

**FIRE INSPECTORS GUIDELINES FOR
PLAN REVIEWS AND INSPECTIONS OF
NEW CONSTRUCTION / ADDITIONS AND
CHANGE OF OCCUPANCY**

PLAN REVIEWS

SITE PLANS:

- 1) Access to buildings (Volume V NC Building Code sections 602.6.1 thru 602.6.6)
- 2) Fire hydrant locations (Volume V NC Building Code sections 603.1.1 thru 603.1.2)
- 3) Blocking/obstructing fire hydrants (Volume V NC Building Code section 602.5)
- 4) Street Numbers (Volume V NC Building Code section 603.17)
- 5) Fire Department connections (Volume V NC Building Code section 603.16.1- 603.16.2)
- 6) Detail information for any underground or above ground storage tanks (Ch.9 Volume V)
- 7) Any landscaping to be done, make sure will not interfere with any of the above requirements now or in the future.
- 8) Layout for all utilities

BUILDING PLANS:

- 1) Occupancy classification
- 2) Type of construction
- 3) Total square feet of building
- 4) Means of egress
- 5) Fire rated walls and doors
- 6) Stairways
- 7) Atriums
- 8) Interior finishes which include walls, floors, ceilings, etc.
- 9) Location of fire protection and life safety devices

ELECTRICAL:

- 1) Exit illuminations (Volume V sections 807.1.4 thru 807.3)
- 2) Emergency Lighting (Volume V sections 807.1.4 thru 807.3)
- 3) Back up power (Volume V 807.1.2)
- 4) Fire Alarm (Volume V 603.6.1 thru 603.7.6)
- 5) Wiring for sprinklers and fire pumps (Volume V 603.15.1 thru 603.15.7)
- 6) Special locking devices on exit doors
- 7) Penetrations in fire rated walls, floors, ceilings, etc. who will be doing the sealing

PLUMBING:

- 1) Penetrations in fire rated walls, floors, ceilings, etc. who will be doing the sealing
- 2) Utilities site plan
- 3) Sprinklers layout (hydraulics, design, water test)
- 4) Drains for oil and water (separations and collections for both)

MECHANICAL:

- 1) HVAC details (smoke detectors, duct detectors) remote indicators
- 2) Smoke removal systems
- 3) Boilers (wall related separation from other protection devices)

FIRE PROTECTION:

- 1) Fire hydrant locations
- 2) Fire department connections
- 3) Sprinkler systems
- 4) Fire alarm systems
- 5) Fixed suppression systems
- 6) Ventilation systems
- 7) Flammable/Combustible liquids & gas storage
- 8) Standpipe systems
- 9) Portable fire extinguishers placements and the number & size required

HAZARDOUS MATERIAL PRODUCTION or STORAGE:

- 1) Type & amount of chemicals to be used or stored
- 2) Fire protection systems needed
- 3) Type and size of storage tanks
- 4) Detail layout of the placement of tanks, racks or storage bins, or other areas products to be stored
- 5) Detail sketch of building and site (label too)

All the above areas must meet or exceed Volume V, and all Volumes of NC Building Codes that apply and all NFPA standards that are assorted with them.

Buildings under construction may be required to meet certain codes (see Volume V Chapter 6)

PRE-CERTIFICATE OF OCCUPANCY INSPECTION

to be done before final inspection

- 1) Do a walk through just before final inspection to see if there are any problems
- 2) Involve all trade inspectors and general contractor (s)
- 3) Detail what is expected in order to obtain a certificate of occupancy
- 4) Give general contractor (s) a copy of the final inspection checklist so there will be no questions at the final inspection.

FINAL INSPECTION

- 1) Conduct 100% acceptance test of all fire protection devices
- 2) Proper seal of all penetrations in all fire rated walls, floors and ceilings
- 3) Labeling of all fire rated walls, doors and partitions
- 4) Street numbers posted
- 5) Installation of all fire extinguishers
- 6) Approved locking devices on all exit doors
- 7) Illuminated exit signs in place and working
- 8) Emergency lighting in place and working
- 9) Marking of fire lanes
- 10) Access to fire hydrants and fire department connections
- 11) Occupancy capacity posted
- 12) Interior finish of approved material
- 13) Need a certificate of compliance of all fire protection systems that were installed (some examples are: fire alarm, sprinkler, standpipe, fixed suppression systems). **Will not sign off on CO until have this in hand. Certificate will state that all systems were installed according to all building codes and NFPA standards.**
- 14) Check all egress for compliance with the code
- 15) Breakers in panel boxes are label

FIRE INSPECTOR'S CHECKLIST FOR FINAL INSPECTION

1) Conduct 100% acceptance of the following:

<u>Systems to be Tested</u>	Passed / Fail / Particle Pass
a) fire alarm systems	_____
b) smoke detectors	_____
c) duct detectors	_____
d) smoke removal systems	_____
e) sprinklers systems	_____
f) standpipe systems	_____
g) ventilation systems	_____
h) fixed suppression systems	_____
i) fire extinguishing systems	_____
j) flame, fire-gas and other fire detectors	_____
k) have in hand a certificate of compliance for each	_____
2) Proper seal of all penetrations in all fire rated walls, floors, & ceilings	_____
3) Labeling of all rated walls, doors & partitions	_____
4) Street numbers posted	_____
5) Installation of all fire extinguishers	_____
6) Approved locking devices of all exit doors	_____
7) Illuminated Exit signs in place & working	_____
8) Emergency lighting in place & working	_____
9) Marking of Fire Lanes	_____
10) Access to fire hydrants and fire dept. connections	_____
11) Occupancy capacity posted	_____
12) Check all egress for compliance	_____
13) Breakers in all panel boxes are label	_____
14) Interior finish of approved materials	_____

HAZARDOUS MATERIALS PRODUCTION AND STORAGE SITES

- 1) Site plan
- 2) Floor plan
- 3) How materials will be handle
- 4) Monitoring program
- 5) Security systems
- 6) Labeling and warning signs
- 7) Loading and unloading sites
- 8) Cleaning areas on site
- 9) Utilities locations
- 10) Ground water issues
- 11) What property is next to site
- 12) What type and amounts of materials stored & will be stored on site
- 13) Storage areas (where product will be stored)
- 14) MSDS sheets needed
- 15) Employee training
- 16) Safety systems designs
- 17) Emergency response plans