ORDINANCE NO. 2020-01-07__

An Ordinance of the City Council of the City of McKinney, Texas, Amending Chapter 42, "Fire Prevention and Protection," of the Code of Ordinances of the City of McKinney, Texas, by Repealing Article II, "Fire Prevention Code," in its Entirety and Adopting a New Article II, also Entitled "Fire Prevention Code," to Adopt the 2018 Edition of the *International Fire Code* and Local Amendments hereto Including, but not Limited to, Certain Amendments Recommended by the North Central Texas Council of Governments, and Providing for Enforcement; Repealing all Conflicting Ordinances; Providing a Savings Clause; Providing a Severability Clause; Providing for a Penalty; and Providing an Effective Date

WHEREAS, the City of McKinney, Texas (the "City") is a Home Rule City possessing the full power of local self-government pursuant to Article 11, Section 5 of the Texas Constitution, Section 51.072 of the Texas Local Government Code, and the City's Home Rule Charter; and

WHEREAS, a new edition of the *International Fire Code* is produced every three years, and the 2018 Edition of the *International Fire Code* has recently been issued by the International Code Council; and

WHEREAS, the current edition of the *International Fire Code* adopted for the City of McKinney is the 2015 Edition of the *International Fire Code*; and

WHEREAS, a committee of fire code professionals works through the North Central Texas Council of Governments ("NCTCOG") to recommend local amendments specific to the needs of North Central Texas, and the City of McKinney has consistently adopted these recommended amendments, with some minor modifications, in the past so that most municipalities in the region use the same or similar fire code standards; and

WHEREAS, the adoption of the 2018 Edition of the *International Fire Code*, including the local amendments, will provide the most current life safety applications with respect to construction, occupancy, use and maintenance of buildings and structures in the City of McKinney; and

WHEREAS, the creation of the 2018 International Codes by the International Code Council was in conjunction with the International Conference of Building Officials ("ICBO"), the organization whose codes the City of McKinney has adopted since the 1970's; and

WHEREAS, *International Fire Code* certifications will be based on examinations conducted under the 2018 International Codes, so that adoption of the 2018 Edition of the *International Fire Code* will facilitate such examinations; and

WHEREAS, the City Council of the City of McKinney, Texas, deems it to be in the best interest of the citizens of the City of McKinney to update its fire code standards and adopt the 2018 Edition of the *International Fire Code*, as amended, as the minimum standard for the continued construction, occupancy, use and

maintenance of buildings and structures within the City's jurisdictional authority.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MCKINNEY, TEXAS, THAT:

Section 1. All of the above premises are found to be true and correct legislative determinations and are incorporated into the body of this Ordinance as if copied in their entirety.

Section 2. Article II, entitled "Fire Prevention Code," of Chapter 42 of the Code of Ordinances of the City of McKinney, together with Sections 42-23 through 42-26, is hereby deleted and repealed in its entirety and replaced with a new Article II, also entitled "Fire Prevention Code," as set forth in Section 3 of this Ordinance, below.

Section 3. From and after the date of this Ordinance, a new Article II entitled "Fire Prevention Code" of Chapter 42, "Fire Prevention and Protection," of the Code of Ordinances of the City of McKinney, is hereby adopted to read as follows:

"ARTICLE II. FIRE PREVENTION CODE

Sec. 42-23. Adoption of *International Fire Code*.

The *International Fire Code*, 2018 Edition, together with such other amendments as are set forth herein, including appendix chapters B, C, D, E, F, G, H, I, J, K, L and M (*see International Fire Code* Section 101.2.1, 2018 edition), as published by the International Code Council is hereby adopted and designated as the Fire Code of the City to serve as a general standard for purposes of regulating and governing the safeguarding of life and property from fire and explosion hazards arising from the storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life or property in the occupancy of buildings and premises as herein provided; providing for the issuance of permits and collection of fees therefore; and each and all of the regulations, provisions, penalties, conditions and terms of said Fire Code on file in the office of the City Secretary are hereby referred to, adopted, and made a part hereof, as if fully set out in this ordinance, with the additions, insertions, deletions and changes, if any, of this ordinance. Unless deleted, omitted, expanded or otherwise changed herein, all provisions of such *International Fire Code*, 2018 Edition, as amended, shall be fully applicable and binding and in full force and effect. A copy of the *International Fire Code*, 2018 Edition, together with such other amendments as are set forth herein, referred to herein shall be kept on file in the office of the City Secretary.

Sec. 42-24. Enforcement.

The Fire Chief, or his designee, is hereby authorized and directed to enforce all provisions of the Fire Code within the City's corporate limits and the City's extraterritorial jurisdiction and in accordance with Section 122-4 of the Code of Ordinances of the City of McKinney, Texas.

Sec. 42-25. Definitions.

The following words, terms and phrases, when used in the Fire Code adopted in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

(a) Whenever the word "jurisdiction" is used in the *International Fire Code*, 2018 Edition, it shall mean the corporate limits of the City of McKinney, Texas.

(b) Whenever the phrase "Code Official" or "Fire Code Official" is used in the *International Fire Code*, 2018 Edition, it shall mean the Fire Chief of the McKinney Fire Department or his designee.

Sec. 42-26. Fire Code Amendments.

The regional amendments to the *International Fire Code*, 2018 Edition, recommended by the North Central Texas Council of Governments ("NCTCOG Amendments") to repeal and reenact or add sections to the *International Fire Code*, 2018 Edition, which amendments are attached hereto as Attachment A are hereby adopted by the City of McKinney, Texas, and incorporated herein by reference just as though such amendments were set forth herein in their entirety, to amend the *International Fire Code*, 2018 Edition. In addition, the following amendments further repeal and reenact or add sections to the *International Fire Code*, 2018 Edition, adopted in this article for the purpose of consistency with specific past practices and the recommendations of the North Central Texas Council of Governments, and all sections not expressly amended remain in full force and effect as adopted:

(1) **Section 101.1** is hereby amended to read as follows:

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

(2) **Section 102.1 Item 3** is hereby amended to read as follows:

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

(3) **Section 102.4** is hereby amended to read as follows:

102.4 Application of other codes. The design and construction of new structures shall comply with this code and other codes as applicable, and any alterations, additions, changes in use or changes in structures required by this code, which are within the scope of the International Building Code shall be made in accordance therewith.

(4) **Section 102.7** is hereby amended to read as follows:

102.7 Referenced codes and standards. The codes and standards referenced in this code shall be those listed in Chapter 80 and such codes, when specifically adopted, and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.7.1 and 102.7.2.

102.7.1 Conflicts. Where conflicts occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

102.7.2 Provisions in referenced codes and standards. Where the extent of the reference to a referenced code or standard includes subject matter that is within the scope of this code and any adopted amendments, the provisions of this code and any adopted amendments, as applicable, shall take precedence over the provisions in the referenced code or standard.

(5) **Sections 103.1, 103.2, and 103.3** are hereby amended to read as follows:

103.1 General. The Fire Code shall be enforced by the Division of Fire Prevention. The Division of Fire Prevention is hereby established as a division of the Fire Department of the City of McKinney, Texas and shall operate under the supervision of the Chief of the Fire Department. The function of the department shall be the implementation, administration, and enforcement of this Code.

103.2 Appointment. The Fire Marshal in charge of the Division of Fire Prevention shall be appointed by the Fire Chief on the basis of proper qualifications.

103.3 Deputies. The Chief of the Fire Department may detail such members of the Fire Department as deputies, inspectors, and other technical officers as shall from time to time be necessary and each member so assigned shall be authorized to enforce the provisions of the *International Fire Code*.

(6) **Section 105.3.3** is hereby amended to read as follows:

1053.3.3 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.

(7) **Section 105.6.27** is hereby amended to read as follows:

105.6.27 LP-Gas. An operational permit is required for:

1. Storage and use of LP-Gas.

Exception: a permit is not required for individual containers with a 20-gallon (9.0 kg) water capacity or less serving occupancies in Group R-3.

2. Operation of cargo tankers that transport LP-Gas.

(8) **Section 105.6.47** is hereby amended to read as follows:

105.6.47 Temporary membrane structures and tents. An operational permit is required to operate an air-supported temporary membrane structure, a temporary special event structure or a tent having an area of 400 square feet or greater.

Exceptions: Tents used exclusively for recreational camping purposes.

(9) **Section 105.6.47.1** is hereby amended by adding the following:

105.6.47.1 Cooking Tent. An operational permit is required for the operation of a cooking tent.

(10) **Section 105.6** is hereby amended by adding the following:

105.6.51 Model Rocketry. An operational permit is required for the demonstration and use of model rockets, in accordance with NFPA 1122.

105.6.52 Parade Floats. An operational permit is required for the operation of a parade float.

105.6.53 Fire Fighter Air Replenishment System. An operational permit is required to maintain a FARS.

(11) **Section 105.7** is hereby amended to read as follows:

105.7 Required construction permits. The fire code official is authorized to issue construction permits for work set forth in Sections 105.7.1 through 105.7.28.

(12) **Section 105.7.25** is hereby amended to read as follows:

105.7.25 Temporary membrane structures and tents. An operational permit is required to operate an air-supported temporary membrane structure, a temporary special event structure or a tent having an area of 400 square feet or greater.

Exceptions: Tents used exclusively for recreational camping purposes.

(13) **Section 105.7** is hereby amended by adding sections **105.7.26 through 105.7.28** to read as follows:

105.7.26 Fire Fighter Air Replenishment System. A construction permit is required for installation of or modification to a FARS. The construction permit application shall include documentation of an acceptance and testing plan as specified in Section L105.

105.7.27 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.

105.7.28 Emergency and Standby Generators. Construction permits are required for the installation or modification of an emergency or standby generator, as specified in Section 604.

(14) **Section 106** is hereby amended to read as follows:

106.1 Permit fees. A permit shall not be issued until the fees have been paid, nor shall an amendment to a permit be released until the additional fee, if any, in Appendix A, “Schedule of Fees,” to the Code of Ordinances, City of McKinney, Texas, has been paid.

106.2 Inspection fees. An inspection or re-inspection shall not be scheduled until the applicable fee in Appendix A, “Schedule of Fees,” to the Code of Ordinances, City of McKinney, Texas, has been paid.

106.3 Schedule of fees. Fees shall be assessed in accordance with Appendix A, “Schedule of Fees,” to the Code of Ordinances, City of McKinney, Texas.

106.4 Work commencing before permit issuance. Any person, firm, partnership, corporation, association, or other entity who commences any work, activity, or operation regulated by this code before obtaining the necessary permits shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be fined in the sum of not more than $2,000.00, and each day work continues shall constitute a separate and distinct violation.

(15) **Section 107.2** is hereby amended by adding a new Section 107.2.3 to read as follows:

107.2.3 Inspection fees applicability. The Fire Chief or his designated representative shall inspect all buildings, premises, or portions thereof as often as may be necessary. Inspection fees shall be in accordance with Section 106 of this code. If the Fire Chief or his designee is required to make follow-up inspections after the initial in-

spection and re-inspection to determine whether a violation or violations observed during the previous inspection have been corrected, a fee shall be charged. The occupant, lessee, or person making use of the building or premise shall pay said fee or fees within thirty (30) days of being billed as a condition to continued lawful occupancy of the building or premise.

(16) **Section 109.1** is hereby amended to read as follows:

109.1 Appeals. Whenever the Fire code official shall disapprove an application or refuse to grant a permit applied for, or when it is claimed that the provisions of this Code do not apply or that the true intent and meaning of this Code have been misconstrued or wrongly interpreted, the applicant may appeal from the decision of the code official to the Fire Chief within thirty (30) days from the date of the decision appealed.

(17) **Section 110.3.5** is hereby amended by adding a new Section 110.3.5 to read as follows:

110.3.5 Citations. It is the intent of this department to achieve compliance by the traditional means of inspection, notification, granting of reasonable time to comply and re-inspection. After all reasonable means to gain compliance have failed, or when a condition exists that causes an immediate and/or extreme threat to life, property or safety from fire or explosion, the Fire Chief or his designee who has the discretionary duty to enforce a code or ordinance may issue a notice to appear (citation) for the violation. Citations shall be issued only by qualified personnel as designated by the Fire Chief.

Notwithstanding any other provision of this Code or of the International Fire Code a citation may be issued without prior notice and the opportunity to correct the condition or violation.

(18) **Section 110.4** is hereby amended to read as follows:

110.4 Violation penalties. Any person, firm, partnership, corporation, association, or other entity violating any provision of this article or of any Code provision adopted herein shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be fined in the sum of not more than $2,000.00, and each day such violation continues shall constitute a separate and distinct violation.

(19) **Section 110.4** is hereby amended by adding a new **Section 110.4.2** to read as follows:

Section 110.4.2 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 of occupant of the subjected property, exercises actual

or apparent control over the subject property, or is listed as the water customer of the city for the subject property.

(20) **Section 112.4** is hereby amended to read as follows:

112.4 Failure to comply. Any person, firm, partnership, corporation, association, or other entity who shall continue any work after having been served with a stop work order, except any work as that person is directed to perform to remove a violation or unsafe condition, shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be fined in a sum of not more than $2,000.00, and each day such violation continues shall constitute a separate and distinct violation.

(21) **Section 202** is hereby amended to add certain new definitions to be inserted in the existing list of definitions in alphabetical order and to amend certain of the current definitions, in whole or in part, to read as follows:

ADDRESSABLE FIRE DETECTION SYSTEM. Any system capable of providing identification of each individual alarm-initiating device. The identification shall be in plain English and as descriptive as possible to specifically identify the location of the device in alarm. The system shall have the capability of alarm verification.

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 limited to the following:

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Dialysis centers
- Sedation dentistry
- Surgery centers
- Colonic centers
- Psychiatric centers

ANALOG INTELLIGENT ADDRESSABLE FIRE DETECTION SYSTEM. Any system capable of calculating a change in value by directly measurable quantities (voltage, resistance, etc.) at the sensing point. The physical analog may be conducted at the sensing point or at the main control panel. The system shall be capable of compensating for long-term changes in sensor response while maintaining a constant sensitivity. The compensation shall have a preset point at which a detector maintenance signal shall be transmitted to the control panel. The sensor shall remain capable of detecting and transmitting an alarm while in maintenance alert.

ATRIUM. An opening connecting three or more stories … {remaining text unchanged}

COOKING TENT. A tent or multiple tents without sidewalls or drops, with an aggregate area of no greater than 200 square feet that is used to cover cooking appliances or devices, and is not occupied by the public. Cooking tents shall meet NFPA 701.

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 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 purpose 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 purpose by combustion, deflagration, 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 … {remainder of text unchanged}.

HIGH-PILED COMBUSTIBLE STORAGE. Storage of combustible materials in closely packed piles or combustible materials on pallets, in racks or on shelves where the top of storage is greater than 12 feet (3658 mm) in height. When required by the Fire code official, high-piled combustible storage also includes certain high-hazard commodities, such as rubber tires, Group A plastics, flammable liquids, idle pallets and similar commodities, where the top of storage is greater than 6 feet (1829 mm) in height.

