The following sections, paragraphs, and sentences of the *2021 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.~~

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.

Amendments to the 2021 International Fire Code. The following sections of the 2021 Edition of the International Fire Code, the provisions of which shall be controlling within the limits of the Town of Bartonville boundaries, are hereby amended for the purpose of consistency with specific past practices and the recommendations of the North Central Texas Council of Governments (NCTCOG) Fire Advisory Board and the Denton County Emergency Services District No. 1 (DCESD1). The following text is from the NCTCOG, DCESD1 recommended amendments, and local amendments approved by the Town of Bartonville with previous fire codes.

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.

Amendments to the International Fire Code, 2021 Edition.
General Terms

1. Code official or fire code official. The fire chief or designee, Fire Marshal or designee, or member of the fire department charged with the duties of administration and enforcement of this code or a duly authorized representative.
2. Jurisdiction. All references to "jurisdiction" shall mean the Town of Bartonville, Texas.
3. Chief. All references to "Chief of the Bureau of Fire Prevention" shall be replaced with Fire Marshal."
4. Fire Marshal. All references to "Fire Marshal" shall include the Fire Marshal's designee.

***Section 101.1; amend to read as follows*:**

101.1 Title. These regulations shall be known as the fire code of the Town of Bartonville, hereinafter referred to as "this Code."

Section 102.1; change #3 to read as follows:

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

***Section 102.1.1 shall be added to read as follows*:**

Section 102.1.1 Reconstruction and remodel (all structures). Existing systems need not comply unless the total building remodel or expansion initiated after the effective date of this code, as adopted, exceeds 30% of the building. When cumulative building remodels or expansion exceeds 50%; the building must comply within 18 months of the permit application. Must comply with current fire codes in regards to:

1. Panic hardware
2. Fire alarms

3. Exit lights
4. Emergency lighting
5. Exits and exit ways
6. Fire Protection Systems

***Section 102.7; amend to read as follows*:**

Section 102.7 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 80 of the International Fire Code (IFC), and such codes when specifically adopted, and standards shall be considered ~~to be~~ part of the requirements of this code to the prescribed extent of each such reference ~~and as further regulated by Sections 102.7.1 and 102.7.2~~. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standards shall be considered to reference the amendments as well. Any reference to NFPA 70 or the ICC Electrical Code shall mean the Electrical Code, as adopted.

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.

***Section 102.7.3 shall be added to read as follows*:**

102.7.3 Current editions. The most currently published editions of NFPA shall be the Referenced Codes adopted. Specific reference is made for the adoption of NFPA 3: Standard for Commissioning of Fire Protection Life Safety Systems and NFPA 17A, including all associated appendices, specifically Appendix B and NFPA 96: Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations and Appendix B of NFPA 96.

***Section 103.1, amend to read as follow*s:**

103.1 General ~~Creation of agency.~~ ~~The [INSERT NAME OF DEPRARMENT] is hereby created and the offical in charge thereof shall be known as the *fire code official*. The function of the agency shall be implementation, administration and enforcement of the provisions of the code.~~ **General.** The Fire Code shall be enforced by the Denton County Emergency Services District No 1. The Denton County Emergency Services District No 1 is hereby established as the Fire Department of the Town of Bartonville.

***Section 104.1 is amended by adding Section 104.1.1 to read as follows*:**

104.1.1 Code Official. For the purpose of this code, "Code Official" shall mean the Fire Chief or his designated representative(s).

***Section 105.1 is amended by adding Section 105.1.7 to read as follows*:**

105.1.7 Failure to obtain permit or working without a permit. Any person who fails to obtain a permit or is conducting work without a permit approved by the Denton County Emergency Services District No 1 shall be liable to a fee of two (2) times the required permit fee figured in accordance with the fee schedule adopted by resolution of the Town council. A minimum fee of one-hundred twenty dollars ($120.00) in addition to the required permit fee will be assessed. Working without a permit shall include non-compliance of Sections 105.3.5 and 105.4.6.

