follows:

- (1) All buildings classified as institutional, residential and assembly occupancies shall be provided with listed smoke detectors in all required exit corridors spaced no further than 60' on center or more than 15' from any wall. Exterior corridors open to the outside are not required to comply with this requirement. If the corridor walls have one-hour fire resistance rating with all openings protected with 1-3/4 inch solid wood core or hollow metal door or equivalent and all corridor doors are equipped with approved self-closing devices, the smoke detectors in the corridor may be omitted. Detectors in corridors may be omitted when each dwelling unit is equipped with smoke detectors which activate the alarm system.
- (2) In every mechanical equipment, boiler, electrical equipment, elevator equipment or similar room unless the room is sprinklered or the room is separated from other areas by two-hour fire resistance construction with all openings therein protected with approved fire dampers and Class B fire doors. (Approved listed fire (heat) detectors may be submitted for these rooms.)
- (3) In the return air portion of every air conditioning and mechanical ventilation system that serves more than one floor.
- (4) The activation of any detector shall activate the alarm system, and shall cause such other operations as required by this Code.
- (5) The annunciator shall be located near the main entrance or in a central alarm and control facility.

NOTE 1: Limited area sprinklers may be supplied from the domestic water system provided the domestic water system is designed to support the design flow of the largest number of sprinklers in any one of the enclosed areas. When supplied by the domestic water system, the maximum number of sprinklers in any one enclosed room or area shall not exceed 20 sprinklers which must totally protect the room or area.

(d) *Emergency Electrical Power Supply.* – An emergency electrical power supply shall be provided to supply the following for a period of not less than two hours. An emergency electrical power supply may consist of generators, batteries, a minimum of two remote connections to the public utility grid supplied by multiple generating stations, a combination of the above.

- (1) Emergency, exit and elevator cab lighting.
- (2) Emergency illumination for corridors, stairs, etc.
- (3) Emergency Alarms and Detection Systems. – Power supply for fire alarm and fire detection. Emergency power does not need to be connected to fire alarm or detection systems when they are equipped with their own emergency power supply from float or trickle charge battery in accordance with NFPA standards.

(e) *Special Exit Requirements.* – Exits and exitways shall meet the following requirements:

- (1) Protection of Stairways Required. – All required exit stairways shall be enclosed with noncombustible one-hour fire rated construction with a minimum of 1 3/4 inch solid core wood door or hollow metal door or 20 minute UL listed doors as entrance thereto. (See Section 1007.5).
- (2) Number and Location of Exits. – All required exit stairways shall meet the requirements of Section 1007 to provide for proper number and location and proper fire rated enclosures and illumination of and designation for means of egress.
- (3) Exit Outlets. – Each required exit stair shall exit directly outside or through a separate one-hour fire rated corridor with no openings except the necessary

openings to exit into the fire rated corridor and from the fire rated corridor and such openings shall be protected with 1 3/4 inch solid wood core or hollow metal door or equivalent unless the exit floor level and all floors below are equipped with an approved automatic sprinkler system meeting the requirements of NFPA No. 13.

(f) *Smoke Compartments Required for I-Institutional Buildings.* – Each occupied floor shall be divided into at least two compartments with each compartment containing not more than 30 institutional occupants. Such compartments shall be subdivided with one-half hour fire rated partitions which shall extend from outside wall to outside wall and from floor to and through any concealed space to the floor slab or roof above and meet the following requirements:

- (1) Maximum area of any smoke compartment shall be not more than 22,500 square feet in area with both length and width limited to 150 feet.
- (2) At least one smoke partition per floor regardless of building size forming two smoke zones of approximately equal size.
- (3) All doors located in smoke partitions shall be properly gasketed to insure a substantial barrier to the passage of smoke and gases.
- (4) All doors located in smoke partitions shall be no less than 1 3/4 inch thick solid core wood doors with UL, 1/4 inch wire glass panel in metal frames. This glass panel shall be a minimum of 100 square inches and a maximum of 720 square inches.
- (5) Every door located in a smoke partition shall be equipped with an automatic closer. Doors that are normally held in the open position shall be equipped with an electrical device that shall, upon actuation of the fire alarm or smoke detection system in an adjacent zone, close the doors in that smoke partition.
- (6) Glass in all corridor walls shall be 1/4", UL approved, wire glass in metal frames in pieces not to exceed 1296 square inches.
- (7) Doors to all patient rooms and treatment areas shall be a minimum of 1 3/4 inch solid core wood doors except in fully sprinklered buildings.

(g) *Protection and Fire Stopping for Vertical Shafts.* – All vertical shafts extending more than one floor including elevator shafts, plumbing shafts, electrical shafts and other vertical openings shall be protected with noncombustible two-hour fire rated construction with Class B-labeled door except for elevator doors which shall be hollow metal or equivalent. All vertical shafts which are not so enclosed must be fire stopped at each floor slab with noncombustible materials having a fire resistance rating of not less than two hours to provide an effective barrier to the passage of smoke, heat and gases from floor to floor through such shaft.

EXCEPTION: Shaft wall openings protected in accordance with NFPA No. 90A and openings connected to metal ducts equipped with approved fire dampers within the shaft wall opening do not need any additional protection.

(h) *Signs in Elevator Lobbies and Elevator Cabs.* – Each elevator lobby call station on each floor shall have an emergency sign located adjacent to the call button and each elevator cab shall have an emergency sign located adjacent to the floor status indicator. The required emergency sign shall be readable at all times and shall be a minimum of 1/2" high block letters with the words: "IN CASE OF FIRE DO NOT USE ELEVATOR – USE THE EXIT STAIRS" or other words to this effect.

1008.3 – REQUIREMENTS FOR EXISTING CLASS II BUILDINGS.

All Class II buildings must meet the following requirements:

(a) *Manual Fire Alarm.* – Provide manual fire alarm system in accordance with Section 1008.2(a). In addition, buildings so equipped with sprinkler alarm system or automatic fire detection system must have at least one manual fire alarm station near an exit on each floor as a

part of such sprinkler or automatic fire detection and alarm system. Such manual fire alarm systems shall report a fire by floor.

(b) *Voice Communication System Required.* – An approved voice communication system or systems operated from the central alarm and control facilities shall be provided and shall consist of the following:

- (1) *One-Way Voice Communication Public Address System Required.* – A one-way voice communication system shall be established on a selective basis which can be heard clearly by all occupants in all exit stairways, elevators, elevator lobbies, corridors, assembly rooms and tenant spaces.

NOTE 1: This system shall function so that in the event of one circuit or speaker being damaged or out of service, the remainder of the system shall continue to be operable.

NOTE 2: This system shall include provisions for silencing the fire alarm devices when the loud speakers are in use, but only after the fire alarm devices have operated initially for not less than 15 seconds.

(c) *Smoke Detectors Required.* – Smoke detectors are required as per Section 1008.2(c). The following are additional requirements:

- (1) Storage rooms larger than 24 square feet or having a maximum dimension of over eight feet shall be provided with approved fire detectors or smoke detectors installed in an approved manner unless the room is sprinklered.
- (2) The actuation of any detectors shall activate the fire alarm system.

(d) *Emergency Electrical Power Supply.* – An emergency electrical power supply shall be provided to supply the following for a period of not less than two hours. An emergency electrical power supply may consist of generators, batteries, a minimum of two remote connections to the public utility grid supplied by multiple generating stations, a combination of the above. Power supply shall furnish power for items listed in Section 1008.2(d) and the following:

- (1) *Pressurization Fans.* – Fans to provide required pressurization, smoke venting or smoke control for stairways.
- (2) *Elevators.* – The designated emergency elevator.

