

## **YORK COUNTY DEPARTMENT OF FIRE SAFETY BUILDING PLAN REVIEW REQUIREMENTS**

**The York County Department of Fire Safety reviews all commercial building plan submittals for compliance with the 2018 International Fire Code and referenced standards. The following is a list of common code requirements which should be shown on the plans, if applicable. (This should not be considered all of the requirements and any applicable section of the 2018 International Fire Code should be documented).**

### **Post Occupancy**

The 2018 International Fire Code, section 1004.9 requires every room or space that is an assembly occupancy to have the occupant load of the room or space posted in a conspicuous place, near the main exit or exit access doorway from the room or space, for the intended configurations. Posted signs shall be of an approved legible permanent design and shall be maintained by the owner or the owner's authorized agent.

### **Fire Alarm Plans**

The 2018 International Fire Code, section 907.1.2 requires shop drawings for fire alarm systems to be submitted for review and approval prior to system installation. Please submit fire alarm plans to this office for review and approval.

### **Fire Alarm System**

2016 NFPA 72 requires the following: Section 10.6.5.2.1 requires the location of the fire alarm branch circuit disconnecting means to be permanently identified at the control unit. Section 10.6.5.2.2 requires the system circuit disconnecting means to be permanently identified as to its purpose in accordance with the following: (1) "FIRE ALARM" for fire alarm systems (2) "EMERGENCY COMMUNICATIONS" for emergency communications systems (3) "FIRE ALARM/ECS" for combination fire alarm and emergency communications systems. Section 10.6.5.2.3 requires the fire alarm and/or signaling systems, circuit disconnecting means to have a red marking. Section 10.6.5.4 requires a listed breaker locking device to be installed. Section 10.6.10.1.1 requires batteries to be marked with the month and year of manufacture using the month/year format.

### **Fire Alarm Monitoring**

The 2018 International Fire Code, section 907.6.6 requires fire alarm systems required by this chapter or by the International Building Code to be monitored by an approved supervising station in accordance with NFPA 72.

The 2018 International Fire Code section 903.4 requires all valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and waterflow switches on all sprinkler systems to be electrically supervised by a listed fire alarm control unit. (monitored).

### **Knox Box**

The 2018 International Fire Code, section 506.1 requires where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the fire code official is authorized to require a key box to be installed in an approved location. The key box shall be of an approved type listed in accordance with UL 1037, and shall contain keys to gain necessary access as required by the fire code official. Please contact York County Department of Fire Safety at (803) 620-2270 for information regarding the required key box or order online at [www.knoxbox.com](http://www.knoxbox.com)

### **Exterior Emergency Lights**

The 2018 International Fire Code, section 1008.3.2(5) requires exterior emergency lighting to be installed immediately adjacent to exit discharge doorways.

### **Kitchen Hood / Suppression System**

The 2018 International Fire Code, section 607.2 requires a type I kitchen hood to be installed at or above all commercial cooking appliances and domestic cooking appliances used for commercial purposes that produce grease vapors.

The 2018 International Fire Code, section 904.2.2 states: Each required commercial kitchen exhaust hood and duct system required by Section 609 to have a Type I hood shall be protected with an approved automatic fire-extinguishing system installed in accordance with this code.

### **Ventilation System Interlock**

The 2018 International Mechanical Code, section 507.1.1 requires the exhaust fan serving a Type I hood to have automatic controls that will activate the fan when any appliance that requires such Type I Hood is turned on, or a means of interlock shall be provided that will prevent operation of such appliances when the exhaust fan is not turned on. Where one or more temperature or radiant energy sensors are used to activate a Type I hood exhaust fan, the fan shall activate not more than 15 minutes after the first appliance served by that hood has been turned on.

### **Fire Extinguishers**

The 2018 International Fire Code, section 906.2 requires fire extinguishers to be selected, installed and maintained in accordance with this section and NFPA 10.

### **Tactile Exit Signs**

The 2018 International Fire Code, section 1013.4 requires a sign stating EXIT in visual characters, raised characters and braille and complying with ICC A117.1 to be provided adjacent to each door to an area of refuge, an exterior area for assisted rescue, an exit stairway or ramp, an exit passageway and the exit discharge. Signs shall be placed on the wall, on the latch side of the door, 48 to 60 inches off of the floor.

### **Door Hardware**

The 2018 International Fire Code, section 1010.1.9.1 requires door handles, pulls, latches, locks and other operating devices on doors required to be accessible by Chapter 11 of the *International Building Code* to not require tight grasping, tight pinching or twisting of the wrist to operate.

The 2018 International Fire Code, section 1010.1.9.6 requires the unlatching of any exit door leaf to not require more than one operation.

### **Exit Doors**

The 2018 International Fire Code, section 1010.1.9 states: Except as specifically permitted by this section, egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort. IFC section 1010.1.9.1 states: Door handles, pulls, latches, locks and other operating devices on doors required to be accessible by Chapter 11 of the International Building Code shall not require tight grasping, tight pinching or twisting of the wrist to operate.

### **Panic Hardware**

The 2018 International Fire Code, section 1010.1.10 requires swinging doors serving rooms or spaces with an occupant load of 50 or more in a Group A or E occupancy to not be provided with a latch or lock other than panic hardware or fire exit hardware.

