2018 NC Administrative Code 107.6 Inspections of component or element. (190910 Item B-6)

<u>107.6 Inspections of component or element.</u> Acceptance of inspection of a component or element by a NC registered architect or engineer will require completion of the "Design Professional Inspection Form" found in Appendix G.

SUBMISSION FOR PERMANENT RULE APPENDIX G

DESIGN PROFESSIONAL INSPECTION FORM

RECORD OF THE INSPECTION OF A **COMPONENT OR ELEMENT** BY A NC LICENSED ARCHITECT OR ENGINEER

Residential Single-Family	Proiect: Y N	Commercial Project: Y N
Code Enforcement Project No:		Permit No:
Project Name:		Owner:
Project Address:		Suite No:
Date Inspected:		Contractor Name:
Component Inspected:		
esponsible Licensed	NC Architect or N	C Engineer
Name:		
Firm Name:	0.00	
Phone Numbers:	Office:	Mobile:
Email Address:		
Mailing Address:		
APPLICABLE CODE: 2018 NCBC = 2018 NC B	uilding Code; 2018 NC	CRC = 2018 NC Residential Code
Describe Element/Comp	oonent/Type of Inspec	tion: *
*/subgrade form/letter.n	nav also be required)	
*(subgrade form/letter n Attestation/Signature		

By signing below, I certify that the component and/or element of the building as identified on this form has been inspected by me or someone under my direct supervision per G.S. 160D-11-6 and is in compliance with the Code or other proposal of the architect or engineer for the project. This inspection is in compliance with all of the requirements of the above referenced

code. Attach any additional documents if needed.

SEAL

Licensed Architect or Engineer

Inspection Department disclaimer:

Upon the receipt of a signed written document as required by G.S. 160D-11-6, Code Enforcement shall be discharged and released from any liabilities, duties and responsibilities imposed by this article or in common law from any claim arising out of or attributed to the component or element in the construction of the building for which the signed written document was submitted. Be aware that this inspection will be noted in all inspection records including the Certificate of Occupancy or Certificate of Compliance. This inspection does not address any local ordinances or zoning requirements.

2018 NC Residential Code R311.7.8.1 Height. (190910 Item B-15)

R311.7.8.1 Height. Handrail height, measured vertically from the sloped plane adjoining the tread nosing, or finish surface of ramp slope, shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm).

Exceptions:

- 1. The use of a volute, turnout, or starting easing <u>or starting newel</u> shall be allowed over the lowest tread.
- 2. When handrail fittings or bendings are used to provide continuous transition between flights, the transition from handrail to *guard*, or used at the start of a flight, the handrail height at the fittings or bendings shall be permitted to exceed the maximum height.

2018 NC Building Code 905.3.1 Height. (190910 Item B-3)

905.3.1 Height. Class III standpipe systems shall be installed throughout buildings where the floor level of the highest story is located more than 30 feet (9144 mm) above the lowest level of the fire department vehicle access, or where the floor level of the lowest story is located more than 30 feet (9144 mm) below the heights level of fire department vehicle access. any of the following exist:

- 1. Four or more stories are above or below grade plane.
- 2. The floor level of the highest *story* is located more than 30 feet (9144 mm) above the lowest level of the fire department vehicle access.
- 3. The floor level of the lowest *story* is located more than 30 feet (9144 mm) below the highest level of fire department vehicle access.

Exceptions:

- 1. Class I standpipes are allowed in *buildings* equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.
- 2. Class I standpipes are allowed in Group B and E occupancies.
- 2 <u>3</u>. Class I manual standpipes are allowed in *open parking garages* where the highest floor is located not more than 150 feet (45720 mm) above the lowest level of fire department vehicle access.
- 3 <u>4</u>. Class I manual dry standpipes are allowed in *open parking garages* that are subject to freezing temperatures, provided that the hose connections are located as required for Class II standpipes in accordance with Section 905.5.
- 4-5. Class I standpipes are allowed in *basements* equipped throughout with an *automatic sprinkler system*.
- 6. Class I standpipes are allowed in buildings where occupant-use hose lines will not be utilized by trained personnel or the fire department.
- <u>5.7</u>. In determining the lowest level of fire department vehicle access, it shall not be required to consider either of the following:
- <u>5_7.1</u> Recessed loading docks for four vehicles or less.
- <u>5.7.2</u> Conditions where topography makes access from the fire department vehicle to the building impractical or impossible.

