

**CITY OF ROWLETT**  
**INTERNATIONAL FIRE CODE AMENDMENTS**  
**2015 ED.**

***Section 101 is amended by changing 101.1 to read as follows; and adding section 101.6 Limitation of Enforcement:***

**101.1 Title.** These regulations shall be known as the Fire Code of the City of Rowlett, hereinafter referred to as "this code".

**101.6 Limitation of Enforcement.** Nothing within this code shall be construed as limiting the application and enforcement of this code in areas within and beyond the City's jurisdictional limits as may be allowed by local, state, or federal laws, ordinances, or codes.

***Section 103.1; change to read as follows:***

**103.1 General** The department of fire prevention is established within the jurisdiction under the direction of the *fire code official*. The function of the department shall be the implementation, administration and enforcement of the provisions of this code. Any reference to Fire Marshal or Fire Chief shall mean the *fire code official*.

***Section 102.1; change #3 to read as follows:***

3. Existing structures, facilities, and conditions when required in Chapter 11 or in specific sections of this code.

***Section 105.3.3; change to read as follows:***

**105.3.3 Occupancy Prohibited before Approval.** The building or structure shall not be occupied prior to the fire code official issuing a permit when required and conducting associated inspections

indicating the applicable provisions of this code have been met.

***Section 105.7; add Section 105.7.19 to read as follows:***

**105.7.19 Electronic access control systems.** Construction permits are required for the installation or modification of an electronic access control system, as specified in Chapter 10. A separate construction permit is required for the installation or modification of a fire alarm system that may be connected to the access control system. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

***Section 105.7; Section 105.7.20 is added to read as follows:***

**Sec. 26.105 New materials, processes or occupancies which may require a permit.** The city manager, the fire chief and the fire marshal may act as a committee to determine and specify, after giving affected persons an opportunity to be heard, any new materials, processes or occupancies not addressed by this code which will require permits, in addition to those described in the fire prevention code. The fire marshal will post a list of any permit requirements in a conspicuous place in his office and distribute copies to interested persons.

***Section 108.1 is amended to read as follows:***

**108.1. Construction board of adjustments and appeals.** The construction board of adjustments and appeals will hear and decide appeals of orders, decisions or determinations made by the fire code official relative to the application and interpretation of this code.

***Section 108.3 is deleted.***

***Section 109.4 is amended to read as follows:***

**109.4 Violation Penalties.** Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a misdemeanor, punishable by a fine of not more than \$2000 dollars. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

***Section 109.4. is hereby amended by adding a new Section 109.4.2 to read as follows:***

**109.4.2 Applicability.** A person, firm, partnership, corporation, association, or other entity shall be presumed to be the violator if the person, firm, partnership, corporation, association, or other entity is the owner or occupant of the subject property, exercises actual or apparent control over the subject property, or is listed as the water customer of the city for the subject property.

***Section 111.4 is amended to read as follows:***

111.4. Failure to comply. Any person who continues work after having been served with a stop work order, except such work the fire code official has directed to be performed to remedy a violation or unsafe condition, shall be liable for a fine not less than \$500.00 or more than \$2,000. Each day that a violation continues after notice of violation has been served shall be deemed a separate offense.

***The following definitions in Section 202 are amended to read as follows:***

**[B] AMBULATORY CARE FACILITY.** Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing, or similar care on a less than 24-hour basis to persons who are rendered incapable of self-preservation by the services provided. This group may include but not be limited to the following:

- Dialysis centers
- Procedures involving sedation
- Sedation dentistry
- Surgery centers
- Colonic centers
- Psychiatric centers

**ATRIUM.** An opening connecting three or more stories other than enclosed stairways, elevators, hoistways, escalators, plumbing, electrical, air-conditioning or other equipment, which is closed at the top and not defined as a mall. Stories, as used in this definition, do not include balconies within assembly groups or mezzanines that comply with Section 505 of the International Building Code.

**DEFEND IN PLACE.** A method of emergency response that engages building components and trained staff to provide occupant safety during an emergency. Emergency response involves remaining in place, relocating within the building, or both, without evacuating the building.

**FIRE CODE OFFICIAL** The fire marshal or a duly authorized representative.

**FIRE WATCH.** A temporary measure intended to ensure continuous and systematic surveillance of a building or portion thereof by one or more qualified individuals or standby personnel when required by the *fire code official*, for the purposes of identifying and controlling fire hazards, detecting early signs of unwanted fire, raising an alarm of fire and notifying the fire department.

**FIREWORKS.** Any composition or device for the purpose of producing a visible or an audible effect for entertainment purposes by combustion, *deflagration*, ~~or~~ *detonation*, and/or activated by ignition with a match or other heat producing device that meets the definition of 1.4G fireworks or 1.3G fireworks as set forth herein.

**Fireworks, 1.4G.** Small fireworks devices containing restricted amounts of pyrotechnic composition designed primarily to produce visible or audible effects by combustion. Such 1.4G fireworks which comply with the construction, chemical composition and labeling regulations of the DOTn for Fireworks, UN 0336, and the U.S. Consumer Product Safety Commission as set forth in CPSC 16 CFR Parts 1500 and 1507, are not explosive materials for the purpose of this code.

**Fireworks, 1.3G.** Large fireworks devices, which are explosive materials, intended for use in fireworks displays and designed to produce audible or visible effects by combustion, deflagration or detonation. Such 1.3G fireworks include, but are not limited to, firecrackers containing more than 130 milligrams (2 grains) of explosive composition, aerial shells containing more than 40 grams of pyrotechnic composition and other display pieces which exceed the limits for classification as 1.4G fireworks. Such 1.3G fireworks are also described as Fireworks, UN 0335 by the DOT.

**HIGH PILED COMBUSTIBLE STORAGE** add a second paragraph to read as follows:

Any building classified as a group S Occupancy or Speculative Building exceeding 5,000 sq. ft. that has a clear height in excess of 14 feet, making it possible to be used for storage in excess of 12 feet, shall be considered to be high-piled storage. When a specific product cannot be identified, a fire protection system and life safety features shall be installed as for Class IV commodities, to the maximum pile height.

**HIGH RISE BUILDING.** A building with an occupied floor located more than 55 feet (16 764 mm) above the lowest level of fire department vehicle access.

**REPAIR GARAGE.** A building, structure or portion thereof used for servicing or repairing motor vehicles. This occupancy shall also include garages involved in minor repair, modification and

servicing of motor vehicles for items such as lube changes, inspections, windshield repair or replacement, shocks, minor part replacement, and other such minor repairs.

**SELF-SERVICE STORAGE FACILITY.** Real property designed and used for the purpose of renting or leasing individual storage spaces to customers for the purpose of storing and removing personal property on a self-service basis.

**STANDBY PERSONNEL.** Qualified fire service personnel, approved by the Fire Chief. When utilized, the number required shall be as directed by the Fire Chief. Charges for utilization shall be as normally calculated by the jurisdiction.

**UPGRADED OR REPLACED FIRE ALARM SYSTEM.** A fire alarm system that is upgraded or replaced includes, but is not limited to the following:

- Replacing one single board or fire alarm control unit component with a newer model
- Installing a new fire alarm control unit in addition to or in place of an existing one
- Conversion from a horn system to an emergency voice/alarm communication system
- Conversion from a conventional system to one that utilizes addressable or analog devices

The following are not considered an upgrade or replacement:

- Firmware updates
- Software updates
- Replacing boards of the same model with chips utilizing the same or newer firmware

**307.1.1 Prohibited Open Burning.** Open burning that is offensive or objectionable because of smoke emissions or when atmospheric conditions or local circumstances make such fires hazardous shall be prohibited. Burning of refuse, debris and yard waste in the city limits is prohibited. All containers, pits, fireplaces or appliances used for open burning must be approved.

***Section 307.2; change to read as follows:***

**307.2 Permit Required.** A permit shall be obtained from the *fire code official* in accordance with Section 105.6 prior to kindling a fire for recognized silvicultural or range or wildlife management practices, prevention or control of disease or pests, or open burning. Application for such approval shall only be presented by and permits issued to the owner of the land upon which the fire is to

be kindled.

Examples of state or local law, or regulations referenced elsewhere in this section may include but not be limited to the following:

1. Texas Commission on Environmental Quality (TCEQ) guidelines and/or restrictions.
2. State, County, or Local temporary or permanent bans on open burning.
3. Local written policies as established by the *fire code official*.

**307.3 Extinguishment Authority.** The fire code official is authorized to order the extinguishment by the permit holder, or any person responsible for any fire or open burning, that creates or adds to a hazardous or objectionable situation.

***Section 307.4; change to read as follows:***

**307.4 Location.** The location for open burning shall not be less than 300 feet (91 440 mm) from any structure, and provisions shall be made to prevent the fire from spreading to within 300 feet (91 440 mm) of any structure.

***Section 307.4.1 is deleted.***

***Section 307.4.2 is deleted.***

***Section 307.4.3; change to read as follows:***

**307.4.3 Portable Outdoor Fireplaces.** Portable outdoor fireplaces shall be used in accordance with the manufacturer's instructions and shall not be operated within 15 feet (3048 mm) of a structure or combustible material. Portable outdoor fireplaces are prohibited in multifamily uses and townhomes that are attached with three or more family units or separate family units more than one story.

Exception: Portable outdoor fireplaces used at one-and two-family *dwelling*s.

**Section 307.4.3, Exceptions: add exception #2 to read as follows:**

**Section 307.4.4 and 5; add section 307.4.4 and 307.4.5 to read as follows:**

**307.4.4 Permanent Outdoor Firepit.** Permanently installed outdoor firepits for recreational fire purposes shall not be installed within (10) ten feet of a structure or combustible material.

**Exception:** Permanently installed outdoor fireplaces constructed in accordance with the International Building Code.

**307.4.5 Trench Burns.** Trench burns shall be conducted in air curtain trenches and in accordance with Section 307.2.

**Section 307.5; change to read as follows:**

**307.5 Attendance.** Open burning, trench burns, bonfires, *recreational fires*, and use of portable outdoor fireplaces shall be constantly attended until the fire is extinguished. A minimum of one portable fire extinguisher complying with Section 906 with a minimum 4-A rating or other *approved* on-site fire-extinguishing equipment, such as dirt, sand, water barrel, garden hose or water truck, shall be available for immediate utilization.

**Section 308.1.4; change to read as follows:**

**308.1.4 Outdoor cooking.** It is unlawful to use, or to store, a charcoal burner, open flame, LP gas burner, outdoor grill, barbecue, or other outdoor cooking appliance with open flame or heat producing element on the premises of a residential building with three or more attached family dwelling units, or separate family dwelling units two or more stories; or of any multifamily residential building. The provision does not apply to the use of permanently mounted outdoor cooking devices located (10) ten or more feet from any structure.

**Exceptions:**

1. One- and two-family dwellings, except that LP-gas containers are limited to a water capacity not greater than 50 pounds (22.68 kg) [nominal 20 pound (9.08 kg) LP-gas capacity] with an aggregate LP-gas capacity not to exceed 100 lbs (5 containers).

***Section 308.1.5; amended to read as follows:***

**308.1.5 Location Near Combustibles.** Open flames such as from candles, lanterns, kerosene heaters and gas-fired heaters shall not be located on or near decorative material or similar combustible materials. In no case are heaters, open flame devices, or heating electrical elements permitted on balconies of multifamily units.

***Section 308.1.6.2, Exception #3; change to read as follows:***

**Exceptions:**

1. Torches or flame-producing devices in accordance with Section 308.1.3.

***Section 308.1.6.3; change to read as follows:***

**308.1.6.3 Sky Lanterns.** A person shall not release or cause to be released unmanned free-floating devices containing an open flame or other heat source, such as but not limited to a sky lantern.