Any building exceeding 6,000 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 storage height.

HIGH-RISE BUILDING. A building with an occupied floor located more than 55 feet 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 a 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 umber 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

(22) **Section 202** is hereby amended by adding the following sentence to the end of the current definition of “Manual Dry” under the heading “STANDPIPE, TYPE OF”:

The system must be supervised as specified in Section 905.2.

(23) **Section 307** is hereby amended by deleting the current section and replacing it with a new Section 307 to read as follows:

Section 307, Open Burning. Please refer to Article III, entitled “Open Burning,” of Chapter 42, “Fire Prevention and Protection,” of the Code of Ordinances City of McKinney, Texas, as amended, for the Open Burning provisions of the Fire Code.

(24) **Section 308.1.4** is amended to read as follows:

308.1.4 Open-flame cooking devices. Open-flame cooking devices, charcoal grills, and other similar devices used for cooking shall not be located or used on combustible balconies, decks, sidewalks or within 10 feet (3048 mm) of combustible construction or opening to a building.

Exceptions:

Where the cooking device is gas-fueled and meets one of the following conditions:

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 pounds (9.08 kg) LP-gas capacity] with an aggregate LP-gas capacity not to exceed 100 lbs. (5 containers).
2. Multifamily dwellings, where buildings, balconies and decks are protected by an approved automatic sprinkler system, 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 40 lbs. (2 containers).
3. {no change}

(25) **Section 308.1.6.2, Exception #3** is hereby amended to read as follows:

Exceptions:

3. Torches or flame producing devices in accordance with Section 308.1.3.

(26) **Section 308.1.6.3** is hereby amended to read as follows:

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

(27) **Section 311.5** is hereby amended to read as follows:

311.5 Placards. The fire code official is authorized to require marking of any vacant or abandon 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.

(28) A new **Section 320** entitled Parade Floats is hereby adopted to read as follows:

Section 320
Parade Floats

320.1 Scope. Parades and parade floats shall be constructed and operate in accordance with this section.

320.2 Permits. A permit shall be required as set forth in Sections 105.6 and 105.7.

20.3 Definitions. The following definitions shall apply to this section.

320.1.1 Large parade. Expected attendance between 2,000 and 20,000.

320.1.2 Small parade. Under an expected attendance of 2,000.

320.1.3 Parade float. A decorated platform, either built on a vehicle or towed, which is a component of a parade.

320.4 Decorative materials. Decorative materials on parade floats shall be non-combustible or flame retardant.

320.5 Construction materials. All materials used for construction of parade floats must be flame retardant and in compliance with City ordinance, Fire Code and applicable codes and standards.

320.6 Combustible clearance. A 12″ minimum clearance of decorative materials shall be maintained around vehicle and/or generator exhaust pipe(s).

320.7 Fire protection. Each parade floats and towing apparatus shall be provided with a minimum 2A-10B:C rated portable fire extinguisher that is readily accessible and displayed in an approved manner.

320.7.1 Inspection. Portable fire extinguishers shall be serviced, tagged and inspected in accordance with Section 906.

320.8 Portable generators. Portable generators shall be secured from tipping and subject to approval by the Fire code official. Refueling operations shall not take place while the generator is located on the parade float.

320.8.1 Location. Portable generators are not permitted to be located within the parade float and shall be located on the towing apparatus a minimum of 3 feet from the float body.

320.8.2 Authorization. Written approval from the *Fire code official* is required to use a portable generator.

320.9 Electrical. The use of extension cords and power strips shall comply with Section 605.

320.10 Open flames. The use of open flames shall be prohibited.

320.11 Flammable and combustible liquids. The use and storage of flammable and combustible liquids shall be prohibited on both the parade float and towing apparatus.

320.12 Ammunition, small arms, dangerous weapons. The use and storage of ammunition, small arms and dangerous weapons shall be prohibited.

320.13 Smoking. No smoking shall be permitted on the parade float prior to and around a parade float while in motion.

320.14 Lighting. Parade float and towing apparatus lighting shall be kept to a minimum. If provided, lighting shall be located in such a manner as to not come in contact with decorative features of the parade float.

320.15 Fireworks. No fireworks or pyrotechnic devices shall be permitted on a parade float or towing apparatus.

320.16 Inspections. Parade floats and towing apparatus shall be inspected by the *Fire code official* prior to the event.

320.16.1 Red tag. If there are no fire extinguishers on the parade float, or if the parade float is constructed of flammable non-approved materials, or there is some other violation, the float will be red tagged and not allowed to participate in the parade until these items are corrected.

320.17 Special event approval. The Parade Marshal, and/or event organizer, shall obtain approval of the proposed parade route and/or obtain a Special Event Permit from the City of McKinney Special Event Committee.

320.18 Operational parameters. The following operational parameters shall apply:

1. The Parade Marshal must ensure an adequate number of volunteers/assistants along the route who are easily identifiable.

2. The Parade Marshal should complete information contained in the special event application at least 45 days prior to the event date.

3. The Parade Marshal should meet with participants prior to the parade to discuss all requirements and restrictions.

4. The Parade Marshal should ensure that the presence of media organizations on the parade route should not interfere with, slow, or stop the routine progress of a parade.

5. An Event Plan must be created and submitted to the Special Events Committee. This plan will be distributed through the members of Special Events committee to the appropriate city departments for review.

6. The Event Plan must contain a Crowd Management/Emergency Contingency plan provided for and approved by the office of Emergency Management, Police Department and Fire Department.

7. For all large and small parades, planners should provide (through established media vehicles) an awareness program to include broadcast of event schedule, parade route, first aid locations, public transport locations, restroom facilities, handicap areas and parade ‘rules’ no less than 24 hours prior to the parade.

8. If there is school age appeal, the parade organizer must involve area school districts in the planning process to alleviate school absences and encourage on-campus participation.

9. The parade participants will not have squirt guns, silly string and other items that could lead to crowd control issues.

10. No candy or materials may be thrown from parade participants to spectators along the parade route. The distribution of gifts, merchandise, literature or other materials along the parade route is prohibited.

11. Parade participants will not jump from or onto a float or motorized vehicle.

12. All owners and drivers of parade-related vehicles, and all other parade participants must sign ‘hold harmless’ agreements protecting the City of McKinney and/or the parade organization.

13. No tandem trailers or other trailers, where the wheels are in the center of the trailer, are allowed for units that have people on them.

14. The use of flatbeds, trucks, buses, or floats are recommended for any mega or large parades where crowd attendance is anticipated to be such that visibility and security are a reasonable concern.

15. Metal interlocking barricades when required by permit along the parade route, should be positioned at street level and not on public sidewalks.

16. The hitch used to attach the float to the pulling vehicle shall be a factory receiver type or welded pickup style bumper. No "bolt-on" type hitches will be allowed. When using a large truck, a drop-hitch must be used and should be at least 12 inches from hitch to the ground. Safety chains or straps shall be used to secure the tow vehicle to the trailer.

17. If horses are entrants in the parade, the parade organizer must assign pooper-scooper to clean up behind the horses.

18. The parade route should be planned to spread spectators over a larger number of blocks to reduce any over-crowding situation along the route.

19. Trash maintenance service must be provided by the parade organizer during and immediately following the hours of the parade.

20. Portable restrooms and trash containers to meet the anticipated attendance at parade must be provided by parade organizer or an agreement in place to utilize facilities at local establishments.

21. All drivers of floats or motorized vehicles must provide proof of vehicle liability insurance and a valid Texas Driver's license to the Parade Marshall at least 48 hours before the parade.

22. A float can be no wider than 12 feet while in the parade or 8 feet while being towed without permit and police escort anywhere else in the City of McKinney. In height, the tallest part of the deck people can stand on is to be no taller than 4 feet from the ground. No prop or item added to the deck can be taller than 12 feet from the top of the highest point to the ground

23. All float participants standing on floats or any other motorized vehicles must wear safety belts, have hand holds or vertical stanchions, mounted to the float chassis, with a u-shaped piece welded to the top bracket, or back supports securing them in place while the float or vehicles are in motion.

24. Color coded credentials that are large enough to view from 10 feet away are to be worn by all event staff, dignitaries, parade participants, and media to gain access to any restricted areas.

25. No ticker tape or confetti is to be used on the actual parade route by parade participants during the parade due to the creation of fire hazards, engine air-intake problems and clean-up costs.

26. The McKinney Fire Department ("MFD") and McKinney Police Department ("MPD") may exercise the authority to 'veto' any aspect of the parade that they feel poses an unreasonable risk of injury or danger to the public. While exercise of this veto should be prudent, and certainly permit event producers to revise any objectionable part of a plan, public safety must ultimately be the responsibility of the police department and fire department, and related agencies.

27. The Command Post must be established for all mega parades. This Command Post may contain the following staff and equipment:

    a. Two-way communications on all MFD and MPD and local police safety channels.

b. A designated communications dispatcher.

c. A clear channel to parade (or event) producers.

d. Copies of parade line-by-line scripts or other production documents.

e. Lists of local emergency contact numbers including hospitals, FCC, FAA, EPA, airport control towers, any area military bases, all Federal law enforcement officials, home and work numbers of key MFD and MPD officials, and key utility officials.

f. A least one command level MPD and MFD official.

g. A representative of other involved public safety agencies.

h. A list of appropriate building managers and security department telephone numbers when a large event is to take place well within the defined event area.

28. If MPD believes it is necessary, aerial spotters on buildings shall be provided and in communication with the Command Post.

29. A sufficient number of police motorcycle officers must be hired to continuously 'ride the barricades' to enforce keeping the parade route clear of spectators.

30. Most medium and large parades should have a McKinney Fire Department engine as the last unit in the parade, followed only by a police car, if it is found such a follow-car is necessary.

31. The McKinney Police Department and Office of Emergency Management officials as part of its planning for large events, will review a crowd disbursement plan in addition to routine security anticipation.

(29) A new **Section 321** entitled EMS Elevator is hereby adopted to read as follows:

SECTION 321
EMS Elevator

Where elevators are provided in buildings, the elevator, or not less than one elevator per bank, shall be provided for fire department emergency access to all floors. A single elevator shall constitute a bank. 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.

(29) A new **Section 401.9** is hereby amended to read as follows:

401.9 False alarms and nuisance alarms. False alarms and nuisance alarms shall not be given, signaled, or transmitted of caused or permitted to be given, signaled, or transmitted in any manner.

(30) A new **Section 401.9.1** is hereby amended to read as follows:

401.9.1 Violations. False alarms as defined by this ordinance and the Texas Penal Code, Section 46.02, shall be enforced according to the corresponding legal procedures. False alarms as defined by the Code of Ordinances of the City of McKinney, Texas, Chapter 10 – "Alarms" shall be governed by said ordinance.

(31) **Section 403.5** is hereby amended 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 Group E occupancies 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 Section 403.5.1 through 40.5.3.

(32) **Section 405.4** is hereby amended 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 condition to simulate the unusual conditions that occur in case of fire.

(33) **Section 501.4** is hereby amended to read as follows:

501.4 Timing of Installation. When fire apparatus access roads or 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.

(34) **Section 503.1.1** is hereby amended to insert the following language beginning in a new paragraph situated between the end of the current paragraph and the list of exceptions:

For purpose of design, measurements shall not utilize arterial/thoroughfare, or collector/distributor roads as apparatus access roads.

Except for one- or two-family dwellings, the path of measurement shall be along a minimum of a ten foot (10') wide unobstructed level pathway around the external walls of the structure and all barriers. Pathway shall be a level and traversable surface and shall not exceed 3% grade. A continuous row of parking between the fire lane and the structure shall be considered a barrier. Landscaping and screening may also be considered a barrier based upon the location of type.

The provisions of this section notwithstanding, fire lanes may be required to be located within thirty feet (30') of a building if deemed to be reasonably necessary by the Fire Chief to enable proper protection of the building.

Fire lane and access easements shall be provided to serve all buildings through parking areas, to service entrances of buildings, loading areas and trash collection areas, and other areas deemed necessary to be available to fire and emergency vehicles. The Fire Chief is authorized to designate additional requirements for fire lanes where the same is reasonably necessary so as to provide access for fire and rescue personnel.

Fire lanes provided during the platting process shall be so indicated on the plat as a fire lane easement. Where fire lanes are provided and a plat is not required, the limits of the fire lane shall be shown on a site plan and placed on permanent file with the Fire Marshal and Planning Department.

No owner or person in charge of any premises served by a fire lane or access easement shall abandon, restrict, modify, or close any fire lane or easement without first securing from the City of McKinney approval of an amended plat or other acceptable legal instrument showing the removal of the fire lane easement.

(35) **Section 503.1** is hereby amended to add a new Section 503.1.4 to read as follows:

503.1.4 Two points of access. A minimum two points of approved fire apparatus access shall be provided for each building, structure and subdivision. The two points of access shall be a minimum of 140 feet (140') apart as measured edge of pavement to edge of pavement.

(36) **Section 503.1** is hereby amended to add a new Section 503.1.5 to read as follows:

503.1.5 Residential subdivisions. The maximum dead-end cul-de-sac length shall not exceed six hundred feet (600') as measured from the centerline of the intersecting street to the center point of the radius.

Exception: Where an approved automatic fire suppression system is installed per Section 903 is provided.

(37) **Section 503.2.1** is hereby amended to read as follows:

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 24 feet, 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.

Fire lane dimensions established by Appendix D, or other sections of this Code, shall be superseded by the criteria established by this section.

The requirement of Section D105 shall remain unchanged.

> **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.

(38) **Section 503.2.2** is hereby amended to read as follows:

503.2.2 Authority. The 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 response.

(39) **Section 503.2.3** is hereby amended to read as follows:

503.2.3 Surface. Construction of all fire lanes shall be in accordance with McKinney Street Design Manual and this section.

Fire lanes shall be constructed of an asphalt or concrete surface capable of supporting the imposed loads of a 2-axle, 85,000 lb. fire apparatus. The design shall be based on the geotechnical investigation of the site; but, shall meet the stated minimums.

The fire lane shall be constructed with a minimum 6 in. thick, 4000 PSI concrete with steel reinforcing of No. 4 bars spaced 18 in. on centers in each direction. The base course thickness shall be a minimum of 6 in. in thickness and shall consist of lime or cement stabilization as recommended in the Geotechnical Report.

Where stabilization is not practical, the standard pavement thickness may be increased by 1 in. and a minimum of 6 in. flexible base course in lieu of treating the sub-grade with lime or cement.

The base course shall consist of a minimum 6 in. flexible base course over a compacted sub-base to 95% Standard Proctor density, or 6 in. of asphalt base as approved by the City.

Whenever forty percent (40%) of existing, non-conforming fire lanes are replaced within a twelve-month period, the entire fire lane shall be replaced according to current standards.

All fire lanes shall be maintained and kept in a good state of repair at all times by the owner and the City of McKinney shall not be responsible for the maintenance thereof. It shall further be the responsibility of the owner to ensure that all fire lane markings required by Section 503.3 be kept so that they are easily distinguishable by the public.