2018 NC Fire Code

321 Temporary Sleeping Units for Disaster Relief Workers. (190910 Item B-14)

SECTION 321

TEMPORARY SLEEPING UNITS FOR DISASTER RELIEF WORKERS

321.1 General.

This section shall apply to temporary use of *existing buildings* for purposes of providing sleeping units for volunteer disaster relief workers supporting a disaster declaration issued by the Governor of North Carolina. *Existing buildings* shall be permitted to provide temporary sleeping facilities for disaster relief workers provided that all the provisions of this section are met and *approved* by the local code officials.

Facilities complying with 321 shall not require compliance with other provisions of this code or the Building Code.

Exception: *Buildings* containing the following occupancies or uses shall not be used for temporary *sleeping units* for disaster relief workers:

- 1. Group F
- 2. Group H
- 3. Group S-1 vehicle repair garage
- 4. Group S-1 bulk tire storage
- 5. Woodworking operations

321.2 Permit required.

An operational permit as designated in 105.6.49 shall be required.

321.3 Short-Term Occupancy.

Short-term occupancies meeting the requirements of this section shall be permitted in *existing buildings* that have a current certificate of occupancy and connected electrical service. Use of a *building* or portion thereof for a short-term occupancy shall not exceed two days within 30 consecutive days.

<u>321.3.1 Fire alarm and detection systems.</u> Functioning smoke detection as required for the *existing building* or single station battery operated *smoke alarms* where no system exists shall be provided throughout the sleeping room, *exit access corridors*, and *stairs* serving the *sleeping units* per 907.2.11.

Carbon monoxide detection devices shall be provided as required by 915.1.4 when fuel fired appliances are present.

- <u>321.3.2 Ventilation and temperature control.</u> Heating, cooling, and *ventilation* must be provided by equipment installed and *approved* for such use. Use of portable space heaters shall be prohibited.
- 321.3.3 Plumbing fixtures. Plumbing fixtures shall be provided as required for Group R-2 by the NC Plumbing Code, Section 403 for the number of disaster relief workers occupying the *building*. Temporary facilities are permitted as *approved* by the local code official.
- 321.3.4 Accessibility. *Sleeping units* for temporary disaster relief workers complying with the NC Building Code, Chapter 11 and Section 1009 are not required provided that the building owner or supporting organization has other sleeping facilities that are accessible by the disabled within the same jurisdiction as the temporary *sleeping units*.
- **321.4 Long-term Occupancy.** Long-term occupancies meeting the requirements of this section and 321.3 shall be permitted in *existing buildings* that have a current certificate of occupancy and connected electrical service. Long-term occupancies are for periods exceeding Short-term occupancy as designated in Section 321.3 with a maximum of 180 consecutive calendar days. The local fire official may extend the initial time period up to an additional 180-day period as often as needed if the building owner or his or her designee provides documentation satisfactory to the local fire official that an extension of time is necessary to support local disaster relief efforts and the fire official verifies that the building remains in compliance with this section.
- <u>321.4.1 Occupant load and age.</u> The maximum number of disaster relief workers permitted in the occupancy is 20 ambulatory individuals. The disaster relief workers must be 18 years of age or older.