***Section 311.5; change to read as follows:***

**311.5 Placards.** The *fire code official* is authorized to require marking of any vacant or abandoned buildings or structures determined to be unsafe pursuant to Section 110 of this code relating to structural or interior hazards, as required by Section 311.5.1 through 311.5.5.



**Section 319 General Requirements is added**

**Section 319.1 – 319.2 is added to read as follows:**

**Section 319.1 is added to read as follows:**

**319.1 Motor vehicle parking.** It is unlawful for a person to store, park or stand a motor vehicle inside a residential unit, a storage facility attached to a residential unit or a stairwell or under a stairway or a balcony, on premises of a multifamily dwelling unless designed for that purpose.

**Section 319.2 is added to read as follows:**

**319.2 EMS Elevators.** Where elevators are provided in buildings, not fewer than one elevator shall be provided for fire department emergency access to all floors. The elevator car shall be of such size and arrangement to accommodate an ambulance stretcher 24 inches by 84 inches with not less than 5-inch radius corners, in the horizontal, open position and shall be identified by the international symbol for emergency medical services (star of life). The symbol shall be not less than 3 inches in height and shall be placed inside on both sides of the hoist way door frame.

*Exception :* When allowed by the *Fire Code Official*, an EMS elevator shall not be required for buildings less than 4 stories.

**Section 320 Hazardous Materials Spills is added**

**Section 320.1 – 320.2 is added to read as follows:**

**320.1 Establishment of motor vehicle routes for transportation of hazardous chemicals.** The U.S. Department of Transportation regulations referenced in chapter 27 and chapter of the fire code shall be followed, except that tank vehicles transporting hazardous chemicals to local businesses may take the shortest route to the business served.

**320.2 Hazardous materials spills.** Any person who causes, or permits a release or spill of hazardous material affecting property within the city, or its extraterritorial jurisdiction, shall be responsible for the abatement, control, capture and proper disposal of such hazardous material and for all associated costs incurred by the fire department and other city departments and agencies that assist to abate the release or spill.

1. The abatement activities shall be under the direction and control of the fire chief or his authorized representative. The fire chief may relinquish his direction and control to another agency, firm or other licensed party for the purposes of extended operations, remediation, control, capture or proper disposal of the hazardous materials. The fire chief can reinstate his direction and control at any point in order to protect the health and welfare of persons or property or to expedite the abatement, control, capture or proper disposal of the hazardous material and/or any by-products thereof. It is unlawful for any

person to fail to obey an order given by the fire chief at the scene of a hazardous material release or spill.

2. For purposes of this section, costs incurred by the fire department or other departments of the city shall include, but shall not be limited to, all expenses attributable to the cleanup or abatement of any hazardous materials incident, including costs of equipment operations, materials utilized, specialists, experts, contract labor, overtime costs, costs incurred by area fire departments requested through mutual aid agreement with the city, and any other incidental costs of the city as a result of the incident. Costs do not include fire suppression, rescue, medical treatment and similar services which are within the scope of fire department duties.

3. Cost recovery shall be in the manner and form designated by the fire department. Any individual, agency, corporation, firm, or party who fails to respond within ten days to a certified notice of collection under this section is in violation of this section.

4. Any violation of this section punishable by a fine of at least \$1,000.00.

5. The remedies provided by this section is in addition to any other remedies provided by law. Nothing in this section prohibits the city from pursuing other legal actions to recover the costs of abatement.

***Section 401.5; amend to read as follows:***

**401.5 Making false alarm or report.** A person shall not give, signal or transmit a false alarm or report.

***Section 403.5; change Section 403.5 to read as follows:***

**403.5 Group E Occupancies.** An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group E occupancies and for buildings containing both a Group E occupancy and an atrium. A diagram depicting two evacuation routes shall be posted in a conspicuous location in each classroom. Group E occupancies shall also comply with Sections 403.5.1 through 403.5.3.

***Section 403.12.2; is amended by adding 10 and 11 to the list of requirements and the following paragraphs:***

**403.12.2 (10.)** The need for additional bathroom facilities and parking plans. **(11.)** The need for other specific requirements as prescribed by the fire official.

The public safety plan, as described in 403.12.2 and approved by the fire official, shall be complied with and is enforceable under provisions of this code. Any public assembly held or is

advertised to be held that fails to obtain a permit under this section is in violation of this section. Any violation of the plan shall be punishable by a fine of at least \$500.00.

Permits issued under this section have the same force and applicability as outlined in Chapter 52 Special Events of the Rowlett Code of Ordinances. However, recurring events, events held solely on private property, and events with low expected attendance shall not require a meeting by the special event review committee under section 52-5 (b), but only as needed.

**Section 404.2.2; add Number 4.10 to read as follows:**

4.10 Fire extinguishing system controls.

**Section 405.4; change Section 405.4 to read as follows:**

**405.4 Time.** The fire code official may require an evacuation drill at any time. Drills shall be held at unexpected times and under varying conditions to simulate the unusual conditions that occur in case of fire.

**Section 501.4; change to read as follows:**

**501.4 Timing of Installation.** When fire apparatus access roads or a water supply for fire protection is required to be installed for any structure or development, they shall be installed, tested, and approved prior to the time of which construction has progressed beyond completion of the foundation of any structure.

**Section 503.1.1; add sentence to read as follows:**

Except for one- or two-family dwellings, the path of measurement shall be along a minimum of a ten feet (10') wide unobstructed pathway around the external walls of the structure.

**Section 503.2.1; change to read as follows:**

**503.2.1 Dimensions.** Fire apparatus access roads shall have an unobstructed width of not less than 24 feet (7315 mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 14 feet (4267 mm).

**Exception:** Vertical clearance may be reduced; provided such reduction does not impair access by fire apparatus and *approved* signs are installed and maintained indicating the established vertical clearance when approved.

**Section 503.2.2; change to read as follows:**

**503.2.2 Authority.** The *fire code official* shall have the authority to require an increase in the minimum access widths and vertical clearances where they are inadequate for fire or rescue operations.

**Section 503.2.3; change Section 503.2.3 to read as follows:**

**503.2.3 Surface.** Fire apparatus access roads shall be designed and maintained to support imposed loads of 80,000 Lbs for fire apparatus and shall be surfaced so as to provide all-weather driving capabilities.

**Section 503.3; change to read as follows:**

**503.3 Marking.** Striping, signs, or other markings, when approved by the *fire code official*, shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. Striping, signs and other markings shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.

**(1) Striping** – Fire apparatus access roads shall be continuously marked by painted lines of red traffic paint six inches (6”) in width to show the boundaries of the lane. The words “NO PARKING FIRE LANE” or “FIRE LANE NO PARKING” shall appear in four inch (4”) white letters at 25 foot intervals on the red border markings along both sides of the fire lanes. Where a curb is available, the striping shall be on the vertical face of the curb.

**(2) Signs** – Signs shall read “NO PARKING FIRE LANE” or “FIRE LANE NO PARKING” and shall be 12” wide and 18” high. Signs shall be painted on a white background with letters and borders in red, using not less than 2” lettering. Signs shall be permanently affixed to a stationary post and the bottom of the sign shall be six feet, six inches (6’6”) above finished grade. Signs shall be spaced not more than fifty feet (50’) apart along both sides of the fire lane. Signs may be installed on permanent buildings or walls or as approved by the Fire Chief.

***Section 503.4; change to read as follows:***

**503.4 Obstruction of Fire Apparatus Access Roads.** Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in Section 503.2.1 and any area marked as a fire lane as described in Section 503.3 shall be maintained at all times.

***Section 505.1; change to read as follows:***

**505.1 Address Identification.** New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 6 inches (152.4 mm) high with a minimum stroke width of 1/2 inch (12.7 mm). Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road, buildings do not immediately front a street, and/or the building cannot be viewed from the public way, a monument, pole or other sign with approved 6 inch (152.4 mm) height building numerals or addresses and 4 inch (101.6 mm) height suite/apartment numerals of a color contrasting with the background of the building or other approved means shall be used to identify the structure. Numerals or addresses shall be posted on a minimum 20 inch (508 mm) by 30 inch (762 mm) background on border. Address identification shall be maintained.

**Exception:** R-3 Single Family occupancies shall have approved numerals of a minimum 3 ½ inches (88.9 mm) in height and a color contrasting with the background clearly visible and legible from the street fronting the property and rear alleyway where such alleyway exists.

**Section 505.3 is hereby added to read as follows:**

**505.3 Wayfaring Sign.** A wayfaring sign shall be provided for all new and existing multi building developments in which multiple buildings are addressed off a single address, such as in an apartment complex, or when the nature and arrangement of the buildings, such signage would be conducive to navigation. Such signs shall be placed at all points of entry into the development, or as required by the *Fire Code Official*.

The wayfaring sign shall meet the below minimum requirements:

1. Provide a simplified Site Plan layout of the development or property.
2. Shall indicate all entry and exit points.
3. Shall be a minimum 36-inch by 36-inch.
4. Shall be provided with lighting or reflective sheeting.
5. Shall be permanently mounted.
6. Shall indicate major building and/or address numbers.
7. Shall indicate the developments name and address.

**Section 507.4; change to read as follows:**

**507.4 Water Supply Test Date and Information.** The water supply test used for hydraulic calculation of fire protection systems shall be conducted in accordance with NFPA 291 “Recommended Practice for Fire Flow Testing and Marking of Hydrants” and within one year of sprinkler plan submittal. The *fire code official* shall be notified prior to the water supply test. Water supply tests shall be witnessed by the *fire code official*, as required. The exact location of the static/residual hydrant and the flow hydrant shall be indicated on the design drawings. All fire protection plan submittals shall be accompanied by a hard copy of the waterflow test report, or as approved by the *fire code official*. The report must indicate the dominant water tank level at the time of the test and the maximum and minimum operating levels of the tank, as well, or identify applicable water supply fluctuation. The licensed contractor must then design the fire protection system based on this fluctuation information, as per the applicable referenced NFPA standard. Reference Section 903.3.5 for additional design requirements.

**Section 507.5.4; change to read as follows:**

**507.5.4 Obstruction.** Unobstructed access to fire hydrants shall be maintained at all times. Posts, fences, vehicles, growth, trash, storage and other materials or objects shall not be placed or kept near fire hydrants, fire department inlet connections or fire protection system control valves in a

manner that would prevent such equipment or fire hydrants from being immediately discernible. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants.

**Section 507 is amended by adding the following:**

**507.5.7. Marking.** The location of all fire hydrants shall be identified with a blue reflective road dot placed near the center of the roadway in front of the hydrant.

**Section 509.1.2; add new Section 509.1.2 to read as follows:**

**509.1.2 Sign Requirements.** Unless more stringent requirements apply, lettering for signs required by this section shall have a minimum height of 2 inches (50.8 mm) when located inside a building and 4 inches (101.6 mm) when located outside, or as approved by the *fire code official*. The letters shall be of a color that contrasts with the background.

**A new Section 511; entitled "Fire Protection & Building Signage" is hereby adopted to read as follows:**

SECTION 511  
FIRE PROTECTION & BUILDING SIGNAGE

**511.1 Scope.** The provisions of this chapter shall apply to the installation of directional, equipment and fire protection signage.

**511.2 Requirements.** All buildings and structures provided with an *approved* fire protection system, hazardous materials, high piled storage, fire department access or required by other provisions of this code or the *Fire Code Official*, shall be provided with signage in the locations set forth in Sections 512.4 through 512.12 and shall be approved by the *Fire Code Official* prior to installation.

*Exception*. This section shall not require existing buildings to be provided with the required signage unless the building is renovated, altered or as otherwise required by the *Fire Code Official* or other provisions of this code.

**511.3 Sign Specifications.** All signs required by this section shall be in accordance with the following specifications, unless otherwise noted:

1. Minimum size of 12 in. x 12 in.
2. Constructed of a minimum 0.080 aluminum sheet with a minimum 0.75 radius corners.

3. Font style shall be Arial, with all letters capitalized, minimum 3 in. lettering and ½ in. width.
4. Sign face shall be traffic red.
5. Lettering and/or graphics shall be white and reflective.