(40) **Section 503.2.4** is hereby amended as follows:

Section 503.2.4 Turning radius. The required turning radius of a fire apparatus access road shall be in accordance with this section.

Any such fire lane shall either connect both ends to a dedicated public street or fire lane or be provided with an approved turnaround having a minimum outer radius of fifty feet (50'). If two or more interconnecting lanes are provided, interior radius for that connection shall be required in accordance with the following:

24-foot fire lane – minimum radius 30 feet
26-foot fire lane – minimum radius 30 feet
30-foot fire lane – minimum radius 20 feet

Intersecting fire lanes of dissimilar widths shall be provided with turn radii based upon the shortest width.

Fire lane dimensions established by Appendix D, or other sections of this Code, shall be superseded by the criteria established by this section.

The requirements of Section D105 shall remain unchanged.

(41) **Section 503.2.5** is hereby amended to read as follows:

503.2.5 Dead ends. Dead-end fire apparatus access roads shall not exceed 150 feet and shall be provided with an approved fire apparatus turn around.

(42) **Section 503.2.7** is hereby amended to read as follows:

Section 503.2.7 Grade. The grade of the fire apparatus access road shall be within the limits established by the fire code official. In no case shall the grades along a fire apparatus access road exceed the following:

Along the fire apparatus access road – 6%
Cross slope – 5%

Exception: The code official shall have the authority to adjust the grade along the fire lane when necessary for fire or rescue operation or based upon the hazard being protected or general topography of the lot. In no case shall the grade exceed nine

percent (9%). Written approval from the fire code official shall be required.

(43) **Section 503.2.8** is hereby amended to read as follows:

Section 503.2.8 Angles of approach and departure. The angles of departure for a fire apparatus access road shall be within the limits established by the fire code official. In no case shall the grades exceed the following:

Maximum angle of approach – 5%
Maximum angle of departure – 5%

Exception: The code official shall have the authority to adjust the grade along the fire lane when necessary for fire or rescue operations or based upon the hazard being protected or general topography of the lot. Written approval from the fire code official shall be required.

(44) **Section 503.3** is hereby amended 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 shall 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 (25’) intervals on the red border markings along both sides of the fire lanes. Where a curb is available, the striping shall be on both the horizontal and vertical faces of the curb.

2. Signs – Signs shall read “NO PARKING FIRE LANE” or "FIRE LANE NO PARKING” and shall be twelve inches (12”) wide and eighteen inches (18”) high. Signs shall be painted on a white background with letters and borders in red, using not less than two-inch (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. Signs may be installed on permanent buildings or walls or as approved by the fire code official.

(45) **Section 503.4** is hereby amended 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, whether attended or unattended for any period of time. The minimum widths and clearances established in Section 503.2.1 through 503.2.2 and any area marked as a fire lane as described in Section 503.3 shall be maintained clear at all times. Unoccupied vehicles or other obstructions in the fire lane may be removed or towed at the expense of the registered owner.

(46) **Section 503.4.2** is hereby added to read as follows:

503.4.2 Fire lane violations

1. The registered owner of a vehicle parked or standing in a fire apparatus access road shall be presumed to be the violator and may be held jointly and severally liable for the violation.

2. A person, firm, partnership, corporation, association, or other entity shall be presumed to be the violator and may be held jointly and severally liable for the violation if the person, firm, partnership, corporation, association, or other entity is the owner of, custodian of, or otherwise exercises actual or apparent control over equipment, materials, or other objects obstructing a fire apparatus access road.

3. The owner, occupant, or leaseholder of the property or business directly adjacent to the portion of the fire apparatus access road obstructed shall be presumed to be the violator and may be held jointly and severally liable.

(47) **Section 503.7** is hereby added to read as follows:

503.7 Preemption device. When mechanically operated gates or barriers are provided, or required, across a fire apparatus access road, an approved bidirectional emergency vehicle traffic preemption device shall be provided compatible with the fire department's apparatus.

(48) **Section 505.1** is hereby amended to read as follows:

505.1 Address identification. Approved numerals of a minimum six inches (6") height and of a color contrasting with the background designating the address shall be placed on all new and existing buildings or structures in a position as to be plainly visible and legible from the street or road fronting the property and from all rear alleyways/access.

Where buildings do not immediately front a street, approved six-inch (6") height building numerals or addresses and 3-inch (3") height suite/apartment numerals of a color contrasting with the background of the building shall be placed on all new and existing buildings or structures. Numerals or addresses shall be posted on a minimum twenty-inch by thirty-inch (20" X 30") background on border.

Where access is provided by means of a private road and 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.

Address numbers shall be Arabic numerals or alphabet letters. The minimum stroke width shall be 0.5 inches.

Where access is provided by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign of means shall be used to identify the structure.

> **Exception:** R-3 Single Family occupancies shall have approved numerals of a minimum three and one-half inches (3-½") 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.

(49) **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. Location, construction, and type of signage shall be reviewed and approved by the fire code official prior to installation.

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.
8. Shall be constructed of an outdoor, weather-resistant material.

(50) **Section 505.4** is hereby added to read as follows:

505.4 Address marking in parking garages. An approved sign displaying the building name and address with a minimum 1-inch high letters and numerals on a contrasting background in new and existing parking garages. The signs shall be located in each elevator lobby and at the entrance to each stairwell.

(51) **Section 506.1.2** is hereby amended to read as follows:

506.1.2 Key boxes for fire service elevator keys. Key boxes provided for fire service elevator keys shall comply with Section 506.1 and all of the following:

1. The key box shall be compatible with an existing rapid entry key box system in use in the jurisdiction and *approved* by the *fire code official*.

2. The front cover shall be permanently labeled with the words “Fire Department Use Only—Elevator Keys.”

3. The key box shall be mounted at each elevator bank at the lobby nearest to the lowest level of fire department access.

4. The key box shall be mounted 5 feet 6 inches above the finished floor to the right side of the elevator bank.

5. Contents of the key box shall include fire service elevator keys, elevator access tools, and information pertinent to emergency planning or elevator access.

6. In buildings with two or more elevator banks, a single key box shall be permitted to be used where such elevator banks are separated by not more than 30 feet (9144 mm). Additional key boxes shall be provided for each individual elevator or elevator bank separated by more than 30 feet (9144 mm).

   Exception: A single key box shall be permitted to be located adjacent to a *fire command center* or the nonstandard fire service elevator key shall be permitted to be secured in a key box used for other purposes and located in accordance with Section 506.1.

(52) **Section 506.1.3** is hereby added to read as follows:

506.1.3 Knox box locations. The key box shall be provided at the entrance to the sprinkler riser room and fire pump room. Additional key boxes shall be placed at the main entrance to a large building when determined by the fire code official it is necessary due to the size and remoteness from the fire sprinkler riser room and/or fire pump room.

(53) **Section 507.4** is hereby amended 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.

(54) **Section 507.5.1** is hereby amended to read as follows:

507.5.1 Where required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from a hydrant or a fire access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official. Notwithstanding the foregoing, fire hydrants shall be required as follows:

1. For Group R-3 and Group U occupancies, the distance requirement shall be 600 feet (183 m).

2. For buildings equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the distance requirement shall be 600 feet (183 m).

3. Spacing: As properties develop, fire hydrants shall be located at all intersecting streets and at the maximum spacing indicated in Table C105.1. Distances between hydrants shall be measured along the route that fire hose is laid by a fire apparatus from hydrant to hydrant, not as the "crow flies."

4. Protected Properties: Fire hydrants required to provide a supplemental water supply for automatic fire protection systems shall be located adjacent to the remote fire department connection, when provided.

5. Fire Hydrant Locations. Fire hydrants shall be located between 2 feet (2') to 6 feet (6') back from the curb or fire lane and shall not be located in the bulb of a cul-de-sac or within a turning radius.

6. Minimum Number of Fire Hydrants. There shall be a minimum of two (2) fire hydrants serving each property within the prescribed distances listed above. A minimum of one fire hydrant shall be located on each lot.

7. Non-Sprinklered Properties: For non-sprinklered properties, the spacing shall not be more than 300 feet.

1. **Section 507.5.4** is hereby amended 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 of fire protection system control valves in a manner that would prevent such equipment of 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.

(55) **Section 509.1.2** is hereby added 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.

(56) **Section 509.3** is hereby added to read as follows:

Section 509.3 Signage specifications. Where signage is required by this section, other provisions of this code, or where required by the fire code official, the construction and design shall comply with the McKinney Fire Department's Fire Marshal's Office (MFD-FMO) Sign Specification Guide. All required signage shall be approved by the fire code official prior to installation.

(57) Section 603.3.1 is hereby amended to read as follows:

03.3.1 Fuel oil storage in outside, above-ground tanks. Where connected to a fuel-oil piping system, the maximum amount of fuel oil storage allowed outside above ground without additional protection shall be 660 gallons (2498 L). The storage of fuel oil above ground in quantities exceeding 660 gallons (2498 L) shall comply with NFPA 31 and Chapter 57.

(58) **Section 603.3.2** and **Section 603.3.2.1** are hereby amended to read as follows:

603.3.2 Fuel oil storage inside buildings. Fuel oil storage inside buildings shall comply with Sections 603.3.2.1 through 603.3.2.5 and Chapter 57.

603.3.2.1 Quantity limits. One or more fuel oil storage tanks containing Class II or III *combustible liquid* shall be permitted in a building. The aggregate capacity of all tanks shall not exceed the following:

1. 660 gallons (2498 L) in unsprinklered buildings, where stored in a tank complying with UL 80, UL 142 or UL 2085 for Class III liquids, and also listed as a double-wall/secondary containment tank for Class II liquids.

2. 1,320 gallons (4996 L) in buildings equipped with an *automatic sprinkler* system in accordance with Section 903.3.1.1, where stored in a tank complying with UL 142 or UL 2085 as a double-wall/secondary containment tank.

3. 3,000 gallons (11 356 L) where stored in protected above-ground tanks complying with UL 2085 and Section 5704.2.9.7, and the room is protected by an automatic sprinkler system in accordance with Section 903.3.1.1.

(59) **Section 603.3.2.2** is hereby amended 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.

(60) **Section 607.2** is hereby amended to read as follows:

607.2 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. {No change to existing Exception.}
2. {No change to existing Exception.}
3. {No change to existing Exception.}
4. Tents, as provided for in Chapter 31.

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.

(61) **Section 807.5.2.2** is hereby amended 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 (50%) of the wall area.

(62) **Section 807.5.2.3** is hereby amended to read as follows:

807.5.3 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.

(63) **Section 807.5.5.2** is hereby amended 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 (50%) of the wall area.

(64) **Section 807.5.5.3** is hereby amended to read as follows:

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.

(65) **Section 901.4.6** is hereby amended by adding the following paragraph to read as follows:

Minimum riser room size shall be 36 sq. ft., with the minimum dimension being 6 ft.

(66) **Section 901.4.6.1** is hereby amended to read as follows:

901.4.6.1 Access. Fire pump and automatic sprinkler system riser rooms shall be directly accessible from the exterior of the structure. Access doors shall be a minimum of 3 feet (3') in width and six-feet eight-inches (6'8") in height. 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 on 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.

(67) **Section 901.4.6.2** is hereby amended to read as follows:

901.4.6.2 Marking on access door. Access doors for automatic sprinkler system riser rooms and fire pump rooms shall be labeled in accordance with the MFD-FMO Sign Specification Guide.

(68) **Section 901.4.6.4** is hereby amended to read as follows:

901.4.6.4 Lighting. Permanently installed artificial illumination with a minimum 90-minute battery backup shall be provided in the automatic sprinkler system riser room and fire pump rooms.

(69) **Section 901.4.6.5** is hereby added to read as follows:

Section 901.4.6.5 Fire protection equipment only. Fire pump and automatic sprinkler system riser rooms shall be limited to equipment that is intended for fire protection and operations.

(70) **Section 901.5** is hereby amended by adding the following language to the end of the current text:

Section 901.5 Installation acceptance testing. {Current text inserted without change.} All required tests shall be conducted by and at the expense of the owner or his representative. The Fire Department shall not be held responsible for any damages incurred in such test. Where it is required that the Fire Department witness any such test, such test shall be scheduled with a minimum of 48-hour notice to the Fire Chief or his representative.

(71) **Section 901.6.1** is hereby amended by adding a new **Section 901.6.1.1** to read as follows:

901.6.1.1 Standpipe testing. Building owners/managers must utilize a licensed fire protection company to 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 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 contractor 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, or farthest interior outlet, to verify that each inlet connection functions properly. There are 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 locking caps, the contractor shall install such locking caps for all FDC's as required by the *Fire code official*.

5. Upon successful completion of standpipe test, the contractor shall 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 as 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.

(72) **Section 901.6** is hereby amended by adding a new **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.

(73) **Section 901.7** is hereby amended to replace the first paragraph 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. … *{Remaining text unchanged}*

(74) **Section 901.8.2** is hereby amended to read as follows:

901.8.2 Removal of existing occupant-use hose lines. The fire code official is authorized to permit the removal of existing 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.

(75) **Section 903.1.1** is hereby amended 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.

(76) **Section 903.1.2** is hereby added to read as follows:

903.1.2 Spray booths and rooms. New and existing spray booths and spray rooms shall be protected by an approved automatic fire extinguishing system in accordance with Chapter 9.

(77) **Section 903.2** is hereby amended to read as follows and delete the exception:

903.2 Where required. {Existing text remains unchanged.}

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."

(78) **Section 903.2.6 Exception #2** is hereby amended to read as follows:

2. An automatic sprinkler system is not required where in-home residential 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.

(79) **Section 903.2.8** is hereby amended to read as follows:

903.2.8 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be installed throughout all buildings with a Groups R fire area, including townhomes.

(80) **Section 903.2.8.5** is hereby added to read as follows:

903.2.8.5 Storage rooms. Within Group R occupancies, storage areas that are leased or rented shall comply with Section 903.2.9.3.1.

(81) **Section 903.2.9.3** is hereby added to read as follows:

903.2.9.3 Self-service storage facility. An approved automatic sprinkler system shall be installed throughout all self-service storage facilities.

903.2.9.3.1. Vertical storage limits. A screen shall be installed at eighteen inches (18") below the level of the sprinkler heads to restrict storage above that level. This screen shall be a mesh of not less than one inch (1") nor greater than six inches (6") in size. The screen and its supports shall be installed such that all elements are at least eighteen inches (18") below any sprinkler heads, measured from the level of the sprinkler deflector.

(82) **Section 903.2.11.3** and the associated exceptions are hereby amended to read as follows:

903.2.11.3 Buildings more than 35 feet in height. An automatic sprinkler system shall be installed throughout buildings with a floor level, 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.

Exception: Open parking structures in compliance with Section 406.5 of the International Building Code, having no other

occupancies above the subject garage, and Section 903.2.11.9 of this Code.

(83) **Sections 903.2.11.7 through Section 903.2.11.9** are hereby added to read as follows:

903.2.11.7 High-piled combustible storage. For any building with a clear height exceeding 12 feet (4,572 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 sprinkler system and/or an approved automatic fire extinguishing system in accordance with Chapter 9 and Section 1504.