### **Flush Bolts**

The 2018 International Fire Code, section 1010.1.9.5 states: Manually operated flush bolts or surface bolts are not permitted. This includes the inactive leaf of a set of double doors. If the double door exit width is not required for exiting purposes, then the inside door hardware of the inactive leaf may be removed and the flush bolts can remain (effectively making the inactive leaf a window instead of an exit door).

### **Spray Booth**

The 2018 International Fire Code, section 2404.7.1 requires spraying equipment to be interlocked with the ventilation of the spraying area such that spraying operations cannot be conducted unless the ventilation system is in operation. (Air valve interlock is required)

### **Identification of Rooms**

The 2018 International Fire Code, section 509.1 requires fire protection equipment to be identified in an approved manner. Rooms containing controls for air-conditioning systems, sprinkler risers and valves, or other fire detection, suppression or control elements shall be identified for the use of the fire department. Approved signs required to identify fire protection equipment and equipment location, shall be constructed of durable materials, permanently installed and readily visible.

The 2018 International Fire Code, section 604.3.1 requires doors into electrical control panel rooms to be marked with a plainly visible and legible sign stating ELECTRICAL ROOM or similar approved wording.

The 2018 International Fire Code, Section 5003.5 requires visible hazard identification signs as specified in NFPA 704 for the specific material contained to be placed on stationary containers and above-ground tanks and at entrances to locations where hazardous materials are stored, dispensed, used or handled in quantities requiring a permit and at specific entrances and locations designated by the fire code official. Pool chemical room shall be labeled with appropriate NFPA 704 signage.

The 2018 International Building Code, section 703.7 requires where there is an accessible concealed floor, floor-ceiling or attic space, fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions or any other wall required to have protected openings or penetrations to be effectively and permanently identified with signs or stenciling in the concealed space. Such identification shall: 1. Be located within 15 feet (4572 mm) of the end of each wall and at intervals not exceeding 30 feet (9144 mm) measured horizontally along the wall or partition.

2. Include lettering not less than 3 inches (76 mm) in height with a minimum 3/8-inch (9.5 mm) stroke in a contrasting color incorporating the suggested wording, "FIRE AND/OR SMOKE BARRIER—PROTECT ALL OPENINGS," or other wording.

### **Fire Shutters**

The 2018 International Building Code, section 716.1 requires fire door and fire shutter assemblies to be installed in accordance with NFPA 80. (2016) NFPA 80, section 13.2.2. requires the sill for rated service counter fire doors to meet the requirements of section 4.8.2 which requires the sill to be of non-combustible materials. NFPA 80, section 13.3 requires, where counters are supplied separately from the balance of the shutter assemblies, they shall be labeled and installed in accordance with their listing.

### **Daycare/Healthcare**

If the proposed facility is to be licensed or regulated by the state of South Carolina, plans and specifications shall be submitted to the regulatory authority for their review and approval.

### **High Piled Combustible Storage**

The 2018 International Fire Code, chapter 2 defines "High Piled Combustible Storage" as: Storage of combustible materials in closely packed piles or combustible materials on pallets, in racks or on shelves where the top of storage is greater than 12 feet (3658 mm) in height. Where required by the fire code official, high-piled combustible storage also includes certain high-hazard commodities, such as rubber tires, Group A plastics, flammable liquids, idle pallets and similar commodities, where the top of storage is greater than 6 feet (1829 mm) in height. No "High Piled Combustible Storage" is allowed for this project unless meeting the requirement of the 2018 International Fire Code, Table 3206.2.

### **Sprinklers**

The South Carolina Fire Protection Sprinkler Systems Act, Section 40-10-260 (A) requires that sprinkler system shop drawings must be prepared for every fire protection sprinkler system to be installed in South Carolina. Shop drawings along with any specification sheets must be submitted to the local authority having jurisdiction (York County Dept. of Fire Safety) for review and approval.

The South Carolina Fire Protection Sprinkler Systems Act, section 40-10-250, requires that a "Fire Sprinkler System Specification Sheet", approved by the State Fire Marshal, be completed for every fire protection sprinkler system to be installed in South Carolina. This specification sheet must be submitted to the local authority having jurisdiction (York County Dept. of Fire Safety) for review and approval.

The South Carolina Fire Protection Sprinkler Act, section 40-10-260 (D), requires that a "Certificate of Compliance" certifying that the fire protection sprinkler system was designed and installed in accordance with the "Fire Sprinkler Specification Sheet" must be delivered to the local authority having jurisdiction (York County Dept. of Fire Safety).

South Carolina State Law 40-10-250 section C requires, when applying for building permits or other required permits, the Fire Sprinkler System Specification Sheet completed in accordance with subsections (A) and (B) must be made part of the bid documents and must be submitted to the authority having jurisdiction (York County Dept. of Fire Safety), along with the architectural or engineering, or both, drawings and specifications. The completed Fire Sprinkler System Specification Sheet must

accompany the shop drawings when they are submitted for review. The Fire Sprinkler Specification Sheet and drawings must be submitted prior to permits being issued.

**Sprinkler Earthquake Protection**

NFPA 13 (2016), section 9.3.1 requires sprinkler systems to be protected against earthquake damage. Please provide details on earthquake protection.

If further information is needed regarding this portion of the plan review, please call The York County Department of Fire Safety at 803-620-2270.