*Exceptions:* The Fire Code Official may approve alternate methods and material.

**511.4 Fire Department Connection.** All buildings provided with an *approved* automatic fire sprinkler system or standpipe requiring a Fire Department Connection (FDC), shall indicate the location of the FDC with appropriate signage as follows:

1. Building and structures in which multiple FDCs will be located within the same subdivision, shall also indicate numerical address, suite numbers served or other description as approved by the *Fire Code Official*.
2. When multiple FDCs are provided at a common location to serve different types of fire protection systems, the sign shall further indicate the type of fire protection system served.
3. Where the FDC does not serve the entire building, a sign shall be provided indicating the portions of the building served.

**511.4.1 Wall Mounted FDC.** Wall mounted FDCs shall have a sign mounted 7 feet above grade directly over the FDC.

*Exception* If the FDC is located such that it may be difficult to readily locate, the inclusion of a directional arrow or additional signage may be required.

**511.4.2 Remote Mounted FDC.** For fire protection systems supplied by a remotely located FDC, a sign shall be permanently mounted as following:

1. Sign shall be located directly adjacent to the FDC.
2. Shall be mounted on a sign post that extends a minimum of 6 feet above grade.
3. The numerical street number shall be included.

**511.4.3 FDC Protection.** All FDC's shall have an 8-in. x 12 in. sign that reads "DO NOT BLOCK - BY ORDER OF THE FIRE MARSHAL" placed directly over the FDC.



**511.5 Fire Protection Equipment Rooms.** Room containing fire sprinkler riser assemblies and control equipment shall be identified with a 12-in. x 12 in. sign that reads "RISER ROOM STORAGE PROHIBITED". In the fire alarm system control panel and/or other fire protection equipment is located within the same room, the sign shall include lettering identifying all equipment located therein.

**511.5.1. Multiple Riser Identification.** When multiple risers are located within the same room, or in different locations within the same building, signs shall be provided to indicate the zone or floor served by the riser assembly, or the type of system serving the zone or floor. Signs shall be 8 in. x 8 in. with 2 in. lettering.

**511.6 Fire Pump Test Header.** When a fire pump is provided as part of the fire protection system, a sign shall be provided to differentiate the test header from other equipment. Signs shall be a minimum 8 in. x 6 in. with 2 in. lettering that reads "FIRE PUMP TEST HEADER"

**511.7 Roof Access.** For buildings and structures where roof access is not provided from the exterior of the building, a sign shall be provided on the door or room containing the access point. Sign shall be 8 in. x 6 in. with 2 in. lettering that reads "ROOF ACCESS".

**511.8 Wall & Post Indicator Valves.** When a Wall or Post Indicator Valve (PIV) is provided as part of the fire protection system, signs shall be provided to indicate the riser and/or zone controlled by the valve. Signs shall be located directly adjacent to the control valve and shall be either mounted on a sign post or affixed to the exterior of the building.

**511.9 Fire Department Access.** In the event that fire department access is so located in an area that is not readily identifiable, or as required by the *Fire Code Official*, signs shall be provided and located as directed by this section or the *Fire Code Official*.

**511.9.1 Access Gates.** When pedestrian access gates are provided, or otherwise required, in order to provide access to a building or facility, a minimum 8 in. x 6 in. sign shall be provided on the gate that reads "F.D. ACCESS".

**511.9.2 Automatic Access Gates.** When automatic or manual access gates are provided across a fire lane or entry/egress points to a residential subdivision, or otherwise required, in order to provide access to a building, facility or residential subdivision, a minimum 8 in. x 6 in. sign shall be provided on the gate that reads "F.D. ACCESS".

**511.9.3 Emergency Access Easements.** When automatic or manual access gates are provided across an emergency access easement or fire lane to a residential subdivision, or otherwise required a minimum 8 in. x 6 in. sign shall be provided on the gate that reads "F.D. ACCESS".

**511.10 Hazardous Materials.** When required by other sections of the *Fire Code*, or the *Fire Code Official*, an NFPA 704 diamond shall be posted at a location on the premise as approved by the *Fire Code Official*. The entire sign shall be made of a reflective material

*Exception.* Construction requirements of this section shall not apply, with the exception the sign must be reflective and a minimum of 12 in. x 12 in.

**511.11 High-Piled Storage.** When high piled combustible storage, in accordance with Chapter 23, is present within a building or structure, marking shall be provided as set forth in Section 511.11.1 through 511.11.3.

**511.11.1 Striping.** A 6-in. wide traffic red strip with 4 in. white lettering, OR 6 in. yellow strip with black lettering shall be provided in all areas in which storage exceeds 12 ft., or as required by the *Fire Code Official*, around the perimeter of the designed storage area. The top of the strip shall indicate the maximum storage height, and shall read as follows "NO STORAGE PERMITTED ABOVE THIS LINE" at 25 ft. intervals.

*Exception.* When permitted by the *Fire Code Official*, 6 in. wide red or yellow striping with no text may be allowed on the rack structures for non-publicly accessible areas where permanent signs are provided along the walls and racks per Section 511.11.2.

**511.11.2 Signs.** Permanent signs shall be placed on the ends of alternative racks to indicate "MAX. STORAGE HEIGHT XX FEET" and "NO STORAGE ABOVE THIS SIGN", for racks and areas in which a wall is not adjacent to the storage array. Signs shall be 12 in. x 12 in. with 2 in. lettering.

**511.12 Flammable and Combustible Liquids.** When required by this section or other sections of the *Fire Code*, signs shall be provided as follows to identify the content of the material stored or used. Signs shall be 8 in. x 8 in. with 2 in. lettering.

**511.13 Fire Command Room.** When a fire command room is provided, an 8-in. x 8 in. sign with 2 in. lettering shall be provided to read "FIRE COMMAND ROOM".

**511.14 Electrical Room.** When an interior electrical room is provided, an 8 in. x 8 in. sign with 2 in. lettering shall be provided to read "ELECTRICAL ROOM".

**511.15 Fire Alarm Control Panel.** When the main fire alarm control panel is not located within the riser room, fire command room, or at the main entrance, an 8-in. x 8 in. sign with 2 in. lettering shall be provided to read "FIRE ALARM PANEL LOCATED IN \_\_\_\_\_".

**511.15.1 Supplementary Signs.** When supplementary fire alarm system control panels, such as power supplies, special hazards or similar is provided, 8 in. x 8 in. sign with 2 in. lettering shall be provided to read "FIRE ALARM PANEL WITHIN" shall be provided on the entry door.

**511.16 Mechanical Room.** When an interior mechanical room is provided, an 8 in. x 8 in. sign with 2 in. lettering shall be provided to read "MECHANICAL ROOM".

**511.17 Miscellaneous Signs.** Whenever a sign not specifically outlined in this section is required by the *Fire Code Official*, it shall be constructed in accordance with this section.

**511.18. Utility Identification.** Approved numerals of minimum one-inch (1") height and of a color contrasting with the background shall be placed on gas and electrical meters serving all new and existing buildings or structures except R-3 occupancies.

**511.19 Stairwell Identification.** Stairwell identification signs shall be provided in buildings that are four (4) or more stories in height, or as required by this section. The signs shall be installed in stairways to identify each stair landing and indicate the upper and lower termination of the stairway. Signs within the stairways shall be located above the floor landing in a position that is readily visible when the door is in the open or closed position. Stairway identification signs shall indicate the numerical and/or location of the stair in a minimum 2-inch lettering and shall be constructed in accordance with Section 511.3.

*Exception.* For signs located within a high-rise installed in accordance with Section 1024 of the *International Building Code*.

**511.19.1 Occupancy side of doors.** Signs shall be located at each level on the occupancy (tenant) side of all enclosed stairways, regardless of the height of the building.

**511.19.2 Floor Level.** The floor level number shall be displayed on the stairwell identification sign.

**511.19.3 Reentry.** Where stairway doors are locked from the stairway side to prohibit entry to a floor, "NO REENTRY" shall be placed at the bottom of the sign in a minimum 1-inch lettering.

***Section 603.3.2.1, Exception; change exception to read as follows:***

Exception: The aggregate capacity limit shall be permitted to be increased to 3,000 gallons (11,356 L) in accordance with all requirements of Chapter 57.

***Section 603.3.2.2; change to read as follows:***

**603.3.2.2 Restricted Use and Connection.** Tanks installed in accordance with Section 603.3.2 shall be used only to supply fuel oil to fuel-burning equipment installed in accordance with Section 603.3.2.4. Connections between tanks and equipment supplied by such tanks shall be made using closed piping systems.

***Section 604; change and add to read as follows:***

**604.1.1 Stationary Generators.** Stationary emergency and standby power generators required by this code shall be *listed* in accordance with UL 2200.

**604.1.2 Installation.** Emergency power systems and standby power systems shall be installed in accordance with the *International Building Code*, NFPA 70, NFPA 110 and NFPA 111. Existing installations shall be maintained in accordance with the original approval, except as specified in Chapter 11.

**604.1.3 Load Transfer** Emergency power systems shall automatically provide secondary power within 10 seconds after primary power is lost, unless specified otherwise in this code. Standby power systems shall automatically provide secondary power within 60 seconds after primary power is lost unless specified otherwise in this code.

**604.1.4 Load Duration** Emergency power systems and standby power systems shall be designed to provide the required power for a minimum duration of 2 hours without being refueled or recharged, unless specified otherwise in this code.

**604.1.5 Uninterruptable Power Source** An uninterrupted source of power shall be provided for equipment where required by the manufacturer's instructions, the listing, this code or applicable referenced standards.

**604.1.6 Interchangeability** Emergency power systems shall be an acceptable alternative for installations that require standby power systems.

**604.1.7 Group I-2 Occupancies** In Group I-2 occupancies, where an essential electrical system is located in flood hazard areas established in Section 1612.3 of the *International Building Code* and where new or replacement essential electrical system generators are installed, the system shall be located and installed in accordance with ASCE 24.

**604.1.8 Maintenance** Existing installations shall be maintained in accordance with the original approval and Section 604.4.

**604.1.9 Critical Operations Power Systems (COPS).** For Critical Operations Power Systems necessary to maintain continuous power supply to facilities or parts of facilities that require continuous operation for the reasons of public safety, emergency management, national security, or business continuity, see NFPA 70.

**604.2 Where Required.** Emergency and standby power systems shall be provided where required by Sections 604.2.1 through 604.2.24 or elsewhere identified in this code or any other referenced code.

**604.2.4 Emergency Voice/alarm Communications Systems.** Emergency power shall be provided for emergency voice/alarm communications systems in the following occupancies, or as specified elsewhere in this code, as required in Section 907.5.2.2.5. The system shall be capable of powering the required load for a duration of not less than 24 hours, as required in NFPA 72.

1. Covered and Open Malls, Section 907.2.20 and 914.2.3
2. Group A Occupancies, Sections 907.2.1 and 907.5.2.2.4.
3. Special Amusement Buildings, Section 907.2.12.3
4. High-rise Buildings, Section 907.2.13
5. Atriums, Section 907.2.14
6. Deep Underground Buildings, Section 907.2.19

**604.2.5 through 604.2.11** {No change.}

**604.2.12 Means of Egress Illumination.** Emergency power shall be provided for *means of egress* illumination in accordance with Sections 1008.3 and 1104.5.1. (90 minutes)

**604.2.13 Membrane Structures.** Emergency power shall be provided for *exit* signs in temporary tents and membrane structures in accordance with Section 3103.12.6.1. (90 minutes) Standby power shall be provided for auxiliary inflation systems in permanent membrane structures in accordance with Section 2702 of the *International Building Code*. (4 hours) Auxiliary inflation systems shall be provided in temporary air-supported and air-inflated membrane structures in accordance with section 3103.10.4.