903.2.11.9 Buildings over 6,000 sq. ft. An automatic sprinkler system shall be installed throughout all buildings with a building area over 6,000 sq. ft. For the purpose of this provision, fire walls shall not define separate buildings. Building area is defined by the reflection of the roof, commonly referred to as “drip line.”

Exception: Open parking garages in compliance with Section 406.5 of the International Building Code where all of the following conditions apply:

a. The structure is freestanding.
b. The structure does not contain any mixed uses, accessory uses, storage rooms, electrical rooms, elevators or spaces used or occupied for anything other than motor vehicle parking.
c. The structure does not exceed 3 stories.
d. An approved fire apparatus access road is provided around

(84) **Section 903.3.1** is hereby amended to add the following language at the end of the current text in such section:

Section 903.3.1 Standards. {Retain existing text unchanged.} For any structure or building, for which a specific use, lease, or tenant cannot be identified, such as a speculative retail or office building, the sprinkler system shall be designed to Ordinary Hazard Group II, or as permitted by the *Fire code official*.

For any structure or building with a clear height in excess of 12 feet, the sprinkler system shall be designed to provide a minimum of Ordinary Hazard Group II.

For any structure or building with a clear height in excess of 12 feet, and with a primary use of storage or warehouse, the sprinkler system shall be designed to protect Class IV Commodities to the maximum storage height.

Exception: If a commodity type and storage height can be determined, the sprinkler system shall be designed accordingly to the approved commodity class and storage height.

All buildings 3 or more stories shall be provided with floor control valves.

(85) **Section 903.3.1.1.1** is hereby amended 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 *. . . {bulk of section unchanged} . . .* 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.

(86) **Section 903.3.1.1.3** is hereby added to read as follows:

903.3.1.1.3 Residential systems. In Group R occupancies, an NFPA 13 fire sprinkler system installed in accordance with 903.3.1.1 shall be required where the building is designed to exceed the maximum allowable factors of Tables 504.3, 504.4, or 506.2 of the 2018 International Building Code for the occupancy classification and construction type. For the purposes of this provision, fire walls shall not define separate buildings.

(87) **Section 903.3.1.2.1** is hereby amended to read as follows:

903.3.1.2.1 Balconies and decks. Sprinkler protection shall be provided for exterior balconies, decks and ground floor patios of dwelling units and sleeping units. {delete the remaining}

(88) **Section 903.3.1.2.3** is hereby replaced to read as follows:

Section 903.3.1.2.3 Attached garages and attics. Sprinkler protection is required in attached garages, and in the following attic spaces:

1. Attics that are used or intended for living purposes or storage shall be protected by an automatic sprinkler system.

2. Where fuel-fired equipment is installed in an unsprinklered attic, not fewer than one quick-response intermediate temperature sprinkler shall be installed above the equipment.

3. Attic spaces of buildings that are two or more stories in height above grade plane or above the lowest level of fire department vehicle access.

4. Group R-4, Condition 2 occupancy attics not required by Item 1 or 3 to have sprinklers shall comply with one of the following:

   4.1 Provide automatic sprinkler system protection.

   4.2. Provide a heat detection system throughout the attic that is arranged to activate the building fire alarm system.

   4.3. Construct the attic using noncombustible materials.

   4.4. Construct the attic using fire-retardant-treated wood complying with Section 2303.2 of the International Building Code.

   4.5. Fill the attic with noncombustible insulation.

(89) **Section 903.3.1.3** is hereby amended to read as follows.

Section 903.3.1.3 NFPA 13D sprinkler systems. Where allowed, 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.

(90) **Section 903.3.1.3.1** is hereby added to read as follows:

903.3.1.3.1 Design criteria. In addition to design criteria, 13D systems shall be designed as follows:

1. Piping shall be run vertically inside interior walls and horizontally between floors and unheated garages.

2. Garages shall be protected when a living space or portion thereof is provided above.

(91) **Section 903.3.1.4** is hereby added to read as follows:

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, pre-action, 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.

(92) **Section 903.3.5** is hereby amended to add a second paragraph immediately following the current paragraph to read as follows:

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

(93) **Section 903.4** is hereby amended to add a second paragraph immediately after the existing paragraph to read as follows:

{Existing text to remain unchanged.} 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, including accessible backflow preventers; and, except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

(94) **Section 903.4.2** is hereby amended to add a second paragraph immediately following the current paragraph to read as follows:

{Existing text to remain unchanged.} 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.

(95) **Section 905.2** is hereby amended 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. Manual dry standpipes shall be provided with a dry pipe valve.

(96) **Section 905.2.1** is hereby added to read as follows:

Section 905.2.1 Automatic Supply. An automatic supply for standpipes shall be required for the following occupancies/buildings:

1. Building defined as high-rise

2. Building four or more stories

   Exception: Unattached open parking garages

3. H occupancies

4. High-piled storage permitted occupancies

5. Hazardous material permitted occupancies

(97) **Sections 905.3.9** and **905.3.9.1** are hereby added to read as follows:

905.3.9. Building area. In buildings exceeding 10,000 square feet in area per story, including one-story buildings, Class I automatic wet or manual wet standpipes shall be provided where any portion of the building's interior area is more than 200 feet (60,960 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access.

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.

905.3.9.1 Class I standpipes shall be required in all occupancies in which the distance from a single accessible point for Fire Department ingress to any area within the structure exceeds two hundred fifty feet (250') along the route a fire hose is laid as measured from the fire lane as a single route.

(98) **Section 905.4 Items 1, 3, and 5** are hereby amended and **Item 7** is hereby added 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.

2. {No change.}

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 {remainder of text unchanged}

4. {No change.}

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 interior exit stairway with stair access to the roof provided in accordance with Section 1011.12.

6. {No change.}

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.

(99) **Section 905.9** is hereby amended to add a second controlling paragraph after the Exceptions to the existing paragraph to read as follows:

{Existing text to remain unchanged.} 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.

(100) **Section 907.1.4** is hereby added to read as follows:

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

(101) **Section 907.2.1** is hereby amended to read as follows:

907.2.1 Group A. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.6 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. 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: {No change to first sentence.}

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.

(102) **Section 907.2.3** is hereby amended to read as follows:

907.2.3 Group E. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5.2.2 and installed in accordance with 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 one hundred feet (100') of 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 educational and day care occupancies with and occupant load of less than 50 when provided with an approved automatic sprinkler system.

1.1 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.)

{No change to remainder of exceptions.}

(103) **Section 907.2.6.4** is added to read as follows:

907.2.6.4 Group I-4. An automatic smoke detection system shall be installed in egress corridors in Group I-4 facilities. The system shall be activated in accordance with Section 907.4.

907.2.6.4.1 Manual fire alarm box. A manual fire alarm box shall be provided in a constantly attended location.

907.2.6.4.1 Occupant notification. Occupant notification shall be required as per Section 907.5.3

(104) **Section 907.2.13, Exception 3** is hereby amended 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.

(105) **Section 907.4.2.7** is hereby added to read as follows:

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

(106) **Section 907.5.3** is hereby added to read as follows:

907.5.3 Occupant notification. Occupant notification in accordance with this section and 907.5 shall be required for all new construction, or existing construction complying with the International Building Code, for renovations to existing buildings, tenant spaces, changes in occupancy, replacement or modification of the existing fire alarm system, or as required by the *Fire code official*, for all buildings or spaces provided with an approved automatic sprinkler system.

(107) **Section 907.6.1.1** is hereby added 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 an addressable input (monitor) module may be wired Class B, provided the distance from the addressable module to the initiating device is ten feet or less.

(108) **Section 907.6.3** is hereby amended to delete all four Exceptions.

(109) **Section 907.6.3.1.1** is hereby added to read as follows:

Section 907.6.3.1.1 Graphical annunciation. Graphical annunciation of initiating devices shall be provided for large, complex floor plans where required by the fire code official or other sections of this code.

(110) **Section 907.6.3.2** is hereby added to read as follows:

907.6.3.2 Communication requirements. All alarm systems, new or replacement, shall transmit alarm, supervisory and trouble signals descriptively to the approved central station, remote supervisory station or proprietary supervising station as defined in NFPA 72, with the correct device designation and location of addressable device identification. Alarms shall not be permitted to be transmitted as a general alarm or zone condition.

(111) **Section 907.6.6** is hereby amended to add a sentence to the final paragraph to read as follows:

See 907.6.3 for the required information transmitted to the supervising station.

(112) **Section 907.6.7** is hereby added to read as follows:

907.6.7 Waterflow notification. When required by Section 903.4.2, an exterior audible and visible notification device shall be provided on the exterior of the building and shall be located above the Fire Department Connection. The notification device shall operate on a waterflow alarm only, shall be non-silenceable and shall continue to operate after the panel is silenced on the condition the alarm was a waterflow alarm only. The notification device shall be wired from the fire alarm control panel as a dedicated latching circuit. Minimum candela rating for the notification device shall be 75 (cd) candela.

(113) **Section 907.9** is hereby added to read as follows:

907.9 Fire extinguishing systems. Automatic fire-extinguishing systems shall be connected to the building fire alarm system where a fire alarm system is required by another section of this code or is otherwise installed.

(114) **Section 907.10** is hereby added to read as follows:

907.10 Interconnection. Fire alarm systems installed in multi-building developments which share a common address shall be interconnected. Each building shall be provided with a fire alarm panel which reports back to a common location for signal transmission to the monitoring station. Each building shall be provided with full command and control of its system without the need to reset from the signal transmitting location. All alarms shall annunciate at a normally occupied location per 907.6.3.

(115) **Section 909.22** is hereby added 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 UL-listed 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.

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 system with a fire-resistance rating of not less than 2 hours.

909.22.1.2 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.

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.

(116) **Section 910.2, Exceptions 2 and 3** are hereby amended to read as follows:

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.

(117) **Section 910.2.3** is hereby added 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 (1,394 m2) 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.

(118) **Section 910.2.4** is hereby added to read as follows:

910.2.4 Exit access travel distance increase. Buildings and portions thereof used as a Group F-1 or S-1 occupancy where the maximum exit access travel distance is increased in accordance with Section 1017.2.2.

(119) **Table 910.3** is hereby amended to read as follows:

Change the title of the first row of the table from “Group F-1 and S-1” to include “Group H,” to now read as follows: “Group H, F-1, and S-1”.

(120) **Section 910.3.4, 910.3.4.1,** and **910.3.4.2** are hereby added 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 910.3.4.1 through 910.3.4.2.

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 Non-sprinklered 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.

(121) **Section 910.4.3.1** is hereby amended 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^2 per 0.4719 m^3/s) of smoke exhaust.

(122) **Section 910.4.4** is hereby amended 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.

(123) **Section 912.2.1** is hereby amended by adding the following text to the end of the current text:

Section 912.2.1 Visible location. Fire department connections shall be remotely located on the opposite side of the fire lane from the serviced building or at a distance approved by the fire code official. The FDC shall be on the street side of buildings or facing approved fire apparatus access roads; and, set back between 2 feet to 6 feet from the back of curb and provided with vehicle impact protection in accordance with Section 312.

FDCs shall be fully recognizable from the street, fire apparatus access road or nearest point of fire department vehicle access or as otherwise approved by the fire code official.

(124) **Section 912.2.2** is hereby amended to read as follows:

Section 912.2.2 FDC identification. New and existing fire department connections shall be identified in accordance with the MFD-FMO Sign Specification Guide. Additionally, the barrel shall be painted traffic red and provided with a 2-inch, white - 3M diamond-grade reflective tape stripe around the upper half of the barrel.

(125) **Section 912.2.3** is hereby added to read as follows:

Section 912.2.3 Hydrant distance. An approved fire hydrant shall be located between 7 feet to 10 feet to the fire department connection (FDC).

(126) **Section 912.2.4** is hereby added to read as follows:

Section 912.2.4 High rise buildings. A second redundant FDC shall be provided for all high-rise buildings, unless approved by the *Fire code official*.

(127) **Section 912.3** is hereby amended to read as follows:

912.3 Fire hose threads. All fire department connections shall be 5-inch Stotz.

(128) **Section 912.4** is hereby amended to add the following text to the end of the current text:

Section 912.4 Access. {Current text unchanged.} A minimum clear and unobstructed pathway of 10 feet shall be provided to access the fire department connection.

(129) **Section 912.5** is hereby amended to read as follows:

912.5 Signs. Signs shall be provided on all fire department connections serving automatic sprinklers, standpipes, or fire pump connections. Where the fire department connection does not serve the entire building, the sign shall indicate the portions of the building served. All signs shall comply with the MFD-FMO Sign Specification Guide.

(130) **Section 914.3.1.2** is hereby amended 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: {No change to exception.}

(131) **Section 916.9** is hereby amended by adding the following text to the end of the current text:

916.6 Signage. {Current text unchanged.} Signs shall comply with the MFD-FMO Sign Specification Guide.

(132) **Section 1006.2.2.7** is hereby added to read as follows:

1006.2.2.7 Electrical rooms. For electrical rooms, special exiting requirements may apply. Reference the electrical code as adopted.

(133) **Section 1009.1** is hereby amended by adding **Exception 3** to read as follows:

3. 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 and Chapter 11.

(134) **Section 1010.1.9.5, Exceptions 3 and 4** are hereby amended to insert a sentence at the beginning of each such Exception to read as follows:

Exceptions:

. {remains unchanged}

2. {remains unchanged}

3. Where a pair of doors serves an occupant load of less than 50 persons in a Group B, F, M or S occupancy. {Remainder unchanged}

4. Where a pair of doors serves a Group A, B, F, M or S occupancy {Remainder unchanged}

(135) **Section 1010.1.9.9** is hereby amended to add **Items 7 and 8** to read as follows:

7. Doors shall be equipped with panic and fire exit hardware controlling a manual switch under the bar that will unlock the door. All wiring and circuitry to the switch and power unit shall be fail-safe.

8. If a full building smoke detection system is not provided, approved smoke detectors shall be provided on both the access and egress sides of doors and in a location approved by the authority having jurisdiction of NFPA 72. Actuation of a smoke detector shall automatically unlock the door.

(136) **Section 1010.1.9.10, Item 5** is hereby amended to read as follows:

5. Panic or fire exit hardware shall be required, and operation of the panic or fire exit hardware shall release the electric lock.

(137) **Section 1015.8, Item 1** is hereby amended 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.

(138) **Section 1020.1** is hereby amended by adding **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.

(139) **Section 1029.1.1.1** is hereby deleted in its entirety.

(140) **Section 1031.2** is hereby amended to read as follows:

1031.2 Reliability. Required exit accesses, exits or 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. Security devices affecting means of egress shall be subject to approval of the Fire code official.

(141) **Section 1102** is hereby amended by adding the following definition:

WORK AREA. The portion or portions of a building consisting of all reconfigured spaces as indicated on the construction documents. Work area excludes other portions of the building where incidental work entailed by the intended work must be performed and portions of the building where work not initially intended by the owner is specifically required by this or other codes.