(e) *Special Exit Facilities Required.* – The following exit facilities are required:

- (1) The special exit facilities required in 1008.2(e) are required. All required exit stairways shall be enclosed with noncombustible two-hour fire rated construction with a minimum of 1 1/2 hour Class B-labeled doors as entrance thereto: (See Section 1007.5).
- (2) *Smoke-Free Stairways Required.* – At least one stairway shall be a smoke free stairway in accordance with Section 1104.2 or at least one stairway shall be pressurized to between 0.15 inch and 0.35 inch water column pressure with all doors closed. Smoke-free stairs and pressurized stairs shall be identified with signs containing letters a minimum of 1/2 inch high containing the words "PRIMARY EXIT STAIRS" unless all stairs are smoke free or pressurized. Approved exterior stairways meeting the requirements of Chapter XI or approved existing fire escapes meeting the requirements of Chapter X with all openings within 10 feet protected with wire glass or other properly designed stairs protected to assure similar smoke-free vertical egress may be permitted. All required exit stairways shall also meet the requirements of Section 1008.2(e).
- (3) If stairway doors are locked from the stairway side, keys shall be provided to unlock all stairway doors on every eighth floor leading into the remainder of the building and the key shall be located in a glass enclosure adjacent to the door at each floor level (which may sound an alarm when the glass is broken).

When the key unlocks the door, the hardware shall be of the type that remains unlocked after the key is removed. Other means, approved by the building official may be approved to enable occupants and fire fighters to readily unlock stairway doors on every eighth floor that may be locked from the stairwell side. The requirements of this section may be eliminated in smoke-free stairs and pressurized stairs provided fire department access keys are provided in locations acceptable to the local fire authority.

(f) *Compartmentation for I-Institutional Buildings Required.* – See Section 1008.2(f).

(g) *Protection and Fire Stopping for Vertical Shafts.* – All vertical shafts extending more than one floor including elevator shafts, plumbing shafts, electrical shafts and other vertical openings shall be protected with noncombustible two-hour fire rated construction with Class B-labeled door except for elevator doors which shall be hollow metal or equivalent. All vertical shafts which are not so enclosed must be fire stopped at each floor slab with noncombustible materials having a fire resistance rating of not less than two hours to provide an effective barrier to the passage of smoke, heat and gases from floor to floor through such shaft.

EXCEPTION: Shaft wall openings protected in accordance with NFPA No. 90A and openings connected to metal ducts equipped with approved fire dampers within the shaft wall opening do not need any additional protection.

(h) *Emergency Elevator Requirements.*

- (1) Elevator Recall. – Each elevator shall be provided with an approved manual return. When actuated, all cars taking a minimum of one car at a time, in each group of elevators having common lobby, shall return directly at normal car speed to the main floor lobby, or to a smoke-free lobby leading most directly to the outside. Cars that are out of service are exempt from this requirement. The manual return shall be located at the main floor lobby.

NOTE: Manually operated cars are considered to be in compliance with this provision if each car is equipped with an audible or visual alarm to signal the operator to return to the designated level.

- (2) Identification of Emergency Elevator. – At least one elevator shall be identified as the emergency elevator and shall serve all floor levels.

NOTE: This elevator will have a manual control in the cab which will override all other controls including floor call buttons and door controls.

- (3) Signs in Elevator Lobbies and Elevator Cabs. – Each elevator lobby call station on each floor shall have an emergency sign located adjacent to the call button and each elevator cab shall have an emergency sign located adjacent to the floor status indicator. These required emergency signs shall be readable at all times and shall be a minimum of 1/2 inch high block letters with the words: "IN CASE OF FIRE DO NOT USE ELEVATOR – USE THE EXIT STAIRS" or other words to this effect.

(i) *Central Alarm Facility Required.* – A central alarm facility accessible at all times to fire department personnel or attended 24 hours a day, shall be provided and shall contain the following:

- (1) Facilities to automatically transmit manual and automatic alarm signals to the fire department either directly or through a signal monitoring service.
- (2) Public service telephone.
- (3) Fire detection and alarm systems annunciator panels to indicate the type of signal and the floor or zone from which the fire alarm is received. These signals shall be both audible and visual with a silence switch for the audible.