Exception: Occupants may be less than 18 years of age if the sleeping unit meets all of the following conditions:

- 1. Is intended to serve disaster relief worker families with children and their parents or other legal guardian; and 2. Is equipped with *smoke alarms* meeting applicable code provisions for such devices in all sleeping areas.
- <u>321.4.2 Staff.</u> The sleeping units must be staffed by a minimum of two individuals of 21 years of age or older trained in accordance with Chapter 4 of the NC 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 disaster relief workers.
- 321.4.3 Fire alarm and detection systems. Functioning smoke detection as required for the existing building or single station smoke alarms where no system exists shall be provided throughout the sleeping room, exit access corridors, and stairs serving the sleeping units per 907.2.11.

Carbon monoxide detection devices shall be provided as required by 915.1.4 when fuel fired appliances are present.

Building owner or his or her designee shall submit documentation illustrating that the *smoke alarm* is *approved* and that all emergency batteries have been tested and are operational.

<u>321.4.4 Fire extinguishers.</u> There must be an adequate number of fire extinguishers to serve the *sleeping units* as determined by the local fire code official. Travel distance to an approved fire extinguisher shall not exceed 50 feet. Minimum rating of extinguishers shall be 3A-40BC.

<u>321.4.5 Automatic sprinkler system.</u> No fire protection sprinkler system is required per 903.2.8, Exception #6. Any *existing* fire sprinkler system shall be operational.

Exception: Sprinkler system required by 321.4.7.

- 321.4.6 Means of egress. There shall be a minimum of two separate code compliant *means of egress* serving the *sleeping units*. An evacuation route approved by the local fire code officials shall be posted and be in compliance with Sections 401, 403, 404, and 406 of the NC Fire Code.
- <u>321.4.6.1 Illumination.</u> The disaster relief workers sleeping rooms and *exit access* corridors and stairs shall have unswitched illumination and emergency powered illumination with a duration of not less than 90-minutes.
- <u>321.4.7 Location of sleeping units.</u> *Sleeping units* above or below the *level of exit discharge* are required to have a fire sprinkler system complying with 903.3 or an automatic smoke detection system complying with 907.2.8.2.

321.4.8 Occupant restrictions.

- 1. No smoking shall be permitted in the facility.
- 2. Candles, incense and similar open-flame-producing items shall not be allowed within the *sleeping units* or areas immediately adjacent to the *sleeping units*.
- 3. No temporary cooking equipment shall be permitted in the facility.
- <u>105.6.49 Temporary sleeping units for disaster relief workers</u> (mandatory permit). An operational permit is required for operation of long-term temporary *sleeping units* for disaster relief workers.
- **903.2.8 Group R.** An *automatic sprinkler system* installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R *fire area*, except as provided for in Section 903.2.8.5. **Exceptions:**
- 1. An *automatic sprinkler system* is not required in new adult and child day care facilities located in existing Group R-3 and R-4 occupancies.
- 2. An automatic sprinkler system is not required in temporary overflow shelters.
- 3. An *automatic sprinkler system* is not required in camping units located within a campground where all of the following conditions exist.
- 3.1. The camping unit is limited to one story in height.
- 3.2. The camping unit is less than 400 square feet (37 m2) in area.
- 3.3. The camping unit does not have a kitchen.
- 4. An automatic sprinkler system is not required in an open air camp cabin that complies with the following:
- 4.1. The *open air camp cabin* shall have at least two remote unimpeded exits. Lighted exit signs shall not be required.
- 4.2. The *open air camp cabin* shall not be required to have plumbing or electrical systems, but if the cabin has these systems, then the provisions of the code otherwise applicable to those systems shall apply.
- 4.3. Smoke alarms and portable fire extinguishers may be required as otherwise provided in the code.

- 5. An *automatic sprinkler system* is not required in the following Group R-3 buildings not more than three *stories above grade plane* in height with a separate *means of egress*:
- 5.1. Detached one- and two-family *dwellings*.
- 5.2. Attached one- and two-family *dwellings* separated with fire walls complying with Section 706 and containing no other occupancy classification.
- 6. Temporary *sleeping units* for disaster relief workers as allowed by Section 321.4.5.