**604.2.15 Smoke Control Systems.** Standby power shall be provided for smoke control systems in the following occupancies, or as specified elsewhere in this code, as required in Section 909.11:

Covered Mall Building, *International Building Code*, Section 402.7

Atriums, *International Building Code*, Section 404.7

Underground Buildings, *International Building Code*, Section 405.8

Group I-3, *International Building Code*, Section 408.4.2

Stages, *International Building Code*, Section 410.3.7.2

Special Amusement Buildings (as applicable to Group A's), *International Building Code*, Section 411.1

Smoke Protected Seating, Section 1029.6.2.1

**604.2.17 Covered and Open Mall Buildings.** Emergency power shall be provided in accordance with Section 907.2.20 and 914.2.3.

**604.2.18 Airport Traffic Control Towers.** A standby power system shall be provided in airport traffic control towers more than 65 ft. in height. Power shall be provided to the following equipment:

1. Pressurization equipment, mechanical equipment and lighting.
2. Elevator operating equipment.
3. Fire alarm and smoke detection systems.

**604.2.19 Smokeproof Enclosures and Stair Pressurization Alternative.** Standby power shall be provided for smokeproof enclosures, stair pressurization alternative and associated automatic fire detection systems as required by the *International Building Code*, Section 909.20.6.2.

**604.2.20 Elevator Pressurization.** Standby power shall be provided for elevator pressurization system as required by the *International Building Code*, Section 909.21.5.

**604.2.21 Elimination of Smoke Dampers in Shaft Penetrations.** Standby power shall be provided when eliminating the smoke dampers in ducts penetrating shafts in accordance with the *International Building Code*, Section 717.5.3, exception 2.3.

**604.2.22 Common Exhaust Systems for Clothes Dryers.** Standby power shall be provided for

common exhaust systems for clothes dryers located in multistory structures in accordance with the *International Mechanical Code*, Section 504.10, Item 7.

**604.2.23 Hydrogen Cutoff Rooms.** Standby power shall be provided for mechanical ventilation and gas detection systems of Hydrogen Cutoff Rooms in accordance with the *International Building Code*, Section 421.8.

**604.2.24 Means of Egress Illumination in Existing Buildings.** Emergency power shall be provided for *means of egress* illumination in accordance with Section 1104.5 when required by the fire code official. (90 minutes in I-2, 60 minutes elsewhere.)

**604.8 Energy Time Duration.** Unless a time limit is specified by the fire code official, in this chapter or elsewhere in this code, or in any other referenced code or standard, the emergency and standby power system shall be supplied with enough fuel or energy storage capacity for not less than 2-hour full-demand operation of the system.

**Exception:** Where the system is supplied with natural gas from a utility provider and is approved.

***Section 605 is amended by adding the following:***

**605.13 Labels for disconnecting means.** Each disconnecting means for each service feeder, or branch circuit shall be legibly marked to indicate its purpose at the point where it originates. Where the service feeder or branch is located on a building or other structure, a description of the device and address of the building must be prominently displayed utilizing a marking of sufficient durability to withstand the environment involved. A list of acceptable marking devices and labels can be obtained through the fire department.

***Section 609.2; change to read as follows:***

**609.2 Where Required.** A Type I hood shall be installed at or above all commercial cooking appliances and domestic cooking appliances used for commercial purposes that produce grease vapors, including but not limited to cooking equipment used in fixed, mobile, or temporary concessions, such as trucks, buses, trailers, pavilions, or any form of roofed enclosure, as required by the fire code official.

**Exceptions:**

1. Tents, as provided for in Chapter 31.

2. A Type I hood shall not be required for an electric cooking appliance where an approved testing agency provides documentation that the appliance effluent contains 5 mg/m<sup>3</sup> or less of grease when tested at an exhaust flow rate of 500 cfm (0.236 m<sup>3</sup>/s) in accordance with UL 710B.

Additionally, fuel gas and power provided for such cooking appliances shall be interlocked with the extinguishing system, as required by Section 904.12.2. Fuel gas containers and piping/hose shall be properly maintained in good working order and in accordance with all applicable regulations.

***Section 704.1; change to read as follows:***

**704.1 Enclosure.** Interior vertical shafts including, but not limited to, *stairways*, elevator hoistways, service and utility shafts, that connect two or more stories of a building shall be enclosed or protected in accordance with the codes in effect at the time of construction but, regardless of when constructed, not less than as required in Chapter 11. New floor openings in existing buildings shall comply with the *International Building Code*.

**Section 705 is hereby added to read as follows:**

**Section 705 Multiple Occupancy Buildings**

**705.1 Scope.** The provisions of this chapter shall apply to all buildings and structures where more than one (1) occupancy and/or business is located within same building or structure.

**705.2 Separation.** Each occupancy shall be separated from adjoining occupancies by a minimum one-hour fire rated demising wall or assembly, constructed in accordance with the International Building Code.

***Section 807.3; change to read as follows:***

**807.3 Combustible Decorative Materials.** In occupancies in Groups A, E, I, and R-1, and dormitories in Group R-2, curtains, draperies, fabric hangings and other similar combustible decorative materials suspended from walls or ceilings shall comply with Section 807.4 and shall not exceed 10 percent of the specific wall or ceiling area to which they are attached.

***Section 807.5.2.2 and 807.5.2.3; change to read as follows:***

**807.5.2.2 Artwork in Corridors.** Artwork and teaching materials shall be limited on the walls of



corridors to not more than 20 percent of the wall area. Such materials shall not be continuous from floor to ceiling or wall to wall. Curtains, draperies, wall hangings, and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or be noncombustible.

**Exception:** Corridors protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 shall be limited to 50 percent of the wall area.

**807.5.2.3 Artwork in Classrooms.** Artwork and teaching materials shall be limited on walls of classrooms to not more than 50 percent of the specific wall area to which they are attached. Curtains, draperies, wall hangings and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or be noncombustible.

***Section 807.5.5.2 and 807.5.5.3; change to read as follows:***

**807.5.5.2 Artwork in Corridors.** Artwork and teaching materials shall be limited on the walls of corridors to not more than 20 percent of the wall area. Such materials shall not be continuous from floor to ceiling or wall to wall. Curtains, draperies, wall hangings and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or be noncombustible.

**Exception:** Corridors protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 shall be limited to 50 percent of the wall area.

**807.5.5.3 Artwork in Classrooms.** Artwork and teaching materials shall be limited on walls of classrooms to not more than 50 percent of the specific wall area to which they are attached. Curtains, draperies, wall hangings and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or be noncombustible.

***Section 901.6.1; add Section 901.6.1.1 to read as follows:***

**901.6.1.1 Standpipe Testing.** Building owners/managers must maintain and test standpipe systems as per NFPA 25 requirements. The following additional requirements shall be applied to the testing that is required every 5 years:

1. The piping between the Fire Department Connection (FDC) and the standpipe shall be backflushed when foreign material is present, and also hydrostatically tested for all FDC's on any type of standpipe system. Hydrostatic testing shall also be conducted in accordance with NFPA 25 requirements for the different types of standpipe systems.
2. For any manual (dry or wet) standpipe system not having an automatic water supply capable of flowing water through the standpipe, the tester shall connect hose from a fire hydrant or portable pumping system (as approved by the *fire code official*) to each FDC, and flow water through the standpipe system to the roof outlet to verify that each inlet connection functions properly. Confirm that there are no open hose valves prior to introducing water into a dry standpipe. There is no required pressure criteria at the outlet. Verify that check valves function properly and that there are no closed control valves on the system.
3. Any pressure relief, reducing, or control valves shall be tested in accordance with the requirements of NFPA 25. All hose valves shall be exercised.
4. If the FDC is not already provided with approved caps, the contractor shall install such caps for all FDC's as required by the *fire code official*.
5. Upon successful completion of standpipe test, place a blue tag (as per Texas Administrative Code, Fire Sprinkler Rules for Inspection, Test and Maintenance Service (ITM) Tag) at the bottom of each standpipe riser in the building. The tag shall be check-marked as "Fifth Year" for Type of ITM, and the note on the back of the tag shall read "5 Year Standpipe Test" at a minimum.
6. The procedures required by Texas Administrative Code Fire Sprinkler Rules with regard to Yellow Tags and Red Tags or any deficiencies noted during the testing, including the required notification of the local Authority Having Jurisdiction (*fire code official*) shall be followed.
7. Additionally, records of the testing shall be maintained by the owner and contractor, if applicable, as required by the State Rules mentioned above and NFPA 25.
8. Standpipe system tests where water will be flowed external to the building shall not be conducted during freezing conditions or during the day prior to expected night time freezing conditions.
9. Contact the *fire code official* for requests to remove existing fire hose from Class II and III standpipe systems where employees are not trained in the utilization of this firefighting equipment. All standpipe hose valves must remain in place and be provided with an approved cap and chain when approval is given to remove hose by the *fire code official*.

**Section 901.6.3; add Section 901.6.3 to read as follows:**

**901.6.3 False Alarms and Nuisance Alarms.** False alarms and nuisance alarms shall not be given, signaled or transmitted or caused or permitted to be given, signaled or transmitted in any manner.

**Section 901.7; change to read as follows:**

**901.7 Systems Out of Service.** Where a required *fire protection system* is out of service or in the event of an excessive number of activations, the fire department and the *fire code official* shall be notified immediately and, where required by the *fire code official*, the building shall either be evacuated or an *approved fire watch* shall be provided for all occupants left unprotected by the shut down until the *fire protection system* has been returned to service.

Where utilized, fire watches shall be provided with not less than one *approved* means for notification of the fire department and their only duty shall be to perform constant patrols of the protected premises and keep watch for fires.

**Section 901.8.2; change to read as follows:**

**901.8.2 Removal of Occupant-use Hose Lines.** The *fire code official* is authorized to permit the removal of occupant-use hose lines and hose valves where all of the following conditions exist:

1. The hose line(s) would not be utilized by trained personnel or the fire department.
2. If the occupant-use hose lines are removed, but the hose valves are required to remain as per the fire code official, such shall be compatible with local fire department fittings.

**Section 903.1.1; change to read as follows:**

**903.1.1 Alternative Protection.** Alternative automatic fire-extinguishing systems complying with Section 904 shall be permitted in addition to automatic sprinkler protection where recognized by the applicable standard, or as *approved* by the *fire code official*.

**Section 903.1 is amended by adding the following:**

**903.1.2 More restrictive section applies.** Where fire sprinklers are required in other sections of this code, the most restrictive requirement will apply to methods of construction, installation, or other system requirements.

**Section 903.2; Section 903.2 through Section 903.2.12 amended to read as follows:**

**903.2 Where Required.** Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12. All structures exceeding 5000 sq ft., unless expressly exempted in this section, shall require automatic sprinkler systems.

Automatic Sprinklers shall not be installed in elevator machine rooms, elevator machine spaces, and elevator hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances. Storage shall not be allowed within the elevator machine room. Signage shall be provided at the entry doors to the elevator machine room indicating "ELEVATOR MACHINERY—NO STORAGE ALLOWED."

**903.2.1 Group A.** An automatic sprinkler system shall be provided throughout buildings and portions thereof used as Group A occupancies as provided in this section. For Group A-1, A-2, A-3 and A-4 occupancies, the automatic sprinkler system shall be provided throughout the story where the fire area containing the Group A-1, A-2, A-3 or A-4 occupancy is located, and throughout all stories from the Group A occupancy to, and including, the levels of exit discharge serving the Group A occupancy. For Group A-5 occupancies, the automatic sprinkler system shall be provided in the spaces indicated in Section 903.2.1.5.

**903.2.1.1 Group A-1.** An automatic sprinkler system shall be provided for fire areas containing Group A-1 occupancies and intervening floors of the building where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet (1115 m<sup>2</sup>).
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.
4. The fire area is two or more stories in height.
5. The fire area contains a multi-theater complex.