NOTE: Detectors in HVAC systems used for fan shut down need not be annunciated.

- (4) Master keys for access from all stairways to all floors.
- (5) One-way voice emergency communications system controls.

1008.4 – REQUIREMENTS FOR EXISTING CLASS III BUILDINGS.

All Class III Buildings shall be provided with the following:

(a) *Manual Fire Alarm System.* – A manual fire alarm system meeting the requirements of Section 1008.3(a).

(b) *Voice Communication System Required.* – An approved voice communication system or systems operated from the central alarm and control facilities shall be provided and shall consist of the following:

- (1) *One-Way Voice Communication Public Address System Required.* – A one-way voice communication system shall be established on a selective or general basis which can be heard clearly by all occupants in all elevators, elevator lobbies, corridors, and rooms or tenant spaces exceeding 1,000 sq. ft. in area.

NOTE 1: This system shall be designed so that in the event of one circuit or speaker being damaged or out of service the remainder of the system shall continue to be operable.

NOTE 2: This system shall include provisions for silencing the fire alarm devices when the loud speakers are in use, but only after the fire alarm devices have operated initially for not less than 15 seconds.

- (2) Two-way system for use by both fire fighters and occupants at every fifth level in stairways and in all elevators.
- (3) Within the stairs at levels not equipped with two-way voice communications, signs indicating the location of the nearest two-way device shall be provided.

NOTE: The one-way and two-way voice communication systems may be combined.

(c) *Smoke Detectors Required.* – Approved listed smoke detectors shall be installed in accordance with Section 1008.3(c) and in addition, such detectors shall terminate at the central alarm and control facility and be so designed that it will indicate the fire floor or the zone on the fire floor.

(d) *Emergency Electrical Power Supply.* – Emergency electrical power supply meeting the requirements of Section 1008.3(d) to supply all emergency equipment required by Section 1008.3(d) shall be provided and in addition, provisions shall be made for automatic transfer to emergency power in not more than ten seconds for emergency illumination, emergency lighting and emergency communication systems. Provisions shall be provided to transfer power to a second designated elevator located in a separate shaft from the primary emergency elevator. Any standpipe or sprinkler system serving occupied floor areas 400 feet or more above grade shall be provided with on-site generated power or diesel driven pump.

(e) *Special Exit Requirements.* – All exits and exitways shall meet the requirements of Section 1008.3(e).

(f) *Compartmentation of Institutional Buildings Required.* – See Section 1008.2(f).

(g) *Protection and Fire Stopping for Vertical Shafts.* – Same as Class II buildings. See Section 1008.3(g).

(h) *Emergency Elevator Requirements.*

- (1) *Primary Emergency Elevator.* – At least one elevator serving all floors shall be identified as the emergency elevator with identification signs both outside and inside the elevator and shall be provided with emergency power to meet the requirements of Section 1008.3(c).

NOTE: This elevator will have a manual control in the cab which will override all other controls including floor call buttons and door controls.

- (2) *Elevator Recall.* – Each elevator shall be provided with an approved manual return. When actuated, all cars taking a minimum of one car at a time, in each group of elevators having common lobby, shall return directly at normal car speed to the main floor lobby or to a smoke-free lobby leading most directly

to the outside. Cars that are out of service are exempt from this requirement.

The manual return shall be located at the main floor lobby.

NOTE: Manually operated cars are considered to be in compliance with this provision if each car is equipped with an audible or visual alarm to signal the operator to return to the designated level.