The delayed effective date of this Rule is January 1, 2021.

The Statutory authority for Rule-making is G. S. 143-136; 143-138.

2018 NC Fire Code 905.3.1 Height. (190910 Item B-3)

905.3.1 Height. Class III standpipe systems shall be installed throughout buildings where the floor level of the highest story is located more than 30 feet (9144 mm) above the lowest level of the fire department vehicle access, or where the floor level of the lowest story is located more than 30 feet (9144 mm) below the heights level of fire department vehicle access. any of the following exist:

- 1. Four or more stories are above or below grade plane.
- 2. The floor level of the highest *story* is located more than 30 feet (9144 mm) above the lowest level of the fire department vehicle access.
- 3. The floor level of the lowest *story* is located more than 30 feet (9144 mm) below the highest level of fire department vehicle access.

Exceptions:

- 1. Class I standpipes are allowed in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.
- 2. Class I standpipes are allowed in Group B and E occupancies.
- 2 <u>3</u>. Class I manual standpipes are allowed in open parking garages where the highest floor is located not more than 150 feet (45720 mm) above the lowest level of fire department vehicle access.
- 3 <u>4</u>. Class I manual dry standpipes are allowed in open parking garages that are subject to freezing temperatures, provided that the hose connections are located as required for Class II standpipes in accordance with Section 905.5.
- 4-5. Class I standpipes are allowed in *basements* equipped throughout with an *automatic sprinkler system*.
- 6. Class I standpipes are allowed in buildings where occupant-use hose lines will not be utilized by trained personnel or the fire department.
- <u>5.7</u>. In determining the lowest level of fire department vehicle access, it shall not be required to consider either of the following:
- <u>5_7.1</u> Recessed loading docks for four vehicles or less.
- <u>5.7.2</u> Conditions where topography makes access from the fire department vehicle to the building impractical or impossible.

2018 NC Plumbing Code 718 Cured in Place Piping. (190910 Item B-13)

SECTION 718 CURED IN PLACE PIPING (CIPP)

718.1 General. This section shall govern the replacement, rehabilitation or repair of existing *building sewer* piping by cured in place piping methods.

718.2 Scope. Cured in Place Piping (CIPP) installations shall conform to the requirements of ASTM F1216 and be installed per the manufacturer's installation instructions.

CHAPTER 15 REFERENCED STANDARDS

ASTM STANDARDS

F1216-09 Standard for Cured in Place Piping (CIPP).....718.1, 718.2

2018 NC Plumbing Code 917.1.1 Engineered Single Stack Systems. (190910 Item B-11)

917.1.1 Engineered Single Stack Systems. Engineered single *stack* systems shall be listed in accordance to the standards of the specific material utilized in the system, designed by a *design* professional and installed in accordance with the manufacturer's installation instructions.

2018 NC Plumbing Code 1102.2 Inside storm drainage conductors. (190910 Item B-9)

1102.2 Inside storm drainage conductors. Inside storm drainage conductors installed above ground shall conform to one of the standards listed in Table 702.1.

Exception: Plastic pipe with an inside diameter of 2 inches and larger shall not be used for storm drainage conductors in buildings in which the top occupied floor exceeds 75 feet (23 m) in height

2018 NC Plumbing Code 1102.7 Fittings. (190910 Item B-11A)

1102.7 Fittings. Pipe fittings shall be *approved* for installation with the piping material installed, and shall conform to the respective pipe standards or one of the standards listed in Table 1102.7. The fittings shall not have ledges, shoulders or reductions capable of retarding or obstructing flow in the piping. Threaded drainage pipe fittings shall be of the recessed drainage type.

Exception: Plastic pipe fittings and plastic plumbing appurtenances with inside diameter of 2 inches and larger shall not be used for storm drainage conductors in buildings in which the top occupied floor exceeds 75 feet (23 m) in height.