Note; For the purpose of this provision, fire walls shall not define separate buildings.

**903.2.1.2 Group A-2.** An automatic sprinkler system shall be provided for fire areas containing Group A-2 occupancies and intervening floors of the building where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet (464 m<sup>2</sup>).
2. The fire area has an occupant load of 100 or more.
3. The fire area is two or more stories in height.
4. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

Note: For the purpose of this provision, fire walls shall not define separate buildings.

**903.2.1.3 Group A-3.** An automatic sprinkler system shall be provided for fire areas containing Group A-3 occupancies and intervening floors of the building where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet (1115 m<sup>2</sup>).
2. The fire area has an occupant load of 300 or more.
3. The fire area is two or more stories in height.
4. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

Note: For the purpose of this provision, fire walls shall not define separate buildings.

**903.2.1.4 Group A-4.** An automatic sprinkler system shall be provided for fire areas containing Group A-4 occupancies and intervening floors of the building where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet (1115 m<sup>2</sup>).
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

Note: For the purpose of this provision, fire walls shall not define separate buildings.

**903.2.1.5 Group A-5.** An automatic sprinkler system shall be provided for Group A-5 occupancies in the following areas: concession stands, retail areas, press boxes and other accessory use areas in excess of 1,000 square feet (93 m<sup>2</sup>).

**903.2.1.6 Assembly Occupancies on Roofs.** Where an occupied roof has an assembly occupancy with an occupant load exceeding 100 for Group A-2 and 300 for other Group A occupancies, all floors between the occupied roof and the level of exit discharge shall be equipped with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

**Exception:** Open parking garages of Type I or Type II construction.

**903.2.1.7 Multiple Fire Areas.** An automatic sprinkler system shall be provided where multiple fire areas of Group A-1, A-2, A-3 or A-4 occupancies share exit or exit access components and the combined occupant load of these fire areas is 300 or more.

**903.2.2 Ambulatory Care Facilities.** An automatic sprinkler system shall be installed throughout the entire floor containing an ambulatory care facility where either of the following conditions exist at any time:

1. Four or more care recipients are incapable of self-preservation, whether rendered incapable by staff or staff has accepted responsibility for care recipients already incapable.
2. One or more care recipients that are incapable of self-preservation are located at other than the level of exit discharge serving such a facility.

In buildings where ambulatory care is provided on levels other than the level of exit discharge, an automatic sprinkler system shall be installed throughout the entire floor where such care is provided as well as all floors below, and all floors between the level of ambulatory care and the nearest level of exit discharge, including the level of exit discharge.

**903.2.3 Group E.** An automatic sprinkler system shall be provided for Group E occupancies as follows:

1. Throughout all Group E fire areas greater than 5,000 square feet in area.
2. Throughout every portion of educational buildings below the lowest level of exit discharge.

**Exception:** An automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area where every classroom throughout the building has not fewer than one exterior exit door at ground level. However, partially sprinklered buildings are not permitted under this exception.

Note: For the purpose of this provision, fire walls shall not define separate buildings.

**903.2.4 Group F-1.** An automatic sprinkler system shall be provided throughout all buildings containing a Group F-1 occupancy where one of the following conditions exists:

1. A Group F-1 fire area exceeds 5,000 square feet.
2. A Group F-1 fire area is located more than three stories above grade plane.

3. The combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 5,000 square feet.
4. A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet (232 m<sup>2</sup>).

Note: For the purpose of this provision, fire walls shall not define separate buildings.

**903.2.4.1 Woodworking Operations.** An automatic sprinkler system shall be provided throughout all Group F-1 occupancy fire areas that contain woodworking operations in excess of 2,500 square feet in area (232 m<sup>2</sup>) that generate finely divided combustible waste or use finely divided combustible materials.

**903.2.5 Group H.** Automatic sprinkler systems shall be provided in high-hazard occupancies as required in Sections 903.2.5.1 through 903.2.5.3.

**903.2.5.1 General.** An automatic sprinkler system shall be installed in Group H occupancies.

**903.2.5.2 Group H-5 Occupancies.** An automatic sprinkler system shall be installed throughout buildings containing Group H-5 occupancies. The design of the sprinkler system shall be not less than that required under the International Building Code for the occupancy hazard classifications in accordance with Table 903.2.5.2.

Where the design area of the sprinkler system consists of a corridor protected by one row of sprinklers, the maximum number of sprinklers required to be calculated is 13.

TABLE 903.2.5.2 GROUP H-5 SPRINKLER DESIGN CRITERIA

LOCATION	OCCUPANCY HAZARD CLASSIFICATION
Fabrication areas	Ordinary Hazard Group 2
Service corridors	Ordinary Hazard Group 2
Storage rooms without dispensing	Ordinary Hazard Group 2

Storage rooms with dispensing	Extra Hazard Group 2
Corridors	Ordinary Hazard Group 2

**903.2.5.3 Pyroxylin Plastics.** An automatic sprinkler system shall be provided in buildings, or portions thereof, where cellulose nitrate film or pyroxylin plastics are manufactured, stored or handled in quantities exceeding 100 pounds (45 kg).

**903.2.6 Group I.** An automatic sprinkler system shall be provided throughout buildings with a Group I fire area.

**Exceptions:**

1. An automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be permitted in Group I-1 Condition 1 facilities.
2. An automatic sprinkler system is not required where Group I-4 day care facilities are at the level of exit discharge and where every room where care is provided has not fewer than one exterior exit door.
3. In buildings where Group I-4 day care is provided on levels other than the level of exit discharge, an automatic sprinkler system in accordance with Section 903.3.1.1 shall be installed on the entire floor where care is provided, all floors between the level of care and the level of exit discharge and all floors below the level of exit discharge other than areas classified as an open parking garage.

Note: For the purpose of this provision, fire walls shall not define separate buildings.

**903.2.7 Group M**

An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancy where one of the following conditions exists:

1. A Group M fire area exceeds 5,000 square feet (1115 m<sup>2</sup>).
2. A Group M fire area is located two or more stories above grade plane.
3. The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 5,000 square feet (2230 m<sup>2</sup>).
4. A Group M occupancy used for the display and sale of upholstered furniture or mattresses exceeds 5,000 square feet (464 m<sup>2</sup>).

Note: For the purpose of this provision, fire walls shall not define separate buildings.



**903.2.7.1 High-Piled Storage.** An automatic sprinkler system shall be provided as required in Chapter 32 in all buildings of Group M where storage of merchandise is in high-piled or rack storage arrays.

**903.2.8 Group R.** An automatic sprinkler system installed shall be provided throughout buildings where a Group R conditioned space exceeds 5,000 square feet.

**903.2.8.1 Group R-3.** An automatic sprinkler system installed in accordance with Section 903.3.1.3 shall be permitted in Group R-3 occupancies.

**903.2.8.2 Group R-4 Condition 1.** An automatic sprinkler system installed in accordance with Section 903.3.1.3 shall be permitted in Group R-4 Condition 1 occupancies.

**903.2.8.3 Group R-4 Condition 2.** An automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be permitted in Group R-4 Condition 2 occupancies. Attics shall be protected in accordance with Section 903.2.8.3.1 or 903.2.8.3.2.

**903.2.8.3.1 Attics Used for Living Purposes, Storage or Fuel-Fired Equipment.** Attics used for living purposes, storage or fuel-fired equipment shall be protected throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.2.

**903.2.8.3.2 Attics Not Used for Living Purposes, Storage or Fuel-Fired Equipment.** Attics not used for living purposes, storage or fuel-fired equipment shall be protected in accordance with one of the following:

1. Attics protected throughout by a heat detector system arranged to activate the building fire alarm system in accordance with Section 907.2.10.
2. Attics constructed of noncombustible materials.
3. Attics constructed of fire-retardant-treated wood framing complying with Section 2303.2 of the International Building Code.
4. The automatic sprinkler system shall be extended to provide protection throughout the attic space.

**903.2.8.4 Care Facilities.** An automatic sprinkler system installed in accordance with Section 903.3.1.3 shall be permitted in care facilities with five or fewer individuals in a single-family dwelling.

**903.2.9 Group S-1.** An automatic sprinkler system shall be provided throughout all buildings containing a Group S-1 occupancy where one of the following conditions exists:

1. A Group S-1 fire area exceeds 5,000 square feet.
2. A Group S-1 fire area is located more than three stories above grade plane.
3. The combined area of all Group S-1 fire areas on all floors, including any mezzanines, exceeds 5,000 square feet.
4. A Group S-1 fire area used for the storage of commercial motor vehicles where the fire area exceeds 5,000 square feet.
5. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds 2,500 square feet (232 m<sup>2</sup>).

Note: For the purpose of this provision, fire walls shall not define separate buildings.

**903.2.9.1 Repair Garages.** An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with Section 406.8 of the International Building Code, as shown:

1. Buildings having two or more stories above grade plane, including basements, with a fire area containing a repair garage exceeding 5,000 square feet.
2. Buildings not more than one story above grade plane, with a fire area containing a repair garage exceeding 5,000 square feet.
3. Buildings with repair garages servicing vehicles parked in basements.
4. A Group S-1 fire area used for the repair of commercial motor vehicles where the fire area exceeds 5,000 square feet.

Note: For the purpose of this provision, fire walls shall not define separate buildings.

**903.2.9.2 Bulk Storage of Tires.** Buildings and structures where the area for the storage of tires exceeds 20,000 cubic feet shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

**903.2.9.3 Self-Service Storage Facility.** An automatic sprinkler system shall be installed throughout all self-service storage facilities.

**903.2.10 Group S-2 Enclosed Parking Garages. 903.2.10 Group S-2.** An automatic sprinkler system shall be provided throughout all buildings containing a Group S-2 occupancy where one of the following conditions exist:

1. Where a Group S-2 fire area exceeds 5,000 square feet;

**Exception:** Open parking garages.

2. Where the fire area of an enclosed parking garage exceeds 5,000 square feet; or
3. Where enclosed parking garages are located beneath other groups.

Exception: Enclosed parking garages located beneath Group R-3 occupancies.

Note: For the purpose of this provision, fire walls shall not define separate buildings.

**903.2.10.1 Commercial Parking Garages.** An automatic sprinkler system shall be provided throughout buildings used for storage of commercial motor vehicles where the fire area exceeds 5,000 square feet.

**903.2.11 Specific Buildings Areas and Hazards.** In all occupancies other than Group U, an *automatic sprinkler system* shall be installed for building design or hazards in the locations set forth in Sections 903.2.11.1 through 903.2.11.6.

**903.2.11.1 Stories Without Openings.** An *automatic sprinkler system* shall be installed throughout all stories, including *basements*, of all buildings where the floor area exceeds 1,500 square feet (139.4 m<sup>2</sup>) and where there is not provided not fewer than one of the following types of *exterior wall* openings:

1. Openings below grade that lead directly to ground level by an exterior *stairway* complying with Section 1011 or an outside ramp complying with Section 1012. Openings shall be located in each 50 linear feet (15 240 mm), or fraction thereof, of *exterior wall* in the story on at least one side. The required openings shall be distributed such that the lineal distance between adjacent openings does not exceed 50 feet (15 240 mm).
2. Openings entirely above the adjoining ground level totaling not less than 20 square feet (1.86 m<sup>2</sup>) in each 50 linear feet (15 240 mm), or fraction thereof, of *exterior wall* in the story on at least one side. The required openings shall be distributed such that the lineal distance between adjacent openings does not exceed 50 feet (15 240 mm). The height of the bottom of the clear opening shall not exceed 44 inches (1118 mm) measured from the floor.

**903.2.11.1.1 Opening Dimensions and Access.** Openings shall have a minimum dimension of not less than 30 inches (762 mm). Such openings shall be accessible to the fire department from the exterior and shall not be obstructed in a manner such that firefighting or rescue cannot be accomplished from the exterior.