(142) **Section 1103.2** is hereby amended to read as follows:

1103.2 Emergency responder radio coverage in existing buildings. Existing buildings that do not have approved radio coverage for emergency responders within the building, based on the existing coverage levels of the public safety communications system of the jurisdiction at the exterior and all portions of the interior of the building, shall be equipped with such coverage according to one of the following:

{Conditions remain unchanged.}

(143) **Section 1103.3** is hereby amended by adding a sentence to the end of paragraph to read as follows:

Provide emergency signage as required by Section 606.3.

(144) **Section 1103.5.1** is hereby amended to add a sentence to read as follows:

Fire sprinkler system installation shall be completed within 24 months from date of notification by the fire code official.

(145) **Section 1103.5.4** is hereby added 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.

(146) **Sections 1103.7.7** and **1103.7.7.1** are hereby added to read as follows:

1103.7.7 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.

1103.7.7.1 Communication requirements. Refer to Section 907.6.6 for applicable requirements.

(147) **Section 1107 'MODIFICATION AND ALTERATIONS'** is hereby added to read as follows.

SECTION 1107
MODIFICATION AND ALTERATIONS

1107.1 Automatic sprinkler systems. Automatic sprinkler systems shall be provided throughout a building per Section 903 where:

1. The work area is required to be provided with automatic sprinkler protection in accordance with this Code; and,

2. The work area exceeds 50 percent of the building's floor area; or, in multi-level buildings where the work area on any floor exceeds 50 percent of that floor area.

1107.1.1 Six thousand (6,000) square feet. An automatic fire protection system shall be installed throughout existing buildings enlarged to 6,000 square feet or greater, regardless of its current square footage. For the purpose of this provision, new and/or existing fire wall shall not define separate buildings. Building area is defined by the reflection of the roof, commonly referred to as "drip line."

1107.2 Standpipes. Standpipe systems shall be provided throughout a building where:

1. The work area is required to be provided with automatic sprinkler protection per this section, and

2. Standpipes would be required in accordance with this Code.

1107.3 Fire alarm and detection. An approved fire alarm and detection systems shall be installed where:

1. The work area is required to be provided with fire alarm and detection system in accordance to this Code; or,

2. The work area exceeds 50 percent of the building's floor area; or, in multi-level buildings where the work area on any floor exceeds 50 percent of that floor area.

1107.4 Cumulative work. Where the cumulative work over a period of time is greater than or equal to 50 percent of the building's initial

floor area, the provisions of this section shall apply. Initial building floor area shall be determined by the building's original, or oldest available, building permit construction documents.

1107.5 Change of use. Where a change of use or hazard occurs, all provisions of this Code shall be required consistent with the new use.

(148) **Section 1203.1.10** is hereby amended to read as follows:

1203.1.10 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.

(149) **Section 1203.2** is hereby amended to read as follows:

1203.2 Where required. Emergency and standby power systems shall be provided where required by Sections 1203.2.1 through 1203.2.26 or elsewhere identified in this code or any other referenced code.

(150) **Section 1203.2.4** is hereby amended to read as follows:

1203.2.4 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.

- Covered and Open Malls, Section 907.2.19 and 914.2.3
- Group A Occupancies, Sections 907.2.1 and 907.5.2.2.4.
- Special Amusement Buildings, Section 907.2.11
- High-rise Buildings, Section 907.2.12
- Atriums, Section 907.2.13
- Deep Underground Buildings, Section 907.2.18

(151) **Section 1203.2.14** is hereby amended to read as follows:

1203.2.14 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)

(152) **Section 1203.2.15** is hereby amended to read as follows:

1203.2.15 Membrane structures. Emergency power shall be provided for *exit* signs in temporary tents and membrane structures in accordance with Section 3103.12.6. (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.

(153) **Section 1203.2.17** is hereby amended to read as follows:

1203.2.17 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 410.2.5
- Special Amusement Buildings (as applicable to Group A's), *International Building Code*, Section 411.1
- Smoke Protected Seating, Section 1029.6.2.

(154) **Section 1203.2.19** is hereby amended to read as follows:

1203.2.19 Covered and open mall buildings. Emergency power shall be provided in accordance with Section 907.2.19 and 914.2.3.

(155) **Section 1203.2.20** is hereby amended to read as follows:

1203.2.20 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.

(156) **Section 1203.2.21** is hereby amended to read as follows:

1203.2.21 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.

(157) **Section 1203.2.22** is hereby amended to read as follows:

1203.2.22 Elevator pressurization. Standby power shall be provided for elevator pressurization system as required by the *International Building Code*, Section 909.21.5.

(158) **Section 1203.2.23** is hereby amended to read as follows:

1203.2.23 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.

(159) **Section 1203.2.24** is hereby amended to read as follows:

1203.2.24 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.

(160) **Section 1203.2.25** is hereby amended to read as follows:

1203.2.25 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.

(161) **Section 1203.2.26** is hereby amended to read as follows:

1203.2.26 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.)

(162) **Section 1203.7** is hereby amended to read as follows:

1203.7 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.

(163) **Section 2304.1** is hereby amended to read as follows:

2304.1 Supervision of dispensing. The dispensing of fuel at motor fuel-dispensing facility 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.

Any time the qualified attendant of item 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.

(164) **Section 2401.2** is hereby deleted in its entirety.

(165) **Table 3206.2, footnote h** is hereby amended to read as follows:

h. 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 removal systems shall be required within these areas.

(166) **Table 3206.2** is hereby amended by adding **footnote j** to row title 'High Hazard' and 'Greater than 300,000' to read as follows:

j. High hazard high-piled storage areas shall not exceed 500,000 square feet. A 2-hour fire wall constructed in accordance with Section 706 of the *International Building Code* shall be used to divide high-piled storage exceeding 500,000 square feet in area.

(167) **Section 3310.1** is hereby amended to add the following language at the end of the current text:

{Current text remains unchanged.} When fire apparatus access roads are required to be installed for any structure or development, they shall be approved prior to the time of which construction has progressed beyond completion of the foundation of any structure.

(168) **Section 5601.1.3** is hereby amended to read as follows:

5601.1.3 Fireworks. The possession, manufacture, storage, sale, handling and use of fireworks are prohibited. The presence or use of fireworks within the jurisdiction of the City of McKinney in violation of this Ordinance is hereby declared to be a common and public nuisance. The restrictions of this section shall be applicable and in force throughout the territory of the City of McKinney, Texas, and extending for a distance outside the City limits for a total of 5,000 feet (5,000'); provided that this section shall not be in effect within any portion of such 5,000 feet (5,000') area which is contained within the territory of any other municipal corporation. The owner, lessee or occupant of the property or structure where fireworks are being stored or used shall be deemed responsible for violating this section.

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 display as allowed in Section 5608.

3. Pursuant to 217.042(c) of the Texas Local Government Code, the sale of fireworks outside of the City's limits does not fall within the definition of and is not prohibited as a common and public nuisance outside of the City's corporate limits only.

(169) **Section 5601.7.1** shall be added to read as follows:

5601.7.1 Documentation. The Fire Chief or his designee may seize and destroy illegal fireworks prior to a court appearance and photographs of such seized and destroyed fireworks will provide sufficient evidence of a violation of Section 3301.1.3 for the municipal court.

(170) **Section 5703.6** is hereby amended 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.

(171) **Section 5704.2.9.5** is hereby amended to read as follows:

5704.2.9.5 Above-ground tanks inside of buildings. Aboveground tanks inside of buildings shall comply with Sections 5704.2.9.5.1 through 5704.2.9.5.3.

(172) **Section 5704.2.9.5** is hereby amended by adding a new **Section 5704.2.9.5.3** to read as follows:

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 3404.2.9.7 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.

(173) **Section 5704.2.11.4** is hereby amended to read as follows:

Section 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.

(174) **Section 5704.2.11.4.2** is hereby amended 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.

(175) **Section 5704.2.11.4.3** is hereby added to read as follows:

5704.2.11.4.3 Observation wells. Approved sampling tubes of a minimum 4 inches (4”) 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 (12”) 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 sump at the corners of the excavation with a minimum of four (4) sumps. Sampling tubes shall be placed in the product line excavation within 10 feet (10’) of the tank excavation and one every 50 feet (50’) routed along product lines towards the dispensers, and a minimum of two (2) are required.

(176) **Section 6103.2.1.8** is hereby added 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 (20’).

(177) **Section 6104.2, Exception 2** is hereby added to read as follows:

Exceptions:

1. {Current exception becomes Exception 1 unchanged.}

2. Except as permitted in Sections 308.3 and 6104.3.2, LP-gas containers are not permitted in residential areas.

(178) **Section 6104.3.3** is hereby added to read as follows:

6104.3.3 Spas, pool heaters and other listed devices. Where natural gas service is not available, LP-Gas containers are allowed to be used to supply spa and pool heaters or other listed devices.

Such containers shall not exceed 250-gallon water capacity. *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 500 gallons aboveground or 1,000 gallon underground approved containers.

(179) **Section 6107.4** is hereby amended 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.

(180) **Section 6109.13** is hereby amended to delete the Exception in its entirety.

(181) **Section B105.2** is hereby amended by adding an Exception to read as follows:

Exception: A reduction in required fire-flow of up to 50 percent (50%), as approved*,* is allowed when the building is provided with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2. The resulting fire-flow shall not be less than 1,500 gallons per minute for the prescribed duration as specified in Table B105.1.

(182) **Table B105.2** is hereby amended by amending **Footnote a.**, to read as follows:

a. The reduced fire-flow shall not be less than 1,500 gallons per minute.

(183) **Section D104.2** is hereby amended by deleting the Exception in its entirety.

(184) **Section J101.1** is hereby amended to read as follows:

J101.1 Scope. New buildings shall have a building information sign(s), when required by the fire code official that shall comply with Sections J101.1 through J101.7. Existing buildings shall be brought into compliance, when required by the Fire code official, with Sections J101.1 through J101.9 when one of the following occurs:

(185) **Section L101.2** is hereby added to read as follows:

L101.2 Required locations. A FARS shall be provided in all new construction when any one of the following conditions occur:

1. Any new building 5 or more stories in height from the lowest level of fire department access.

2. Any building determined to be a high-rise.

3. Any new building with 2 or more stories below grade.

4. Any new building with a total area of 500,000 square feet or more in size.

5. Any new R-2 occupancy, or mixed-use occupancy, in which the total fire area exceeds 400,000 square feet and is 4 stories or more from the lowest level of fire department access.

(186) **Section L101.13.1** is hereby amended to read as follows:

L101.13.1 Location. Each stairwell shall have a supply riser. Fill stations for refilling breathing air cylinders shall be located as follows or otherwise as required by the fire code official:

1. Multi-level Buildings.

    a. Single stairwell, on all even floor levels.

    b. Two stairwells, on alternated floors between the stairwells

    c. Three or more stairwells.

        i. Central stairwell on all floors.

        ii. Alternating floors in other stairwells as determined by the fire code official.

2. Large-area buildings.

    a. At interior structural support columns, adjacent to interior fire department hose valves.

(187) **Section L101.13.4** is hereby added to read as follows:

L101.13.4 Identification. In large area buildings the supporting column where the fill stations are located shall be identified with a White 4-inch 3M Diamond Grade reflective striping at the ceiling and floor levels.

(188) **Section L103.1.1** is added to read as follows:

L103.1.1 Submittals. Plans and specifications shall be from a Firefighter Air Replenishment company and sealed by a Texas licensed PE.

(189) **Section L104.15** is hereby amended by adding a sentence to read as follows:

Air monitoring shall be required at a location approved by the fire code official.

(190) **Section L104.5** is amended to read as follows:

L104.5 Breathing air supply. The *FARS* shall be supplied by a minimum of one external mobile air connection in accordance with Section L104.14. Additional external mobile air connection may be required depending on the size of the facility and complexity. A stored pressure air supply shall be supplied by an external mobile air connection providing a means to bypass the stored pressure air supply located at the external mobile air connection.

(191) **Section L104.5.1** is amended to read as follows:

L104.5.1. Stored pressure air supply. A stored pressure air supply shall be required and designed based on Chapter 24 of NFPA 1901 except that provisions applicable only to mobile apparatus or not applicable to system design shall not apply. A stored pressure air supply shall be capable of refilling not less than 50 empty breathing air cylinders.

(192) **Section L104.5.1.2** is hereby added to read as follows:

L104.5.1.2 Location. Stored pressure air supply shall be located in the fire command room or fire protection equipment room as determined by the fire code official.

Section 4. The North Central Texas Council of Governments Region recommended Amendments that are attached hereto as Attachment A and incorporated herein as set forth in this Ordinance are also on file in the office of the City Secretary for permanent record and inspection. In the event of a conflict between the wording of any amendments to the *International Fire Code*, 2018 Edition, set out in this Ordinance and the amendments set out in the NCTCOG Amendments adopted by this Ordinance, the wording of the Amendments set out in this Ordinance shall control.

Section 5. Except as provided in this Ordinance, all ordinances, orders or resolutions heretofore passed and adopted by the City Council of the City of McKinney, Texas, are hereby repealed to the extent that said ordinances, orders or resolutions, or parts thereof, are in conflict herewith.

Section 6. If any section, subsection, paragraph, sentence, clause, phrase or word of this Ordinance, or the application thereof to any person or circumstance, shall to any extent be held invalid, void or unconstitutional by a court of competent jurisdiction, such holding shall not affect the validity of the remaining portions of this Ordinance, and the City Council hereby declares that it would have passed such remaining portions of this Ordinance despite such invalidity, which remaining portions shall remain in full force and effect.

Section 7. Any person, firm, partnership, corporation or association violating any provision of this Ordinance or of any code adopted herein shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be fined in the sum of not more than $2,000.00, and each day such violation continues shall constitute a separate and distinct violation.

Section 8. This Ordinance shall take effect and be in full force from and after its passage and publication, as provided by the Revised Civil Statutes of the State of Texas and the Home Rule Charter of the City of McKinney, Texas.

Appendix A – Schedule of Fees.

Chapter 42. Fire Prevention and Protection

101.1 General. All fees assessed for fire code permits and other applicable fees shall be in accordance with this section.

102.1 Fire Fee. A fee shall be assessed in accordance with this section as part of the Building Permit or other reviews as required by other City Departments.

102.1.2 Base fire plan and inspection fee

$0.05 per square foot.

103.1 Application Fee. Application fees shall be assessed on all applications in accordance with this section, or as outlined in Table 107. Application fees shall be paid at the time of application.

104.1 Operational and Construction Permit Fee. Permit fees shall be assessed In accordance with this section, or as outlined in Table 107. Any operational and construction permit fees assessed shall be paid prior to the release of permit. A permit is not issued until released by the FMO and all fees are paid. Worked performed on systems that have not been paid in full shall be considered as *working without a permit* and subject to fees in accordance with this section, or as outlined in Table 106.

1. Applicable permit fees shall be doubled for any system required to be permitted by this code in which the installation of said fire protection system has commenced without the issuance of a permit(s); also known as “working without a permit.”