- (3) Signs in Elevator Lobbies and Elevator Cabs. – Each elevator lobby call station on each floor shall have an emergency sign located adjacent to the call button and each elevator cab shall have an emergency sign located adjacent to the floor status indicator. These required emergency signs shall be readable at all times and have a minimum of 1/2" high block letters with the words: "IN CASE OF FIRE, UNLESS OTHERWISE INSTRUCTED, DO NOT USE THE ELEVATOR – USE THE EXIT STAIRS" or other words to this effect.
- (4) Machine Room Protection. – When elevator equipment located above the hoistway is subject to damage from smoke particulate matter, cable slots entering the machine room shall be sleeved beneath the machine room floor to inhibit the passage of smoke into the machine room.
- (5) Secondary Emergency Elevator. – At least one elevator located in separate shaft from the Primary Emergency Elevator shall be identified as the "Secondary Emergency Elevator" with identification signs both outside and inside the elevator. It will serve all occupied floors above 250 feet and shall have all the same facilities as the primary elevator and will be capable of being transferred to the emergency power system.

NOTE: Emergency power supply can be sized for nonsimultaneous use of the primary and secondary emergency elevators.

(i) *Central Alarm and Control Facilities Required.*

- (1) A central alarm facility accessible at all times to Fire Department personnel or attended 24 hours a day, shall be provided. The facility shall be located on a completely sprinklered floor or shall be enclosed in two-hour fire resistive construction. Openings are permitted if protected by listed 1 1/2 hour Class B-labeled closures or water curtain devices capable of a minimum discharge of three gpm per lineal foot of opening. The facility shall contain the following:
 - (i) Facilities to automatically transmit manual and automatic alarm signals to the fire department either directly or through a signal monitoring service.
 - (ii) Public service telephone.
 - (iii) Direct communication to the control facility.
 - (iv) Controls for the voice communication systems.
 - (v) Fire detection and alarm system annunciator panels to indicate the type of signal and the floor or zone from which the fire alarm is received, those signals, shall be both audible and visual with a silence switch for the audible.

NOTE: Detectors in HVAC systems used for fan shut down need not be annunciated.

- (2) A control facility (fire department command station) shall be provided at or near the fire department response point and shall contain the following:
 - (i) Elevator status indicator.
NOTE: Not required in buildings where there is a status indicator at the main elevator lobby.
 - (ii) Master keys for access from all stairways to all floors.
 - (iii) Controls for the two-way communication system.

- (iv) Fire detection and alarm system annunciator panels to indicate the type of signal and the floor or zone from which the fire alarm is received.
 - (v) Direct communication to the central alarm facility.
- (3) The central alarm and control facilities may be combined in a single approved location. If combined, the duplication of facilities and the direct communication system between the two may be deleted.
- (j) *Areas of Refuge Required.* – Class III buildings shall be provided with a designated "area of refuge" at the 250 ft. level and on at least every eighth floor or fraction thereof above that level to be designed so that occupants above the 250 ft. level can enter at all times and be safely accommodated in floor areas meeting the following requirements unless the building is completely sprinklered:
- (1) *Identification and Size.* – These areas of refuge shall be identified on the plans and in the building as necessary. The area of refuge shall provide not less than 3 sq. ft. per occupant for the total number of occupants served by the area based on the occupancy content calculated by Section 1105. A minimum of two percent (2%) of the number of occupants on each floor shall be assumed to be handicapped and no less than 16 sq. ft. per handicapped occupant shall be provided. Smoke proof stairways meeting the requirements of Section 1104.2 and pressurized stairways meeting the requirements of Section 1108.3(e)(2) may be used for ambulatory occupants at the rate of 3 sq. ft. of area of treads and landings per person, but in no case shall the stairs count for more than one-third of the total occupants. Doors leading to designated areas of refuge from stairways or other areas of the building shall not have locking hardware or shall be automatically unlocked upon receipt of any manual or automatic fire alarm signal.
 - (2) *Pressurized.* – The area of refuge shall be pressurized with 100% fresh air utilizing the maximum capacity of existing mechanical building air conditioning system without recirculation from other areas or other acceptable means of providing fresh air into the area.
 - (3) *Fire Resistive Separation.* – Walls, partitions, floor assemblies and roof assemblies separating the area of refuge from the remainder of the building shall be noncombustible and have a fire resistance rating of not less than one hour. Duct penetrations shall be protected as required for penetrations of shafts. Metallic piping and metallic conduit may penetrate or pass through the separation only if the openings around the piping or conduit are sealed on each side of the penetrations with impervious noncombustible materials to prevent the transfer of smoke or combustion gases from one side of the separation to the other. The fire door serving as a horizontal exit between compartments shall be so installed, fitted and gasketed to provide a barrier to the passage of smoke.
 - (4) *Access Corridors.* – Any corridor leading to each designated area of refuge shall be protected as required by Sections 1104 and 702. The capacity of an access corridor leading to an area of refuge shall be based on 150 persons per unit width as defined in Section 1105.2. An access corridor may not be less than 44 inches in width. The width shall be determined by the occupant content of the most densely populated floor served. Corridors with one-hour fire resistive separation may be utilized for area of refuge at the rate of three sq. ft. per ambulatory occupant provided a minimum of one cubic ft. per minute of outside air per square foot of floor area is introduced by the air conditioning system.