**903.2.11.1.2 Openings on One Side Only,** Where openings in a story are provided on only one side and the opposite wall of such story is more than 75 feet (22 860 mm) from such openings, the story shall be equipped throughout with an *approved automatic sprinkler system* or openings as specified above shall be provided on not fewer than two sides of the story.

**903.2.11.1.3 Basements.** Where any portion of a *basement* is located more than 75 feet (22 860 mm) from openings required by Section 903.2.11.1, or where walls, partitions or other obstructions are installed that restrict the application of water from hose streams, the *basement* shall be equipped throughout with an *approved automatic sprinkler system*.

**903.2.11.2 Rubbish and Linen Chutes.** An *automatic sprinkler system* shall be installed at the top of rubbish and linen chutes and in their terminal rooms. Chutes shall have additional sprinkler heads installed at alternate floors and at the lowest intake. Where a rubbish chute extends through a building more than one floor below the lowest intake, the extension shall have sprinklers installed that are recessed from the drop area of the chute and protected from freezing in accordance with Section 903.3.1.1. Such sprinklers shall be installed at alternate floors beginning with the second level below the last intake and ending with the floor above the discharge. Chute sprinklers shall be accessible for servicing.

**903.2.11.3 Buildings 35 feet or more in height.** An automatic sprinkler system shall be installed throughout buildings that have one or more stories, other than penthouses in compliance with Section 1510 of the *International Building Code*, located 35 feet (10 668 mm) or more above the lowest level of fire department vehicle access, measured to the finished floor.

**Exceptions:** Open parking structures in compliance with Section 406.5 of the *International Building Code*, having no other occupancies above the subject garage.

**903.2.11.4 Ducts Conveying Hazardous Exhausts** Where required by the *International Mechanical Code*, automatic sprinklers shall be provided in ducts conveying hazardous exhaust or flammable or combustible materials.

**Exception:** Ducts where the largest cross-sectional diameter of the duct is less than 10 inches (254 mm).

**903.2.11.5 Commercial Cooking Operations** An *automatic sprinkler system* shall be installed in commercial kitchen exhaust hood and duct systems where an *automatic sprinkler system* is used to comply with Section 904.

**903.2.11.6 Other Required Suppression Systems** In addition to the requirements of Section 903.2, the provisions indicated in Table 903.2.11.6 require the installation of a fire suppression system for certain buildings and areas.

**TABLE 903.2.11.6 ADDITIONAL REQUIRED FIRE SUPPRESSION SYSTEMS**

<b>SECTION</b>	<b>SUBJECT</b>
914.2.1	Covered and open mall buildings
914.3.1	High-rise buildings
914.4.1	Atriums
914.5.1	Underground structures
914.6.1	Stages
914.7.1	Special amusement buildings
914.8.2	Airport traffic control towers
914.8.3, 914.8.6	Aircraft hangars
914.9	Flammable finishes
914.10	Drying rooms
914.11.1	Ambulatory care facilities

1029.6.2.3	Smoke-protected assembly seating
1103.5.1	Pyroxylin plastic storage in existing buildings
1103.5.2	Existing Group I-2 occupancies
1103.5.3	Existing Group I-2 Condition 2 occupancies
1103.5.4	Pyroxylin plastics
2108.2	Dry cleaning plants
2108.3	Dry cleaning machines
2309.3.2.6.2	Hydrogen motor fuel-dispensing area canopies
2404.2	Spray finishing in Group A, E, I or R
2404.4	Spray booths and spray rooms
2405.2	Dip-tank rooms in Group A, I or R
2405.4.1	Dip tanks
2405.9.4	Hardening and tempering tanks
2703.10	HPM facilities
2703.10.1.1	HPM work station exhaust
2703.10.2	HPM gas cabinets and exhausted enclosures
2703.10.3	HPM exit access corridor
2703.10.4	HPM exhaust ducts

2703.10.4.1	HPM noncombustible ducts
2703.10.4.2	HPM combustible ducts
2807.3	Lumber production conveyor enclosures
2808.7	Recycling facility conveyor enclosures
3006.1	Class A and B ovens
3006.2	Class C and D ovens
Table 3206.2	Storage fire protection
3206.4	Storage
3704.5	Storage of more than 1,000 cubic feet of loose combustible fibers
5003.8.4.1	Gas rooms
5003.8.5.3	Exhausted enclosures
5004.5	Indoor storage of hazardous materials

**TABLE 903.2.11.6—continued ADDITIONAL REQUIRED FIRE SUPPRESSION SYSTEMS**

<b>SECTION</b>	<b>SUBJECT</b>
5005.1.8	Indoor dispensing of hazardous materials
5104.4.1	Aerosol warehouses
5106.3.2	Aerosol display and merchandising areas
5306.2.1	Exterior medical gas storage room

5306.2.2	Interior medical gas storage room
5306.2.3	Medical gas storage cabinet
5606.5.2.1	Storage of smokeless propellant
5606.5.2.3	Storage of small arms primers
5704.3.7.5.1	Flammable and combustible liquid storage rooms
5704.3.8.4	Flammable and combustible liquid storage warehouses
5705.3.7.3	Flammable and combustible liquid Group H-2 or H-3 areas
6004.1.2	Gas cabinets for highly toxic and toxic gas
6004.1.3	Exhausted enclosures for highly toxic and toxic gas
6004.2.2.6	Gas rooms for highly toxic and toxic gas
6004.3.3	Outdoor storage for highly toxic and toxic gas
6504.1.1	Pyroxylin plastic storage cabinets
6504.1.3	Pyroxylin plastic storage vaults
6504.2	Pyroxylin plastic storage and manufacturing

For SI: 1 cubic foot = 0.023 m<sup>3</sup>.

**903.2.11.7 High-Piled Combustible Storage.** For any building with a clear height exceeding 12 feet (4572 mm), see Chapter 32 to determine if those provisions apply.



**903.2.11.8 Spray Booths and Rooms.** New and existing spray booths and spraying rooms shall be protected by an approved automatic fire-extinguishing system.

**903.2.11.9 Buildings Over 5,000 sq. ft.** An automatic sprinkler system shall be installed throughout all buildings with a building area 5,000 sq. ft. or greater in section 903.2 through Section 903.2.12 and in all existing buildings that are enlarged to be 5,000 sq. ft. or greater. For the purpose of this provision, fire walls shall not define separate buildings.

**Exception:** Open parking garages in compliance with Section 406.5 of the *International Building Code*.

For the purpose of this section, any attachment, awning, cover, or porte cochere is considered fire area and is calculated in total building area. Other calculations are as prescribed in the International Building Code.

**903.2.11.10 Other occupancy classifications.** An automatic sprinkler system shall be provided throughout all buildings classified as Group B or Group F-2 having a fire area exceeding 5,000 square feet. For the purpose of this provision, fire walls or partitions shall not define separate buildings.

**903.2.12 During Construction** *Automatic sprinkler systems* required during construction, alteration and demolition operations shall be provided in accordance with Section 3313.

**Section 903.3.1.1.1; change to read as follows:**

**903.3.1.1.1 Exempt Locations.** When approved by the *fire code official*, automatic sprinklers shall not be required in the following rooms or areas where such rooms or areas are protected with an *approved* automatic fire detection system in accordance with Section 907.2 that will respond to visible or invisible particles of combustion. Sprinklers shall not be omitted from a room merely because it is damp, of fire-resistance-rated construction or contains electrical equipment.

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the code official.
3. Generator and transformer rooms, under the direct control of a public utility, separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than 2 hours.
4. Elevator machine rooms, machinery spaces, and hoistways, other than pits where such

sprinklers would not necessitate shunt trip requirements under any circumstances.

**Section 903.3.1.2 is amended by adding the following:**

**903.3.1.2.2 Exterior closets.** Sprinkler protection shall be provided in closets (regardless of size) that are accessible from the exterior of the building.

**Section 903.3.1.2.3; add section to read as follows:**

**[F] Section 903.3.1.2.3 Attics and Attached Garages.** Sprinkler protection is required in attic spaces of such buildings two or more stories in height, in accordance with NFPA 13 and or NFPA 13R requirements, and attached garages. Does not apply to one and two family dwellings unless access restrictions are determined by the fire official.

**Section 903.3.1.3; change to read as follows:**

**903.3.1.3 NFPA 13D Sprinkler Systems.** *Automatic sprinkler systems* installed in one- and two-family *dwellings*; Group R-3; Group R-4 Condition 1 and *townhouses* shall be permitted to be installed throughout in accordance with NFPA 13D or in accordance with state law.

**Section 903.3.1.4; add to read as follows:**

**[F] 903.3.1.4 Freeze protection.** Freeze protection systems for automatic fire sprinkler systems shall be in accordance with the requirements of the applicable referenced NFPA standard and this section.

**903.3.1.4.1 Attics.** Only dry-pipe, preaction, or listed antifreeze automatic fire sprinkler systems shall be allowed to protect attic spaces.

**Exception:** Wet-pipe fire sprinkler systems shall be allowed to protect non-ventilated attic spaces where:

1. The attic sprinklers are supplied by a separate floor control valve assembly to allow ease of draining the attic system without impairing sprinklers throughout the rest of the building, and
2. Adequate heat shall be provided for freeze protection as per the applicable referenced NFPA standard, and

3. The attic space is a part of the building's thermal, or heat, envelope, such that insulation is provided at the roof deck, rather than at the ceiling level.

**903.3.1.4.2 Heat trace/insulation.** Heat trace/insulation shall only be allowed where approved by the fire code official for small sections of large diameter water-filled pipe.

***Section 903.3.5; add a second paragraph to read as follows:***

**[F]** Water supply as required for such systems shall be provided in conformance with the supply requirements of the respective standards; however, every water-based fire protection system shall be designed with a 10 psi safety factor. Reference Section 507.4 for additional design requirements.

***Section 903.4; add a second paragraph after the exceptions to read as follows and add Section 903.4.4:***

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering. All water flow monitor notifications shall be latching and remain continuous until water flow suspended

**Section 903.4.4 Addressable Systems.** All initiation devices must be descriptive to location and use. Central reporting must be consistent to identification of a location of activation using common nomenclature. Section and point information alone will not satisfy this requirement.

***Section 903.4.2; add second paragraph to read as follows:***

The alarm device required on the exterior of the building shall be a weatherproof horn/strobe notification appliance with a minimum 75 candela strobe rating, installed as close as practicable to the fire department connection or riser room as approved by the fire official.

***Section 905.2; change to read as follows:***

**905.2 Installation Standard.** Standpipe systems shall be installed in accordance with this section and NFPA 14. Manual dry standpipe systems shall be supervised with a minimum of 10 psig and a maximum of 40 psig air pressure with a high/low alarm.

**Section 905.3; add Section 905.3.9 and exception to read as follows:**

**905.3.9 Buildings Exceeding 10,000 sq. ft.** In buildings exceeding 10,000 square feet in area per story and where any portion of the building's interior area is more than 200 feet (60960 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access, Class I automatic wet or manual wet standpipes shall be provided.

**Exceptions:**

1. Automatic dry and semi-automatic dry standpipes are allowed as provided for in NFPA 14.
2. R-2 occupancies of four stories or less in height having no interior corridors.

Note: For the purpose of this provision, fire walls shall not define separate buildings.

**Section 905.4, change Item 1, 3, and 5, and add Item 7 to read as follows:**

1. In every required exit stairway, a hose connection shall be provided for each story above and below grade plane. Hose connections shall be located at an intermediate landing between stories, unless otherwise approved by the fire code official.
3. In every exit passageway, at the entrance from the exit passageway to other areas of a building.

**Exception:** Where floor areas adjacent to an exit passageway are reachable from an exit stairway hose connection by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the horizontal *exit*.