2. Applicable permit fees shall be doubled for any system that has been permitted and in operation without first obtaining a final acceptance inspection from the MFD-FMO; also known as “release of system prior to approval.”

105.1 Inspection Fee. Inspection fees shall be assessed in accordance with this section, or as outlined in Table 107.

1. Fee of $100 will be assessed for any inspections in which the contractor does not show up.

2. Fee of $100 will be assessed for any inspection that is not cancelled within 24 hours prior to the scheduled inspection.

3. Fee of $100.00 will be assessed for any re-inspection.

106.1 Plan Review Fees. Plan review fees shall be assessed in accordance with this section, or as outlined in Table 107 of this Chapter.

1. Plan reviews (second and subsequent submittals) required by changes, additions or revisions shall be assessed a fee of $100. No fees shall be charged for any subsequent plan review of changes, additions, or revisions to plans which plan review was initiated solely by the fire chief, or his designee, for items that the fire chief failed to identify on a previous plan review.

2. Use of outside consultants for plan review, inspections, or both: Actual costs.

107.1 Fee Table and Standard Fees. Unless stipulated elsewhere in this section, a minimum fee of $100.00 (to include application fee) shall be assessed for any plan review and/or permits issued.

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TABLE 107 FIRE DEPARTMENT FEE SCHEDULE	
APPLICATION FEE [a] Required at time of application	**FEE**
Permit Applications	$100.00
Variance Request Applications	$100.00
CONSTRUCTION PERMIT FEES [b] Required after review and before the release of	**FEE** In addition to application fee
Fire Alarm	$100.00 (per panel) Plus, see Table 106.1, Valuation Fee Scale
Fire Sprinkler	$100.00 (per riser) Plus, see Table 106.1, Valuation Fee Scale
Firefighter Air Replenishment System [c]	$100.00 Plus, see Table 106.1, Valuation Fee Scale
Aboveground Storage Tank	$100.00 per tank
Access Controlled Egress Doors	$100.00 per floor
Access Controlled Gates	$100.00 per gate
Commercial Hood Suppression System	$100.00 per system
Compressed Gases (incl. CO_2 beverage dis-	$100.00
Energy Systems (Battery, Generator, Solar, etc.) IFC Chapter 12 Systems	$100.00 per system type
Fire Pump	$100.00
Fire Service Underground Water Line	$100.00
Foam	$100.00
Gas Detection Systems	$100.00
Gaseous Agent Suppression System	$100.00
Hazardous Material [c]	$100.00
High-Piled Storage [c]	$100.00
Industrial Ovens [c]	$100.00
LPG [c]	$100.00
Mass Notification System	$100.00
Spray or Dipping (Paint) Booth [c]	$100.00
Remote Fire Department Connection	$100.00
Smoke Exhaust Systems	$100.00
Standpipe Systems (Stand-alone)	$100.00 per riser
Tents, Membrane Structure [c]	$50.00 per tent (after the first)
Underground Storage Tank (UGST) Installa-	$100.00 per tank
UGST Removal/Abandonment	$100.00
Fire Lane Modification / Repair	Application fee only
Pipeline Repair	Application fee only

Footnotes:

a. For applications submitted for the review of Construction Permits as required by the IFC.
b. Fee is in addition to application fee and is assessed per permit issued.
c. Requires additional operational permits.

OPERATIONAL PERMIT FEES (IFC Sec. 105.6)	RENEWAL	FEE In addition to application
Aerosol products (105.6.1)	Annually	Application fee only
Amusement buildings (105.6.2)	Per Use	$100.00
Aviation facilities (105.6.3)	Annually	Application fee only
Carnival and fairs (105.6.4)	Per Use	$100.00
Compressed gases (105.6.8) (incl. CO_2 beverage dispensing)	Annually	Application fee only
Cooking Tents	Per Use	Application fee only
Cryogenic Fluids (105.6.10)	Annually	Application fee only
Dry cleaning (105.6.12)	Annually	Application fee only
Explosives (105.6.14)	Annually	Application fee only
Firefighter Air Replenishment System	Annually	Application fee only
Flammable and combustible liquids	Annually	Application fee only
Fumigation and Insecticide Fogging		
Hazardous Materials (105.6.20)	Annually	Application fee only
High-piled (combustible) storage	Annually	Application fee only
Hot work operation (105.6.23)	Per Use	Application fee only
Industrial ovens (105.6.24)	Annually	Application fee only
Liquid- or gas- fueled vehicles or equipment in assembly buildings	Annually	Application fee only
LP-Gas (105.6.27) [LPG, above and under-ground] [LPG, retail ex-	Annually	Application fee only
Miscellaneous Combustible Storage (105.6.29)	Annually	Application fee only
Mobile food preparation vehicles (105.6.30) [Food Trucks]	Annually	Application fee only
Model Rocketry (105.6.51)	Per Use	No fee
Motor Fuel Dispensing Facilities (105.6.31)	Annually	Application fee only
Open burning [**Burn**] (105.6.32)	Per Use	Application fee only
Open flames and candles (105.6.34)	Per Use	Application fee only
Parade floats (105.6.52)	Per Use	Application fee only
Places of Assembly (105.6.37)	Annually	Application fee only
Pyrotechnic special effects material (105.6.39)	Per Use	$900.00 Actual overtime cost of employee(s) – min-imum 2 hours
Refrigeration equipment (105.6.42)	Annually	Application fee only
Repair garages (105.6.43)	Annually	Application fee only
Rooftop heliports (105.6.44)	Annually	Application fee only

Spraying or dipping [Paint Spray/Finished Booths] (105.6.45)	Annually	Application fee only
Storage of scrap tires and tire by-products	Annually	Application fee only
Temporary membrane structures and tents (use greater than 30 days & less than 180 days)	per use	Application fee only

INSPECTIONS AND TESTING FEES	FEE
After-hours (when staffing allows)	Actual overtime cost of employee(s) Minimum of 2
Annual Inspection (all occupancies)	$25.00
Certificate of Occupancy	$50.00
Pipeline Repair	$50.00
Re-inspection	$100.00
State Licensed Facilities	$100.00
Fire Hydrant Flow Test	Application fee only
OTHER FEES (no application fee)	**FEE**
Expedited Plan Review Fee	$500.00
Working without a permit	Two times the permit fee
Release of system prior to approval	Two times the permit fee
Permit Re-Print	$100.00

TABLE 107.1
Valuation Fee Scale

VALUATION	FEE
$1 to $500	$20.00
$501 to $2,000	$20.00 for the first $500; plus, $2.50 for each addition $100.00 or fraction thereof up to and including $2,000.00
$2,001 to $25,000	$50.00 for the first $2,000; plus, $10.00 for each additional $1,000.00 or fraction thereof up to and including $25,000.00
$25,001 to $50,000	$280.00 for the first $25,000; plus, $8.00 for each addition $1,000.00 or fraction thereof up to and including $50,000.00
$50,001 to $100,000	$680.00 for the first $50,000.00; plus, $6.00 for each additional $1,000.00 or fraction thereof up to and including $100,000.00
$100,001 to $500,000	$980 for the first $100,000; plus, $4.00 for each additional $1,000.00 or fraction thereof up to and including $500,000.00
$500,001 to 1,000,000	$2,580.00 for the first $500,000; plus, $3.00 for each additional $1,000.00 or fraction thereof up to and including
$1,000,001 and over	$4,080.00 for the first $1,000,000; plus, $2.00 for each additional $1,000.00 or fraction thereof

DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF MCKINNEY, TEXAS, ON THIS ____ DAY OF _____, 20___.

_____
GEORGE C. FULLER
Mayor

CORRECTLY ENROLLED:

_____
EMPRESS DRANE
City Secretary
LISA SEWELL
Deputy City Secretary

DATE: _____

APPROVED AS TO FORM:

_____
MARK S. HOUSER
City Attorney

ATTACHMENT A

North Central Texas Council of Governments

Recommended Amendments to the 2018 International Fire Code

North Central Texas Council of Governments Region

The following sections, paragraphs, and sentences of the *2018 International Fire Code* (IFC) are hereby amended as follows: Standard type is text from the IFC. Underlined type is text inserted. ~~Lined through type is deleted text from IFC.~~ A double asterisk (**) at the beginning of a section identifies an amendment carried over from the 2015 edition of the code and a triple asterisk (***) identifies a new or revised amendment with the 2018 code.

Note: Historically, the North Central Texas Council of Governments (NCTCOG) has limited Chapter 1 amendments in order to allow each city to insert their local policies and procedures. We now have suggested certain items to be brought to the attention of cities considering adoption of the code that may be of concern to several jurisdictions. **It is still intended to be discretionary to each city to determine which Chapter 1 amendments to include.** Note that Appendices must be specifically adopted by Ordinance. As per Page vii of the 2018 IFC, note that several sections of the code require jurisdictional specificity as to dollar amounts, geographic limits, etc. and are not addressed in these amendments.

Explanation of Options A and B:
Please note that as there is a wide range in firefighting philosophies/capabilities of cities across the region, OPTIONS "A" and "B" are provided in the Fire and Building Code amendments. Jurisdictions should choose one of these based on their fire-fighting philosophies/capabilities when adopting code amendments.

***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.

(Reason: To clarify that there are other provisions in the fire code applicable to existing buildings that are not located in Chapter 11, including but not limited to Section 505 Premises Identification.)

***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.

(Reason: For clarity to allow for better understanding in areas not requiring such permits, such as unincorporated areas of counties. This amendment may be struck by a city.)

***Section 105.7; add Section 105.7.26 to read as follows:**

105.7.26 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.

(Reason: Adds construction permit requirements for electronic access control systems affecting access and/or egress to ensure proper design and installation of such systems. These changes reflect local practices of municipalities in this region.)

***Section 202; amend and add definitions 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 or staff has accepted responsibility for care recipients already incapable. This group may include but not be limited to the following:

- Dialysis centers

- Procedures involving sedation

- Sedation dentistry

- Surgery centers

- Colonic centers

- Psychiatric centers

(Reason: to clarify the range of uses included in the definition)

**** [B] ATRIUM.** An opening connecting ~~two~~ three or more stories… *{remaining text unchanged}*

(Reason: Accepted practice in the region based on legacy codes. IBC Section 1009 permits unenclosed two story stairways under certain circumstances.)

**** [B] 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.

(*Reason: Added from International Building Code (IBC) definitions for consistency in interpretation of the subject requirements pertaining to such occupancies.)*

****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.

(Reason: Clearly defines options to the fire department for providing a fire watch.)

****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 1.3G fireworks or 1.4G fireworks. *… {Remainder of text unchanged}…*

(Reason: Increased safety from fireworks related injuries.)

****Option A**

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

Any building classified as a group S Occupancy or Speculative Building exceeding 12,000 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.

****Option B**

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

Any building classified as a group S Occupancy or Speculative Building exceeding 6,000 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.

(Reason: To provide protection for worst-case scenario in flexible or unknown situations.)

****Option A**

HIGH-RISE BUILDING. {No Change Required}

****Option B**

HIGH-RISE BUILDING. A building with an occupied floor located more than ~~75~~ 55 feet (~~22 860~~ 16 764 mm) above the lowest level of fire department vehicle access.

(Reason: Allows for additional construction safety features to be provided, based on firefighting response capabilities.)

****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.

(Reason: To further clarify types of service work allowed in a repair garage, as well as to correspond with definition in the IBC.)

****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.

(Reason: To provide a definition that does not exist in the code.)

****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.

(Reason: To provide a definition that does not exist in the code for fire watch accommodations as required 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

(Reason: This is referenced in several places, but the wording of "upgraded or replaced" is somewhat ambiguous and open to interpretation. Defining it here allows for consistent application across the region.)

*****Section 307.1.1; change to read as follows:***
*****Section 307.1.1; change to read as follows:***

307.1.1 Prohibited Open Burning. Open burning ~~shall be prohibited~~ that is offensive or objectionable because of smoke emissions or when atmospheric conditions or local circumstances make such fires hazardous shall be prohibited.

Exception: {No change.}

(Reason: To further protect adjacent property owners/occupants from open burning and/or smoke emissions from open burning.)

*****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 ~~a bonfire~~. 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*.

(Reason: Amendments to 307.2, 307.4, 307.4.3, and 307.5 better explain current requirements and recognize that jurisdictions have local established policies that best fit their environments.)

*****Section 307.3; change to read as follows:***

307.3 Extinguishment Authority. ~~When open burning creates or adds to a hazardous situation, or a required permit for open burning has not been obtained, the fire code official is authorized to order the extinguishment of the open burning operation.~~ The fire code official is authorized to order the extinguishment by the permit holder, another person responsible or the fire department of open burning that creates or adds to a hazardous or objectionable situation.

(Reason: Provides direction as to responsible parties relative to extinguishment of the subject open burning.)

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

307.4 Location. The location for open burning shall not be less than ~~50~~ 300 feet (~~15 240~~ 91 440 mm) from any structure, and provisions shall be made to prevent the fire from spreading to within ~~50~~ 300 feet (~~15 240~~ 91 440 mm) of any structure.

Exceptions: {No change.}

(*Reason: To increase the separation distance thereby increasing the safety to adjacent properties, as per applicable TCEQ rules and regulations regarding outdoor burning.)*

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

Exceptions:

2. Where buildings, balconies and decks are protected by an approved automatic sprinkler system.

(Reason: To reflect similar allowances for open-flame cooking in these same locations.)

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

307.4.4 Permanent Outdoor Firepit. Permanently installed outdoor firepits for recreational fire purposes shall not be installed within 10 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.

(Reason: To provide a greater level of safety for this potentially hazardous fire exposure condition. Decrease in separation distance allowed for outdoor firepits due to permanent nature of construction having substantial securement.)

***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… *{Remainder of section unchanged}*

(Reason: Adds attendance for trench burns based on previous amendment provision for such.)

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

308.1.4 Open-flame Cooking Devices. ~~Charcoal burners and other o~~Open-flame cooking devices, charcoal grills and other similar devices used for cooking shall not be ~~operated~~ located or used on combustible balconies, decks, or within 10 feet (3048 mm) of combustible construction.

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 pounds (5 containers).

2. Where buildings, balconies and decks are protected by an approved *automatic sprinkler system*, 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 40 lbs. (2 containers).

3. {No change.}

(Reason: Decrease fire risk in multi-family dwellings and minimizes ignition sources and clarify allowable limits for 1 & 2 family dwellings, and allow an expansion for sprinklered multi-family uses. This amendment adds clarification and defines the container size allowed for residences.)

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

Exceptions:

3. Torches or flame-producing devices in accordance with Section ~~308.4~~ 308.1.3.

(Reason: Section identified in published code is inappropriate.)

***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 an ~~untethered~~ unmanned free-floating device containing an open flame or other heat source, such as but not limited to a *sky lantern*.

(Reason: Eliminates the potential fire hazard presented by utilization of such devices and the potential accidental release of such devices.)

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

311.5 Placards. ~~Any~~ 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, ~~shall be marked~~ as required by Section 311.5.1 through 311.5.5.