(5) Penetrations. – The continuity of the fire resistance at the juncture of exterior walls and floors must be maintained.

(k) *Smoke Venting.* – Smoke venting shall be accomplished by one of the following methods in nonsprinklered buildings:

(1) In a nonsprinklered building, the heating, ventilating and air conditioning system shall be arranged to exhaust the floor of alarm origin at its maximum exhausting capacity without recirculating air from the floor of alarm origin to any other floor. The system may be arranged to accomplish this either automatically or manually. If the air conditioning system is also used to pressurize the areas of refuge, this function shall not be compromised by using the system for smoke removal.

(2) Venting facilities shall be provided at the rate of 20 square feet per 100 lineal feet or 10 square feet per 50 lineal feet of exterior wall in each story and distributed around the perimeter at not more than 50 or 100 foot intervals openable from within the fire floor. Such panels and their controls shall be clearly identified.

(3) Any combination of the above two methods or other approved designs which will produce equivalent results and which is acceptable to the building official.

(l) *Fire Protection of Electrical Conductors.* – New electrical conductors furnishing power for pressurization fans for stairways, power for emergency elevators and fire pumps required by Section 1008.4(d) shall be protected by a two-hour fire rated horizontal or vertical enclosure or structural element which does not contain any combustible materials. Such protection shall begin at the source of the electrical power and extend to the floor level on which the emergency equipment is located. It shall also extend to the emergency equipment to the extent that the construction of the building components on that floor permits. New electrical conductors in metal raceways located within a two-hour fire rated assembly without any combustible therein are exempt from this requirement.

(m) *Automatic Sprinkler Systems Required.*

(1) All areas which are classified as Group M-mercantile and Group H-hazardous shall be completely protected with an automatic sprinkler system.

(2) All areas used for commercial or institutional food preparation and storage facilities adjacent thereto shall be provided with an automatic sprinkler system.

(3) An area used for storage or handling of hazardous substances shall be provided with an automatic sprinkler system.

(4) All laboratories and vocational shops in Group E, Educational shall be provided with an automatic sprinkler system.

(5) Sprinkler systems shall be in strict accordance with NFPA No. 13 and the following requirements:

The sprinkler system must be equipped with a water flow and supervisory signal system that will transmit automatically a water flow signal directly to the fire department or to an independent signal monitoring service satisfactory to the fire department.