5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a two-way hose connection located to serve the roof or at the highest landing of an exit stairway with stair access to the roof provided in accordance with Section 1011.12.
7. When required by this Chapter, standpipe connections shall be placed adjacent to all

required exits to the structure and at two hundred feet (200') intervals along major corridors thereafter, or as otherwise approved by the fire code official.

***Section 905.9; add a second paragraph after the exceptions to read as follows:***

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

***Section 907.1; add Section 907.1.4 and 907.1.4.1 to read as follows:***

**907.1.4 Design Standards.** Where a new fire alarm system is installed, the devices shall be addressable. Fire alarm systems utilizing more than 20 smoke detectors shall have analog initiating devices.

***Section 907.2.1; change to read as follows:***

**907.2.1 Group A.** A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies having an occupant load of 300 or more persons or more than 100 persons above or below the lowest level of exit discharge. Group A occupancies not separated from one another in accordance with Section 707.3.-10 of the *International Building Code* shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy.

**Exception:** Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.

Activation of fire alarm notification appliances shall:

1. Cause illumination of the *means of egress* with light of not less than 1 foot-candle (11 lux) at the walking surface level, and
2. Stop any conflicting or confusing sounds and visual distractions.

**Section 907.2.3; change to read as follows:**

**907.2.3 Group E.** A manual fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group E educational occupancies. When *automatic sprinkler systems* or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. An approved smoke detection system shall be installed in Group E day care occupancies. Unless separated by a minimum of 100' open space, all buildings, whether portable buildings or the main building, will be considered one building for alarm occupant load consideration and interconnection of alarm systems.

**Exceptions:**

1. A manual fire alarm system is not required in Group E occupancies with an occupant load of 50 or less.
2. Residential In-Home day care with not more than 12 children may use interconnected single station detectors in all habitable rooms. (For care of more than five children 2 1/2 or less years of age, see Section 907.2.6.)
3. Emergency voice/alarm communication systems meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall not be required in Group E occupancies with occupant loads of 100 or less, provided that activation of the manual fire alarm system initiates an approved occupant notification signal in accordance with Section 907.5.
4. Manual fire alarm boxes are not required in Group E occupancies where all of the following apply:
  - 4.1 Interior *corridors* are protected by smoke detectors.
  - 4.2 Auditoriums, cafeterias, gymnasiums and similar areas are protected by heat detectors or other approved detection devices.
  - 4.3 Shops and laboratories involving dusts or vapors are protected by heat detectors or other approved detection devices.
5. Manual fire alarm boxes shall not be required in Group E occupancies where the all of the following apply:
  - 5.1 Building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1,
  - 5.2The emergency voice/alarm communication system will activate on sprinkler water flow and manual activation.

5.3 Manual activation is provided from a normally occupied location.

**Section 907.2.13, Exception 3; change to read as follows:**

3. Open air portions of buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the *International Building Code*; however, this exception does not apply to accessory uses including but not limited to sky boxes, restaurants, and similarly enclosed areas.

**Section 907.4.2; add Section 907.4.2.7 to read as follows:**

**907.4.2.7 Type.** Manual alarm initiating devices shall be an approved double action type.

**Section 907.6.1; add Section 907.6.1.1 to read as follows:**

**907.6.1.1 Wiring Installation.** All fire alarm systems shall be installed in such a manner that a failure of any single initiating device or single open in an initiating circuit conductor will not interfere with the normal operation of other such devices. All signaling line circuits (SLC) shall be installed in such a way that a single open will not interfere with the operation of any addressable devices (Class A). Outgoing and return SLC conductors shall be installed in accordance with NFPA 72 requirements for Class A circuits and shall have a minimum of four feet separation horizontal and one foot vertical between supply and return circuit conductors. The initiating device circuit (IDC) from a signaling line circuit interface device may be wired Class B, provided the distance from the interface device to the initiating device is ten feet or less.

**Section 907.6.3; delete all four Exceptions.**

**Section 907.6.6; – add sentence at end of paragraph to read as follows:**

**[F]** See 907.6.3 for the required information transmitted to the supervising station.

**Section 909.21.1.2, change to read as follows:**

**909.21.1.2 Standby Power.** Mechanical vestibule and stairway and ramp shaft ventilation systems and automatic fire detection systems shall be provided with standby power in accordance with Section 2702 of the Building Code.

***Section 909.22; add to read as follows:***

**909.22 Stairway or Ramp Pressurization Alternative.** Where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and the stair pressurization alternative is chosen for compliance with Building Code requirements for a smokeproof enclosure, interior exit stairways or ramps shall be pressurized to a minimum of 0.10 inches of water (25 Pa) and a maximum of 0.35 inches of water (87 Pa) in the shaft relative to the building measured with all interior exit stairway and ramp doors closed under maximum anticipated conditions of stack effect and wind effect. Such systems shall comply with Section 909, including the installation of a separate fire-fighter's smoke control panel as per Section 909.16, and a Smoke Control Permit shall be required from the fire department as per Section 105.7.

**[F] 909.22.1 Ventilating equipment.** The activation of ventilating equipment for the stair or ramp pressurization system shall be by smoke detectors installed at each floor level at an approved location at the entrance to the smokeproof enclosure. When the closing device for the stairway or ramp shaft and vestibule doors is activated by smoke detection or power failure, the mechanical equipment shall activate and operate at the required performance levels. Smoke detectors shall be installed in accordance with Section 907.3.

**909.22.1.1 Ventilation Systems.** Smokeproof enclosure ventilation systems shall be independent of other building ventilation systems. The equipment, control wiring, power wiring and ductwork shall comply with one of the following:

1. Equipment, control wiring, power wiring and ductwork shall be located exterior to the building and directly connected to the smokeproof enclosure or connected to the smokeproof enclosure by ductwork enclosed by not less than 2-hour fire barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.
2. Equipment, control wiring, power wiring and ductwork shall be located within the smokeproof enclosure with intake or exhaust directly from and to the outside or through



ductwork enclosed by not less than 2-hour barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.

3. Equipment, control wiring, power wiring and ductwork shall be located within the building if separated from the remainder of the building, including other mechanical equipment, by not less than 2-hour fire barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.

**Exceptions:**

1. Control wiring and power wiring utilizing a 2-hour rated cable or cable system.
2. Where encased with not less than 2 inches (51 mm) of concrete.
3. Control wiring and power wiring protected by a listed electrical circuit protective systems with a fire-resistance rating of not less than 2 hours.

**909.22.1.3 Acceptance and Testing.** Before the mechanical equipment is approved, the system shall be tested in the presence of the fire code official to confirm that the system is operating in compliance with these requirements.

***Section 910.2; change Exception 2. and 3. to read as follows:***

- [F]** 2. Only manual smoke and heat removal shall be required in areas of buildings equipped with early suppression fast-response (ESFR) sprinklers. Automatic smoke and heat removal is prohibited.
3. Only manual smoke and heat removal shall be required in areas of buildings equipped with control mode special application sprinklers with a response time index of  $50(m^*S)^{1/2}$  or less that are listed to control a fire in stored commodities with 12 or fewer sprinklers. Automatic smoke and heat removal is prohibited.

***Section 910.2; add subsections 910.2.3 with exceptions to read as follows:***

**910.2.3 Group H.** Buildings and portions thereof used as a Group H occupancy as follows:

1. In occupancies classified as Group H-2 or H-3, any of which are more than 15,000 square feet (1394 m<sup>2</sup>) in single floor area.

**Exception:** Buildings of noncombustible construction containing only noncombustible materials.

2. In areas of buildings in Group H used for storing Class 2, 3, and 4 liquid and solid oxidizers, Class 1 and unclassified detonable organic peroxides, Class 3 and 4 unstable (reactive) materials, or Class 2 or 3 water-reactive materials as required for a high-hazard commodity classification.

**Exception:** Buildings of noncombustible construction containing only noncombustible materials.

**Section 910.3; add section 910.3.4 to read as follows:**

**910.3.4 Vent Operation.** Smoke and heat vents shall be capable of being operated by approved automatic and manual means. Automatic operation of smoke and heat vents shall conform to the provisions of Sections 910.3.2.1 through 910.3.2.3.

**[F] 910.3.4.1 Sprinklered buildings.** Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall be designed to operate automatically.

The automatic operating mechanism of the smoke and heat vents shall operate at a temperature rating at least 100 degrees F (approximately 38 degrees Celsius) greater than the temperature rating of the sprinklers installed.

**Exception:** Manual only systems per Section 910.2.

**910.3.4.2 Nonsprinklered Buildings.** Where installed in buildings not equipped with an approved automatic sprinkler system, smoke and heat vents shall operate automatically by actuation of a heat-responsive device rated at between 100°F (56°C) and 220°F (122°C) above ambient.

**Exception:** Listed gravity-operated drop out vents.

**Section 910.4.3.1; change to read as follows:**

**910.4.3.1 Makeup Air.** Makeup air openings shall be provided within 6 feet (1829 mm) of the floor level. Operation of makeup air openings shall be automatic. The minimum gross area of makeup air inlets shall be 8 square feet per 1,000 cubic feet per minute (0.74 m<sup>2</sup> per 0.4719 m<sup>3</sup>/s) of smoke exhaust.

**Section 910.4.4; change to read as follows:**

**910.4.4 Activation.** The mechanical smoke removal system shall be activated automatically by the automatic sprinkler system or by an approved fire detection system. Individual manual controls shall also be provided.

**Exception:** Manual only systems per Section 910.2.

**Section 912.2; add Section 912.2.3 to read as follows:**

**912.2.3 Hydrant Distance.** An approved fire hydrant shall be located within 50 feet of the fire department connection as the fire hose lays along an unobstructed path. FDC and fire hydrant to be on the same side of the fire land or roadway.

**Section 913.2.1; add second paragraph and exception to read as follows:**

When located on the ground level at an exterior wall, the fire pump room shall be provided with an exterior fire department access door that is not less than 3 ft. in width and 6 ft. – 8 in. in height, regardless of any interior doors that are provided. A key box shall be provided at this door, as required by Section 506.1.

**Exception:** When it is necessary to locate the fire pump room on other levels or not at an exterior wall, the corridor leading to the fire pump room access from the exterior of the building shall be provided with equivalent fire resistance as that required for the pump room, or as approved by the *fire code official*. Access keys shall be provided in the key box as required by Section 506.1.

**Section 914.3.1.2; change to read as follows:**

**914.3.1.2 Water Supply to required Fire Pumps.** In buildings that are more than 120 feet (128 m) in *building height*, required fire pumps shall be supplied by connections to no fewer than two water mains located in different streets. Separate supply piping shall be provided between each connection to the water main and the pumps. Each connection and the supply piping between the connection and the pumps shall be sized to supply the flow and pressure required for the pumps to operate.

**Exception:** Two connections to the same main shall be permitted provided the main is valved such that an interruption can be isolated so that the water supply will continue without interruption through no fewer than one of the connections.

**Section 1006.2.2.6; add a new Section 1006.2.2.6 as follows:**

**1006.2.2.6 Electrical Rooms.** For electrical rooms, special exiting requirements may apply. Reference the Electrical Code as adopted.

**Section 1009.1; add the following Exception 4:**

**Exceptions:**

4 Buildings regulated under State Law and built in accordance with State registered plans, including any variances or waivers granted by the State, shall be deemed to be in compliance with the requirements of Section 1009

**Section 1010.1.9.4 Bolt Locks; change Exceptions 3 and 4 to read as follows:**

**Exceptions:**

3 Where a pair of doors serves an *occupant load* of less than 50 persons in a Group B, F, M or S occupancy manually operated edge- or surface-mounted bolts are permitted on the inactive leaf. The inactive leaf shall not contain doorknobs, panic bars or similar operating hardware.

4 Where a pair of doors serves a Group A, B, F, M or S occupancy manually operated edge- or surface-mounted bolts are permitted on the inactive leaf provided such inactive leaf is not needed to meet egress capacity requirements

and the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1. The inactive leaf shall not contain doorknobs, panic bars or similar operating hardware.