(Reason: There may be situations where placarding is not desired or necessary; also clarifies intent that it is not the fire code official's responsibility to provide the placard.)

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.

(Reason: The diagrams are intended to assist with egress in such occupancies – specifically, the primary teacher is not always present to assist children with egress. Also, such will help reinforce evacuation drill requirements.)

Section 404.2.2; add Number 4.10 to read as follows:

4.10 Fire extinguishing system controls.

(Reason: The committee believed this information could be of great help to such plans to facilitate locating sprinkler valves to minimize water damage, for instance.)

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.

(Reason: This change clarifies who may require a fire or evacuation drill).

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. , ~~such protection shall be installed and made serviceable prior to and during the time of construction except when approved alternative methods of protection are provided. Temporary street signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles in accordance with Section 505.2.~~

(Reason: Reflects current practice in the region relative to ensuring fire department and EMS access during construction, which can be a time of increased frequency for emergency incidents.)

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.

(Reason: Recognizes that the hose lay provision can only be measured along a pathway that is wide enough for fire fighter access.)

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 ~~20~~ 24 feet (~~6096 mm~~ 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 ~~13 feet 6 inches (4115 mm)~~ 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.

(Reason: Amendments to 503.2.1 and 503.2.2 recognize that the equipment now used in firefighting is increasing in size. The code already recognizes that larger dimensions may be required under Section 503.2.2. The amendments are to standardize the dimensions for this area. With the increase in fire apparatus size, this will allow for the passage of two fire apparatus during a fire or EMS emergency.)

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.

(Reason: Amendments to 503.2.1 and 503.2.2 recognize that the equipment now used in firefighting is increasing in size. The code already recognizes that larger dimensions may be required under Section 503.2.2. The amendments are to standardize the dimensions for this area. With the increase in fire apparatus size, this will allow for the passage of two fire apparatus during a fire or EMS emergency.)

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.

(Reason: To address the current size of fire trucks in use – figure derived from DOT requirements for waiver of vehicle exceeding such weight.)

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

503.3 Marking. ~~Where required by the fire code official, approved signs or other approved notices or markings that include the words NO PARKING – FIRE LANE~~ 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. ~~The means by which fire lanes are designated~~ 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 feet 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.

(Reason: Establishes a standard method of marking and reflects local long-standing practices.)

***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.

(Reason: As originally worded, the section implied that vehicles could be parked in the marked fire lane and not be in violation if the minimum width is still maintained. Current accepted enforcement practice is to require the entire marked fire lane to be maintained clear and unobstructed.)

***Section 505.1; change to read as follows:**
***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 ~~4 inches (102 mm)~~ 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.

(Reason: To increase the minimum addressing requirements for commercial properties and establish a minimum for single-family residential properties Such improves legibility of these signs which are critical to emergency response in a more timely manner.)

***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 ~~or approved documentation of the test shall be provided to the *fire code official* prior to final approval of the water supply system~~. 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.

(Reason: Clarifies intent of the test to ensure contractor accounts for water supply fluctuations.)

***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.

(Reason: Additional guidance based on legacy language to ensure these critical devices are available in an emergency incident.)

***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.

(Reason: Provides direction as to appropriate sign criteria to develop local and regional consistency in this regard.)

****Section 603.3.2 and 603.3.2.1; change to read as follows:**

603.3.1 Fuel oil storage in outside, above-ground tanks. Where connected to a fuel-oil piping system, the maximum amount of fuel oil storage allowed outside above ground without additional protection shall be 660 gallons (2498 L). The storage of fuel oil above ground in quantities exceeding 660 gallons (2498 L) shall comply with NFPA 31 and Chapter 57.

603.3.2 Fuel oil storage inside buildings. Fuel oil storage inside buildings shall comply with Sections 603.3.2.1 through 603.3.2.5 ~~or~~ and Chapter 57.

603.3.2.1 Quantity limits. One or more fuel oil storage tanks containing Class II or III *combustible liquid* shall be permitted in a building. The aggregate capacity of all tanks shall not exceed the following:

1. 660 gallons (2498 L) in unsprinklered buildings, where stored in a tank complying with UL 80, UL 142 or UL 2085 for Class III liquids, and also listed as a double-wall/secondary containment tank for Class II liquids.
2. 1,320 gallons (4996 L) in buildings equipped with an *automatic sprinkler* system in accordance with Section 903.3.1.1, where stored in a tank complying with UL 142 or UL 2085 as a double-wall/secondary containment tank.
3. 3,000 gallons (11 356 L) where stored in protected above-ground tanks complying with UL 2085 and Section 5704.2.9.7 and the room is protected by an *automatic sprinkler system* in accordance with Section 903.3.1.1.

(Reason: Issues addressed by Chapter 57, such as venting to outside of buildings, remote fill to outside of building, overfill protection, physical protection, etc., are not included in Section 603.3, so compliance with Chapter 57 is also required. The Board determined that fuel storage in such tanks inside of buildings is commonly in double-wall tanks, and that this inherent leak protection was prudent in order to allow these quantities of combustible liquids to be stored inside a building for such purpose.)

***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.

(Reason: This change allows an increase in wall coverage due to the presence of sprinklers. Also provides additional guidance relative to fire resistance requirements in these areas.)

***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.

(Reason: This change allows an increase in wall coverage due to the presence of sprinklers. Also provides additional guidance relative to fire resistance requirements in these areas.)

******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 back-flushed or inspected by approved camera when foreign material is present or when caps are missing, 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*.

(Reason: Increases the reliability of the fire protection system and re-emphasizes the requirements of NFPA 25 relative to standpipe systems, as well as ensuring that FDC connections are similarly tested/maintained to ensure operation in an emergency incident.)

*****Section 901.6.4; add Section 901.6.4 to read as follows:***

901.6.4 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.

(Reason: Places the responsibility on the business or property owner to maintain their fire alarm systems in approved condition. Allows the enforcement of "prohibition of false alarms". Replaces text lost from the legacy codes that helps to ensure the maintenance of life safety systems.)

*****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. … *{Remaining text unchanged}*

(Reason: Gives fire code official more discretion with regards to enforcement of facilities experiencing nuisance alarm or fire protection system activations necessitating correction/repair/replacement. The intent of the amendment is to allow local jurisdictions to enforce fire watches, etc., where needed to ensure safety of occupants where fire protection systems are experiencing multiple nuisance activations.)

***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 ~~instead of~~ in addition to automatic sprinkler protection where recognized by the applicable standard ~~and~~, or as *approved* by the *fire code official*.

(Reason: Such alternative systems do not provide the reliability of automatic sprinkler protection. Most gaseous type systems are highly susceptible to open doors, ceiling or floor tile removal, etc. However, an applicant could pursue an Alternate Method request to help mitigate the reliability issues with these alternative systems with the fire code official if so desired, or there may be circumstances in which the fire code official is acceptable to allowing an alternate system in lieu of sprinklers, such as kitchen hoods or paint booths.)

***Section 903.2; add paragraph to read as follows and delete the exception:**

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."

(Reason: Firefighter and public safety. This amendment eliminates the shunt trip requirement of the International Building Code Section 3005.5 for the purpose of elevator passenger and firefighter safety. This amendment is contingent on the Building Code amendment eliminating the Exceptions to Section 3005.4, such that passive fire barriers for these areas are maintained. The exception deletion is due to the fact that such telecom areas pose an undue fire risk to the structural integrity of the building.)

***Section 903.2.9; add Section 903.2.9.3 to read as follows:**

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

(Reason: Fire departments are unable to inspect these commercial occupancies and are unaware of the contents being stored. Previous allowance to separate units by fire barriers is difficult to enforce maintenance after opening.)

Option A

***Section 903.2.11; change 903.2.11.3 and add 903.2.11.7 and 903.2.11.8, as follows:**

903.2.11.3 Buildings 55 Feet or more in Height. An automatic sprinkler system shall be installed throughout buildings that have one or more stories ~~with an occupant load of 30 or more~~, other than penthouses in compliance with Section 1510 of the *International Building Code*, located 55 feet (16 764 mm) or more above the lowest level of fire department vehicle access, measured to the finished floor.

Exceptions:

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

~~2. Occupancies in Group F-2.~~

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.

[Remainder of page intentionally left blank.]

**Option B

Section 903.2.11; change 903.2.11.3 and add 903.2.11.7, 903.2.11.8, and 903.2.11.9 as follows:

903.2.11.3 Buildings ~~55~~ 35 feet or more in height. An automatic sprinkler system shall be installed throughout buildings that have one or more stories ~~with an occupant load of 30 or more~~, other than penthouses in compliance with Section 1510 of the *International Building Code*, located ~~55~~ 35 feet (~~16~~ ~~764~~ 10 668 mm) or more above the lowest level of fire department vehicle access, measured to the finished floor.

Exception~~s~~:

~~1.~~ Open parking structures in compliance with Section 406.5 of the *International Building Code, having no other occupancies above the subject garage*.

~~2. Occupancies in Group F-2.~~

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 6,000 sq. ft. An automatic sprinkler system shall be installed throughout all buildings with a building area 6,000 sq. ft. or greater and in all existing buildings that are enlarged to be 6,000 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*.

(Reason: Provides jurisdictions options as to their desired level of sprinkler protection based on multiple factors including firefighting philosophies/capabilities.)

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 *... {text unchanged}…* 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. ~~In rooms or areas that are of noncombustible construction with wholly noncombustible contents.~~
5. ~~Fire service access~~ Elevator machine rooms, ~~and~~ machinery spaces, and hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances.
6. {Delete.}

(Reason: Gives more direction to code official. Exception 4 deleted to provide protection where fire risks are poorly addressed. Amendment 903.2 addresses Exception 5 above relative to the elimination of sprinkler protection in these areas to avoid the shunt trip requirement.)

****Section 903.3.1.2.3; delete section and replace as follows:***

[F] Section 903.3.1.2.3 Attached Garages and Attics. Sprinkler protection is required in attached garages, and in the following attic spaces:

1. Attics that are used or intended for living purposes or storage shall be protected by an automatic sprinkler system.
2. Where fuel-fired equipment is installed in an unsprinklered attic, not fewer than one quick-response intermediate temperature sprinkler shall be installed above the equipment.
3. Attic spaces of buildings that are two or more stories in height above grade plane or above the lowest level of fire department vehicle access.

4. Group R-4, Condition 2 occupancy attics not required by Item 1 or 3 to have sprinklers shall comply with one of the following:
    4.1. Provide automatic sprinkler system protection.
    4.2. Provide a heat detection system throughout the attic that is arranged to activate the building fire alarm system.
    4.3. Construct the attic using noncombustible materials.
    4.4. Construct the attic using fire-retardant-treated wood complying with Section 2303.2 of the International Building Code.
    4.5. Fill the attic with noncombustible insulation.

(Reason: Attic protection is required due to issues with fire exposure via soffit vents, as well as firefighter safety. Several jurisdictions indicated experience with un-protected attic fires resulting in displacement of all building occupants. NFPA 13 provides for applicable attic sprinkler protection requirements, as well as exemptions to such, based on noncombustible construction, etc. Attached garages already require sprinklers via NFPA 13R – this amendment just re-emphasizes the requirement.)

*****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.

(Reason: To allow the use of the Plumbing section of the International Residential Code (IRC) and recognize current state stipulations in this regard.)

*****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.

(Reason: In the last few years, severe winters brought to light several issues with current practices for sprinklering attics, not the least of which was wet-pipe sprinklers in ventilated attics provided with space heaters, etc. for freeze protection of such piping. This practice is not acceptable for the protection of water-filled piping in a ventilated attic space as it does not provide a reliable means of maintaining the minimum 40 degrees required by NFPA, wastes energy, and presents a potential ignition source to the attic space. Listed antifreeze is specifically included because NFPA currently allows such even though there is no currently listed antifreeze at the time of development of these amendments. The intent of this amendment is to help reduce the large number of freeze breaks that have occurred in the past with water-filled wet-pipe sprinkler systems in the future, most specifically in attic spaces.)

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

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.

(Reason: To define uniform safety factor for the region.)

*****Section 903.4; 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.

(Reason: To avoid significant water losses. Consistent with amendment to IFC 905.9.)

***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.

(Reason: Fire department connections are not always located at the riser; this allows the fire department faster access.)

***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.

(Reason: To define manual dry standpipe supervision requirements. Helps ensure the integrity of the standpipe system via supervision, such that open hose valves will result in a supervisory low air 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, semi-automatic dry, and manual dry standpipes are allowed as provided for in NFPA 14 where approved by the fire code official.
2. R-2 occupancies of four stories or less in height having no interior corridors.

(Reason: Allows for the rapid deployment of hose lines to the body of the fire. Manual dry option added this edition.)

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

1. In every required ~~interior~~ 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.
2. {No change.}
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 ~~interior~~ exit stairway hose connection by a {remainder of text unchanged}

4. {No change.}
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 ~~a~~ hose connection ~~shall be~~ located to serve the roof or at the highest landing of an ~~interior~~ exit stairway with stair access to the roof provided in accordance with Section 1011.12.
6. {No change.}
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.

(Reason: Item 1, 3, and 5 amendments to remove 'interior' will help to clarify that such connections are required for all 'exit' stairways, to ensure firefighter capabilities are not diminished in these tall buildings, simply because the stair is on the exterior of the building. Item 5 reduces the amount of pressure required to facilitate testing, and provides backup protection for fire fighter safety. Item 7 allows for the rapid deployment of hose lines to the body of the fire.)

***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.

(Reason: To avoid significant water losses. Consistent with amendment to IFC 903.4.)

[Remainder of page intentionally left blank.]

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.

(Reason: Provides for the ability of descriptive identification of alarms, and reduces need for panel replacement in the future. Updated wording to match the language of the new requirement at 907.5.2.3. Change of terminology allows for reference back to definitions of NFPA 72.)

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 ~~where the~~ having an occupant load ~~due to the assembly occupancy is~~ of 300 or more persons, or where the ~~Group A~~ occupant load is 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.~~4~~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: {No change.}

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.

(Reason: Increases the requirement to be consistent with Group B requirement. Also addresses issue found in Group A occupancies of reduced lighting levels and other A/V equipment that distracts from fire alarm notification devices or reduces ability of fire alarm system to notify occupants of the emergency condition.)

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. {No change.}
   1.1. 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.) {No change to remainder of exceptions.}

(Reason: To distinguish educational from day care occupancy minimum protection requirements. Further, to define threshold at which portable buildings are considered a separate building for the purposes of alarm systems. Exceptions provide consistency with State law concerning such occupancies.)

Section 907.2.12, 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.

(Reason: To indicate that enclosed areas within open air seating type occupancies are not exempted from automatic fire alarm system requirements.)

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.

(Reason: Helps to reduce false alarms.)

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.

(Reason: To provide uniformity in system specifications and guidance to design engineers. Improves reliability of fire alarm devices and systems.)

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

(Reason: To assist responding personnel in locating the emergency event for all fire alarm systems. This is moved from 907.6.5.3 in the 2012 IFC and reworded to match new code language and sections.)