(j) Subsection (i) of this section does not apply to business occupancy buildings as defined in the North Carolina State Building Code except that evacuation plans as required on page 8, lines 2 through 16 [Section 1008, footnote following subsection (h)], and smoke detectors as required for Class I Buildings as required by Section 1008.2, page 11, lines 5 through 21 [Section 1008.2, subdivision (c)(1)]; Class II Buildings as required by Section 1008.3, page 17, lines 17 through 28 and page 18, lines 1 through 10 [Section 1008.3, subsections (c) and (d)]; and Class III Buildings, as required by Section 1008.4, lines 21 through 25 [Section 1008.4,

subsection (c)] shall not be exempted from operation of this act as applied to business occupancy buildings, except that the Council shall adopt rules that allow a business occupancy building built prior to 1953 to have a single exit to remain if the building complies with the Building Code on or before December 31, 2006.

(j1) A nonbusiness occupancy building built prior to the adoption of the 1953 Building Code that is not in compliance with Section 402.1.3.5 of Volume IX of the Building Code or Section 3407.2.2 of Volume I of the Building Code must comply with the applicable sections by December 31, 2006.

(j2) Repealed by Session Laws 2014-79, s. 5, effective July 22, 2014.

(k) For purposes of use in the Code, the term "Family Care Home" shall mean an adult care home having two to six residents.

(l) When any question arises as to any provision of the Code, judicial notice shall be taken of that provision of the Code. (1957, c. 1138; 1969, c. 567; c. 1229, ss. 2-6; 1971, c. 1100, ss. 1, 2; 1973, c. 476, ss. 84, 128, 138, 152; c. 507, s. 5; 1981, c. 677, s. 3; c. 713, ss. 1, 2; 1981 (Reg. Sess., 1982), c. 1282, s. 20.2D; c. 1348, s. 1; 1983, c. 614, s. 3; 1985, c. 576, s. 1; c. 622, s. 2; c. 666, s. 39; 1989, c. 25, s. 2; c. 681, ss. 2, 3, 9, 10, 18, 19; c. 727, ss. 157, 158; 1991 (Reg. Sess., 1992), c. 895, s. 1; 1993, c. 329, ss. 1, 3; c. 539, s. 1009; 1994, Ex. Sess., c. 24, s. 14(c); 1995, c. 111, s. 1; c. 242, s. 1; c. 507, s. 27.8(r); c. 535, s. 30; 1997-26, ss. 1-3, 5; 1997-443, ss. 11A.93, 11A.94, 11A.118(a), 11A.119(a); 1998-57, s. 2; 1998-172, s. 1; 1998-202, s. 4(u); 1999-456, s. 40; 2000-137, s. 4(x); 2000-140, s. 93.1(a); 2001-141, ss. 1, 2, 3, 4.; 2001-421, ss. 1.1, 1.2, 1.5; 2001-424, s. 12.2(b); 2002-144, s. 5; 2003-221, s. 6; 2003-284, s. 22.2; 2004-124, ss. 21.1, 21.2; 2005-205, s. 6; 2007-182, ss. 1, 2; 2007-529, s. 1; 2007-542, s. 1; 2008-176, s. 2; 2008-219, s. 1; 2009-79, s. 1(a)-(c); 2009-243, s. 1; 2009-532, s. 1; 2009-570, s. 18; 2010-97, s. 6(b); 2011-145, s. 19.1(mm); 2011-364, s. 1; 2012-34, s. 1; 2012-187, s. 16.1; 2013-75, s. 1; 2013-118, ss. 2, 3; 2013-206, s. 2; 2013-265, s. 18; 2013-413, ss. 19(a), 41; 2014-79, s. 5; 2014-90, s. 1; 2014-115, s. 17; 2014-120, s. 22(c); 2015-145, ss. 4.1, 5.2; 2015-241, s. 14.30(s), (u); 2015-263, s. 34; 2016-113, s. 13(a); 2017-10, ss. 1.3(b), 1.4; 2017-108, s. 8(b); 2017-130, s. 8(a); 2017-186, s. 2(aaaaa); 2017-212, s. 8.11; 2018-65, s. 2(a); 2019-174, s. 4; 2021-121, s. 2; 2021-180, s. 19C.9(ttt); 2021-192, ss. 2(a), (b), 4(b); 2022-55, s. 1.)