**Section 1015.8 Window Openings; change number 1 to read as follows:**

1. Operable windows where the top of the sill of the opening is located more than 55 (16 764 mm) above the finished grade or other surface below and that are provided with window fall prevention devices that comply with ASTM F 2006.

**Section 1020.1 Construction; add Exception 6 to read as follows:**

6. In group B occupancies, corridor walls and ceilings need not be of fire-resistive construction within a single tenant space when the space is equipped with approved automatic smoke-detection within the corridor. The actuation of any detector shall activate self-annunciating alarms audible in all areas within the corridor. Smoke detectors shall be connected to an approved automatic fire alarm system where such system is provided.

**Section 1029.1.1.1; delete this section. Spaces under Grandstands and Bleachers:**

**Section 1031.2; change to read as follows:**

**1031.2 Reliability.** Required *exit accesses*, *exits* and *exit discharges* shall be continuously maintained free from obstructions or impediments to full instant use in the case of fire or other emergency. An *exit* or *exit passageway* shall not be used for any purpose that interferes with a means of egress.

**Section 1103.3; add sentence to end of paragraph as follows:**

Provide emergency signage as required by Section 607.3.

**Section 1103.5; add Section 1103.5.4 to read as follows:**

**1103.5.4 Spray Booths and Rooms.** Existing spray booths and spray rooms shall be protected by an approved automatic fire-extinguishing system in accordance with Section 2404.

**Section 1103.7; add Section 1103.7.8 and 1103.7.8.1 to read as follows:**

**1103.7.8 Fire Alarm System Design Standards.** Where an existing fire alarm system is upgraded or replaced, the devices shall be addressable. Fire alarm systems utilizing more than 20 smoke and/or heat detectors shall have analog initiating devices.

**Exception:** Existing systems need not comply unless the total building, or fire alarm system, remodel or expansion exceeds 30% of the building. When cumulative building, or fire alarm system, remodel or expansion initiated after the date of original fire alarm panel installation exceeds 50% of the building, or fire alarm system, the fire alarm system must comply within 18 months of permit application.

**1103.7.8.1 Communication requirements.** Refer to Section 907.6.6 for applicable requirements.

***Section 2304.1; change to read as follows:***

**2304.1 Supervision of Dispensing.** The dispensing of fuel at motor fuel-dispensing facilities shall be in accordance with-the following:

1. Conducted by a qualified attendant; and/or,
2. Shall be under the supervision of a qualified attendant; and/or
3. Shall be an unattended self-service facility in accordance with Section 2304.3.

At any time the qualified attendant of item Number 1 or 2 above is not present, such operations shall be considered as an unattended self-service facility and shall also comply with Section 2304.3.

***Section 2401.2; delete this section.***

***Section 3104.15.4 is amended to read as follows:***

3104.15.4. Operations such as the warming of foods, cooking demonstrations, and similar operations that use solid flammables, butane, or other similar devices which do not pose an ignition hazard may be approved by the fire code official.

***Table 3206.2, footnote j; change text to read as follows:***

- j. Where storage areas are protected by either early suppression fast response (ESFR) sprinkler systems or control mode special application sprinklers with a response time index

of 50 (m • s) 1/2 or less that are listed to control a fire in the stored commodities with 12 or fewer sprinklers, installed in accordance with NFPA 13, manual smoke and heat vents or manually activated engineered mechanical smoke exhaust systems shall be required within these areas.

***Section 3301; amend to add Section 3301.3 as follows:***

**3301.3 Permits.** Permits shall be required as set forth in Section 105.7.

***Section 3304.3 is amended to read as follows:***

**3304.3. Open burning prohibited.** No person shall burn construction, combustible debris, rubbish, waste or other material in the city limits.

***Section 3304.7 is amended to read as follows:***

**3304.7 Electrical.** Temporary wiring for electrical power and lighting installations used in connection with the construction, alteration or demolition of buildings, structures, equipment or similar activities shall comply with the Section 605.9.

***Section 3310.1 is amended to read as follows:***

**3310.1 Required access.** Approved vehicle access for firefighting shall be provided to all construction or demolition sites. Vehicle access shall be provided to within 100 feet of temporary or permanent fire department connections. Vehicle access shall be provided to within 150 feet of all portions of the exterior wall of the first story of each building prior to the erection of combustible material within that building. Vehicle access shall be provided by either temporary or permanent roads capable of supporting vehicle loading under all weather conditions. Vehicle access shall be maintained until permanent fire apparatus access roads are available.

***Section 3312.1 is amended to read as follows:***

**3312.1 When required.** Water supply complying with Section 507 shall be provided within 500 feet of all portions of the exterior wall of the first story of each building prior to the erection of combustible material for that building.

***Section 5601.1.3; change to read as follows:***

**5601.1.3 Fireworks.** The possession, manufacture, storage, sale, handling, and use of fireworks are prohibited.

**Exceptions:**

1. Only when approved for fireworks displays, storage, and handling of fireworks as allowed in Section 5604 and 5608.

2. The use of fireworks for approved fireworks displays as allowed in Section 5608.

***Section 5601.1.3; exception 4, is deleted.***

***Section 5601.2.4; is amended to read as follows:***

**5601.2.4 Financial responsibility.** Before a permit is issued, as required by Section 5601.2, the applicant shall file with the jurisdiction a corporate surety bond or a public liability insurance policy in such form, amount and coverage as determined by the jurisdiction to be adequate in each case, for the purpose of the payment of all damages to persons or property which arise from, or are caused by, the conduct of any act authorized by the permit upon which any judicial judgment results. The fire code official is authorized to specify a greater or lesser amount when, in his or her opinion, conditions at the location of use indicate a greater or lesser amount is required. Government entities shall be exempt from this bond requirement.

***Section 5608; is amended by adding the following:***

**5608.11 Retail display and sale.** Fireworks shall not be displayed for retail sale nor made available to the public.

***Section 5703.6; add a sentence to read as follows:***

**5703.6 Piping Systems.** Piping systems, and their component parts, for flammable and combustible liquids shall be in accordance with Sections 5703.6.1 through 5703.6.11. An *approved* method of secondary containment shall be provided for underground tank and piping systems.

***Section 5704.2.9.5; change Section 5704.2.9.5 and add Section 5704.2.9.5.3 to read as follows:***

**5704.2.9.5 Above-ground Tanks Inside of Buildings.** Above-ground tanks inside of buildings shall comply with Section 5704.2.9.5.1 through 5704.2.9.5.3.

**5704.2.9.5.1 Overfill Prevention.** Above-ground tanks storing Class I, II and IIIA liquids inside buildings shall be equipped with a device or other means to prevent overflow into the building including, but not limited to: a float valve; a preset meter on the fill line; a valve actuated by the weight of the tank's contents; a low-head pump that is incapable of producing overflow; or a liquid-tight overflow pipe not less than one pipe size larger than the fill pipe and discharging by gravity back to the outside source of liquid or to an approved location. Tanks containing Class IIIB liquids and connected to fuel-burning equipment shall be provided with a means to prevent overflow into buildings in accordance with Section 5704.2.7.5.8.

**5704.2.9.5.2 Fill Pipe Connections.** Fill pipe connections for tanks storing Class I, II and IIIA liquids and Class IIIB liquids connected to fuel-burning equipment shall be in accordance with Section 5704.2.9.7.6.



**5704.2.9.5.3 Combustible Liquid Storage Tanks Inside of Buildings.** The maximum aggregate allowable quantity limit shall be 3,000 gallons (11 356 L) of Class II or III combustible liquid for storage in protected aboveground tanks complying with Section 5704.2.9.7 when all of the following conditions are met:

1. The entire 3,000 gallon (11 356 L) quantity shall be stored in protected above-ground tanks;
2. The 3,000 gallon (11 356 L) capacity shall be permitted to be stored in a single tank or multiple smaller tanks;
3. The tanks shall be located in a room protected by an *automatic sprinkler system* complying with Section 903.3.1.1; and
4. Tanks shall be connected to fuel-burning equipment, including generators, utilizing an *approved* closed piping system.

The quantity of combustible liquid stored in tanks complying with this section shall not be counted towards the maximum allowable quantity set forth in Table 5003.1.1(1), and such tanks shall not be required to be located in a control area. Such tanks shall not be located more than two stories below grade.

**Section 5704.2.11.4; add a sentence to read as follows:**

**5704.2.11.4 Leak Prevention.** Leak prevention for underground tanks shall comply with Sections 5704.2.11.4.1 through 5704.2.11.4.3. An *approved* method of secondary containment shall be provided for underground tank and piping systems.

**Section 5704.2.11.4.2; change to read as follows:**

**5704.2.11.4.2 Leak Detection.** Underground storage tank systems shall be provided with an *approved* method of leak detection from any component of the system that is designed and installed in accordance with NFPA 30 and as specified in Section 5704.2.11.4.3.

**Section 5704.2.11.4; add Section 5704.2.11.4.3 to read as follows:**

**5704.2.11.4.3 Observation Wells.** Approved sampling tubes of a minimum 4 inches in diameter shall be installed in the backfill material of each underground flammable or combustible liquid storage tank. The tubes shall extend from a point 12 inches below the average grade of the excavation to ground level and shall be provided with suitable surface access caps. Each tank site shall provide a sampling tube at the corners of the excavation with a minimum of 4 tubes. Sampling tubes shall be placed in the product line excavation within 10 feet of the tank excavation and one every 50 feet routed along product lines towards the dispensers, a minimum of two are

required.

***Section 6103.2.1; add Section 6103.2.1.8 to read as follows:***

**6103.2.1.8 Jewelry Repair, Dental Labs and Similar Occupancies.** Where natural gas service is not available, portable LP-Gas containers are allowed to be used to supply approved torch assemblies or similar appliances. Such containers shall not exceed 20-pound (9.0 kg) water capacity. Aggregate capacity shall not exceed 60-pound (27.2 kg) water capacity. Each device shall be separated from other containers by a distance of not less than 20 feet.

***Section 6104.2, Exception; add an exception 2 to read as follows:***

**Exceptions:**

2. Except as permitted in Sections 308 and 6104.3.2, LP-gas containers are not permitted in residential areas.

***Section 6104.3; add Section 6104.3.2 to read as follows:***

**6104.3.2 Spas, Pool Heaters, and Other Listed Devices.** Where natural gas service is not available, an LP-gas container is allowed to be used to supply spa and pool heaters or other listed devices. Such container shall not exceed 250-gallon water capacity per lot. See Table 6104.3 for location of containers.

**Exception:** Lots where LP-gas can be off-loaded wholly on the property where the tank is located may install up to 500 gallon above ground or 1,000 gallon underground approved containers.

***Section 6107.4 and 6109.13; change to read as follows:***

**6107.4 Protecting Containers from Vehicles.** Where exposed to vehicular damage due to proximity to alleys, driveways or parking areas, LP-gas containers, regulators and piping shall be protected in accordance with Section 312.

**6109.13 Protection of Containers.** LP-gas containers shall be stored within a suitable enclosure or otherwise protected against tampering. Vehicle impact protection shall be provided as required by Section 6107.4.

***Appendix B Table B105.2; change footnote a. to read as follows:***

- a. The reduced fire flow shall be not less than 1500 gallons per minute. Sprinkler systems may be considered for reduction in fire flow required.

**Appendix D Section D101.1; change to read as follows:**

Fire apparatus access roads shall be in accordance with this appendix and all other applicable requirements of the *International Fire Code*. Adjustments, increases, and reductions can be made as referenced in the adopted Rowlett Form Based Code FBC and the Rowlett Standard Street Specifications as authorized by the Fire Official. However, building or development type, use, density and design may require increases from the FBC or other approved city codes. In every case, the fire code shall prevail.