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

See 907.6.3 for the required information transmitted to the supervising station.

(Reason: To assist responding personnel in locating the emergency event for all fire alarm systems. This is moved from 907.6.5.3 in the 2012 IFC and reworded to match new code language and sections.)

***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.

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.

909.21.1.2 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.

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.

(Reason: To assist with enforcement of such as a smoke control system, as per Section 909.6.3, especially since a permit is now specifically required for such systems in the Fire Code. Also ensures that a fire-fighter's override panel is provided as per 909.16 for such systems. The above amendment copies the

applicable requirements for such systems from Section 909.20 of the Building Code into the Fire Code. Although the published code did copy the elevator pressurization requirements into the Fire Code, it did not copy over the stair pressurization requirements.)

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

2. Only manual smoke and heat removal shall ~~not~~ 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 ~~not~~ 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.

(Reason: Allows the fire department to control the smoke and heat during and after a fire event, while still prohibiting such systems from being automatically activated, which is a potential detriment to the particular sprinkler systems indicated.)

***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^2) 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.

(Reason: Maintains a fire protection device utilized in such occupancies where it is sometimes necessary to allow chemicals to burn out, rather than extinguish.)

***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.

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.

(Reason: Amendment continues to keep applicable wording from prior to the 2012 edition of the IFC. Specifically, automatic activation criteria is no longer specifically required in the published code. Specifying a temperature range at which smoke and heat vents should activate in sprinklered buildings helps to ensure that the sprinkler system has an opportunity to activate and control the fire prior to vent operation.)

***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 ~~manual or~~ automatic. The minimum gross area of makeup air inlets shall be 8 square feet per 1,000 cubic feet per minute (0.74 m2 per 0.4719 m3/s) of smoke exhaust.

(Reason: Makeup air has been required to be automatic for several years now in this region when mechanical smoke exhaust systems are proposed. This allows such systems to be activated from the smoke control panel by first responders without having to physically go around the exterior of the building opening doors manually. Such requires a significant number of first responders on scene to conduct this operation

and significantly delays activation and/or capability of the smoke exhaust system.)

***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 100 feet of the fire department connection as the fire hose lays along an unobstructed path.

(Reason: To accommodate limited hose lengths, improve response times where the FDC is needed to achieve fire control, and improve ease of locating a fire hydrant in those situations also. Also, consistent with NFPA 14 criteria.)

***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.

(Reason: This requirement allows fire fighters safer access to the fire pump room. The requirement allows access without being required to enter the building and locate the fire pump room interior access door during a fire event. The exception recognizes that this will not always be a feasible design scenario for some buildings, and as such, provides an acceptable alternative to protect the pathway to the fire pump room.)

***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 ~~420~~ 120 feet (37 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: {No change to exception.}

(Reason: The 2009 edition of the IFC added this requirement based on a need for redundancy of the water supply similar to the redundancy of the power supply to the fire pumps required for such tall buildings, partially due to the fact that these buildings are rarely fully evacuated in a fire event. More commonly, the alarm activates on the floor of the event, the floor above and the floor below. Back-up power to the fire pump becomes critical for this reason. Certainly, the power is pointless if the water supply is impaired for any reason, so a similar requirement is provided here for redundant water supplies. The 2015 edition changes the requirement to only apply to very tall buildings over 420 ft. This amendment modifies/lowers the requirement to 120 ft., based on this same height requirement for fire service access elevators. Again, the language from the 2009 and 2012 editions of the code applied to any high-rise building. This compromise at 120 ft. is based on the above technical justification of defend-in-place scenarios in fire incidents in such tall structures.)

****Section 1006.2.2.7; Add Section 1006.2.2.7 as follows:**

1006.2.2.7 Electrical Rooms. For electrical rooms, special exiting requirements may apply. Reference the electrical code as adopted.

(Reason: Cross reference necessary for coordination with the NEC which has exiting requirements as well.)

****Section 1009.8; add the following Exception 7:**

Exceptions:
7. Buildings regulated under State Law and built in accordance with State registered plans, including variances or waivers granted by the State, shall be deemed to be in compliance with the requirements of Section 1009 and chapter 11.

(Reason: To accommodate buildings regulated under Texas State Law and to be consistent with amendments in Chapter 11.)

****Section 1010.1.9.5 Bolt Locks; amend exceptions 3 and 4 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. (Remainder unchanged)
4. Where a pair of doors serves a Group A, B, F, M or S occupancy (remainder unchanged)

(Reason: Application to M occupancies reflects regional practice; No. 4 expanded to Group A due to it being a similar scenario to other uses; No. 4 was regional practice.)

****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 must activate self-annunciating alarms audible in all areas within the corridor. Smoke detectors must be connected to an approved automatic fire alarm system where such system is provided.

(Reason: Regionally accepted alternate method.)

****Section 1029.1.1.1 Spaces under grandstands and bleachers; delete this section.**
(Reason: Unenforceable.)

*****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 ~~where the building area served by the means of egress is occupied~~. An *exit* or *exit passageway* shall not be used for any purpose that interferes with a means of egress.

(Reason: Maintain legacy levels of protection and long-standing regional practice, and provide firefighter safety.)

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

Provide emergency signage as required by Section 606.3.

(Reason: Coordinates requirements of previous amendment.)

*****Section 1103.5.1: add sentence to read as follows:**

Fire sprinkler system installation shall be completed within 24 months from date of notification by the fire code official.

(Reason: Regional consistency of this retroactive requirement to allow business owners adequate time to budget to accommodate the cost of the fire sprinkler system.)

*****Section 1103.5; add Section 1103.5.5 to read as follows:***

1103.5.5 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.

(Reason: Consistent with amendment to IFC 2404, and long-standing regional requirement to protect this hazardous operation.)

*****Section 1103.7; add Section 1103.7.7 and 1103.7.7.1 to read as follows:**

1103.7.7 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.

1103.7.7.1 Communication requirements. Refer to Section 907.6.6 for applicable requirements.

(Reason: To assist responding personnel in locating the emergency event and provide clarity as to percentages of work that results in a requirement to upgrade the entire fire alarm system.)

***Section 1203; change and add to read as follows:**

1203.1.1 {No change.}
1203.1.2 {No change.}
1203.1.3 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.
1203.1.4 through 1203.1.9 {No changes to these sections.}
1203.1.10 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.
1203.2 Where Required. Emergency and standby power systems shall be provided where required by Sections 1203.2.1 through 1203.2.~~18~~26 or elsewhere identified in this code or any other referenced code.
1203.2.1 through 1203.2.3 {No change.}
1203.2.4 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.

Covered and Open Malls, Section 907.2.19 and 914.2.3
Group A Occupancies, Sections 907.2.1 and 907.5.2.2.4.
Special Amusement Buildings, Section 907.2.11
High-rise Buildings, Section 907.2.12
Atriums, Section 907.2.13
Deep Underground Buildings, Section 907.2.18

1203.2.5 through 1203.2.13 {No change.}
1203.2.14 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)
1203.2.15 Membrane Structures. Emergency power shall be provided for *exit* signs in temporary tents and membrane structures in accordance with Section 3103.12.6. (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.
1203.2.16 {No change.}
1203.2.17 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 410.2.5
Special Amusement Buildings (as applicable to Group A's), *International Building Code*, Section 411.1
Smoke Protected Seating, Section 1029.6.2.

1203.2.18 {No change.}
1203.2.19 Covered and Open Mall Buildings. Emergency power shall be provided in accordance with Section 907.2.19 and 914.2.3.
1203.2.20 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.

1203.2.21 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.
1203.2.22 Elevator Pressurization. Standby power shall be provided for elevator pressurization system as required by the *International Building Code*, Section 909.21.5.
1203.2.23 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.
1203.2.24 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.
1203.2.25 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.
1203.2.26 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.)
1203.3 through 1203.6 {No change.}

1203.7 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.

(Reason: These amendments were moved from Chapter 6, due to relocation of the published sections to this new Chapter 12. These provisions provide a list to complete and match that throughout the codes. The only additional requirements are the reference to COPS in NFPA 70, and the specified Energy time duration. Other changes are a reference to a code provision that already exists.)

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

2304.1 Supervision of Dispensing. The dispensing of fuel at motor fuel-dispensing facilities shall be ~~conducted by a qualified attendant or shall be under the supervision of a qualified attendant at all times or shall be~~ in accordance with ~~Section 2204.3.~~ 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.

(Reason: Allows a facility to apply the attended and unattended requirements of the code when both are potentially applicable.)

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

(Reason: This section eliminates such booths from all compliance with Chapter 15 including, but not limited to: size, ventilation, fire protection, construction, etc. If the product utilized is changed to a more flammable substance, the lack of compliance with Chapter 15 could result in significant fire or deflagration and subsequent life safety hazard.)

******Section 3103.3.1; delete this section.***

(Reason: This new section of the Fire Code requires a fire sprinkler system to be installed in temporary tents and membrane structures, which is not a reasonable or enforceable requirement for a temporary use. A fire watch or fire alarm system is a more advisable approach for such occupancies that are only temporary.)

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

h. ~~Not required~~ 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.

(Reason: Allows the fire department to control the smoke and heat during and after a fire event, while ensuring proper operation of the sprinkler protection provided. Also, gives an alternative to smoke and heat vents.)

******Table 3206.2, footnote j; add footnote j to row titled 'High Hazard' and 'Greater than 300,000' to read as follows:***

j. High hazard high-piled storage areas shall not exceed 500,000 square feet. A 2-hour fire wall constructed in accordance with Section 706 of the *International Building Code* shall be used to divide high-piled storage exceeding 500,000 square feet in area.

(Reason: This is a long-standing legacy requirement and provides passive protection for extremely large buildings where it would be otherwise impossible to control the spread of fire without the fire wall in place in an uncontrolled fire event, which is much more likely in high hazard commodities, such as tires, flammable liquids, expanded plastics, etc.)

***Section 3310.1; add sentence to end of paragraph to read as follows:**

When fire apparatus access roads are required to be installed for any structure or development, they shall be approved prior to the time at which construction has progressed beyond completion of the foundation of any structure.

(Reason: Reference requirement of Section 501.4.)

***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. ~~Manufacture, assembly and testing of fireworks as allowed in Section 5605.~~

~~3.~~2. The use of fireworks for approved fireworks displays as allowed in Section 5608.

~~4. The possession, storage, sale~~ *… {Delete remainder of text.}*

(Reason: Restricts fireworks to approved displays only, which is consistent with regional practice. Such is intended to help protect property owners and individuals from unintentional fireworks fires within the jurisdiction, as well as to help protect individuals from fireworks injuries. It is noted that there has been a change in the State Law to allow possession of unopened fireworks in certain areas of the vehicle, and it is highly recommended that AHJ's familiarize themselves with the applicable State Laws in this regard.)

***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.

(Reason: Increased protection in response to underground leak problems and remediation difficulty in underground applications. Coordinates with TCEQ requirements.)

***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 ~~and 5704.2.11.4.2~~ through 5704.2.11.4.3. An *approved* method of secondary containment shall be provided for underground tank and piping systems.

(Reason: Increased protection in response to underground leak problems and remediation difficulty in underground applications.)

***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.

(Reason: Reference to IFC Section 5704.2.11.4.3 amendment.)

***Section 5704.2.11.4.3; 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.

(Reason: Provides an economical means of checking potential leaks at each tank site.)

***Section 5707.4; add paragraph to read as follows:**

Mobile fueling sites shall be restricted to commercial, industrial, governmental, or manufacturing, where the parking area having such operations is primarily intended for employee vehicles. Mobile fueling shall be conducted for fleet fueling or employee vehicles only, not the general public. Commercial sites shall be restricted to office-type or similar occupancies that are not primarily intended for use by the public.

(Reason: The general public does not expect a hazardous operation to be occurring in a typical parking lot or for a fuel truck to be traversing such parking lot, temporarily fueling a vehicle, and moving on to the next area in the parking lot to fuel the next vehicle. Vehicular accidents occur in parking lots on a regular basis, but the presence of a fuel truck, especially one in the process of fueling a vehicle with gasoline, greatly adds to the potential risk involved in such accidents. By restricting such operations to the occupancies in question, the employees of the business may be adequately notified to expect such operations to occur in the parking lot.)

***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.

(Reason: To provide a consistent and reasonable means of regulating the use of portable LP-Gas containers in these situations. Reduces the hazard presented by portable containers when natural gas is already available. Please note that current State Law does not allow for the enforcement of any rules more stringent than that adopted by the State, so this amendment is only applicable as to the extent allowed by that State Law.)

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

Exceptions:

1. *{existing text unchanged}*

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

(Reason: To provide a consistent and reasonable means of regulating the use LP-Gas containers. Reduces the hazard presented by such containers when natural gas is already available. References regional amendment to IFC 6104.3.2. Please note that current State Law does not allow for the enforcement of any rules more stringent than that adopted by the State, so this amendment is only applicable as to the extent allowed by that State Law.)

***Section 6104.3; add Section 6104.3.3 to read as follows:**

6104.3.3 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.

(Reason: Allows for an alternate fuel source. Dwelling density must be considered and possibly factored into zoning restrictions. Reduces the hazard presented by over-sized LP-Gas containers. Please note that current State Law does not allow for the enforcement of any rules more stringent than that adopted by the State, so this amendment is only applicable as to the extent allowed by that State Law.)

***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 ~~NFPA 58~~ 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.

~~**Exception:** Vehicle impact protection shall not be required for protection of LP-gas containers where the containers are kept in lockable, ventilated cabinets of metal construction.~~

(Reason: NFPA 58 does not provide substantial physical protection [it allows raised sidewalks, fencing, ditches, parking bumpers as 'vehicle barrier protection'] of the container(s) from vehicular impact as is required and has been required historically, as per Section 312, i.e. bollard protection. Further, the exception to Section 6109.13 would allow for portable containers in ventilated metal cabinets to not require any physical protection whatsoever from vehicular impact, regardless of the location of the containers. Please note that current State Law does not allow for the enforcement of any rules more stringent than that adopted by the State, so this amendment is only applicable as to the extent allowed by that State Law.)

***** {Applicable to those jurisdictions adopting Appendix B}***
Table B105.2; change footnote a. to read as follows:

a. The reduced fire-flow shall be not less than ~~1,000~~ 1,500 gallons per minute.

(Reason: The minimum fire-flow of 1,500 gpm for other than one- and two- family dwellings has existed since the 2000 edition of the IFC, as well as the Uniform Fire Code before that. Little to no technical justification was provided for the proposed code change at the code hearings. The board believes that the already-allowed 75 percent reduction in required fire-flow for the provision of sprinkler protection is already a significant trade-off. The minimum 1,500 gpm is not believed to be overly stringent for the vast majority of public water works systems in this region, especially since it has existed as the requirement for so many years. Further, the continued progression of trading off more and more requirements in the codes for the provision of sprinkler protection has made these systems extremely operation-critical to the safety of the occupants and properties in question. In other words, should the sprinkler system fail for any reason, the fire-flow requirements drastically increase from that anticipated with a sprinkler-controlled fire scenario.)

END