Section 105.2.3 is amended by adding Section 105.2.3.1 as follows:

105.2.3.1 Time limitation of application. Reinstatement of expired permits will require the applicant to resubmit permit application and required documents and shall be liable for applicable permit fees.

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 105.4.6 shall be added to read as follows*:**

105.4.6 Retention of construction documents. One set of construction documents shall be retained by the Fire Code Official until final approval of the work covered therein. One set of approved construction documents shall be returned to the applicant, and said set, along with the Fire Department Permit, shall be kept on site of the building or work at all times during which the work authorized thereby is in progress. Construction documents shall be retained by the installing company as required by the Texas State Fire Marshal's Office, after final approval of work covered therein.

Section 105.6.25 shall be added to read as follows:

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

Section 105.6.51 shall be added to read as follows:

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

Section 105.7 shall be added to read as follows:

105.7 Required construction permits. The code official is authorized to issue construction permits for work set forth in Sections 105.7.1 to 105.7.26.

***Section 105.7.12 shall be added to read as follows*:**

105.7.12 Gates and barricades across fire apparatus access roads. A construction permit shall be required to install any system that during normal operation delays or prevents entry to, or obstructs a fire lane or street into, the premises of a residential or commercial area.

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 105 is amended by adding Section 105.8 to read as follows*:**

105.8 Permit and other fees. Fees for each permit required, plan reviews, inspections, re-inspections, other regulatory storage/handling, and equipment use or process established by resolution of DCESD1

from time to time and made a part of the District's Fee Schedule shall be paid prior to the issuance of such permit, performance of such service, or use of such equipment.

***Section 106.2 is amended by adding Section 106.2.3 to read as follows*:**

106.2.3 Inspection of existing premises. The Fire Chief, or designated representative, shall inspect all buildings, premises, or portion thereof as often as may be necessary. An initial inspection and one (1) re-inspection shall be made free of charge. If the Fire Chief or his designee is required to make follow-up inspections after the initial inspection 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 premises shall pay said fee or fees within thirty (30) days of being billed as a condition to continue lawful occupancy of the building or premises.

Fees for follow-up inspections after initial and re-inspection shall be as set forth in the fee schedule as adopted by resolution of the Town council.

Recurring violations from year to year will result in issuance of a citation and shall not be restricted to the inspection and re-inspection procedure as indicated in this Section.

***Section 107.4 shall be amended as follow*s:**

107.4 Work commencing before permit issuance. Any ~~A~~ 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 ~~subject to a fee established by the applicable governing authority, which shall be in addition to the required permit fees~~ fined a minimum of $250.00 or double the permit fee, whichever is greater. Each day work continues shall constitute a separate and distinct violation.

***Section 110.4 shall be added to read as follows*:**

110.4 Violation Penalties. Any person, firm, or corporation violating any of the provisions or terms of this Article or Code adopted herein or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under the provisions of this code shall be guilty of a misdemeanor and, upon conviction in the Municipal Court of the Town of Denton County Emergency Services District No 1, shall be subject to a fine not to exceed two thousand and no/100 dollars ($2,000.00) for each offense. Each and every day any such violation shall continue shall be deemed to constitute a separate offense.

***Section 112.3; add sentence to end of paragraph to read as follows*:**

Section 112.3 Notice of Violation; Citation
The fire code official is authorized to issue citations alleging violations of this code for prosecution in the Municipal Court. Notice under this section is not a prerequisite to prosecution of violations of this code.

***Section 112.4 shall be added to read as follows*:**

112.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not more than two thousand and no/100 ($2,000.00) dollars for each offense, and each and every day such violation shall continue shall be deemed to constitute a separate offense.

***Section 112.4.1 Violation penalties. Shall be amended to read as follows*:**

Persons who shall violate a provision of this code, or shall fail to comply with any of the requirements thereof, or who shall erect, install, alter, repair, or do work in violation of the *approved construction documents*, or directive, of the *fire code official*, or of a permit, or a certificate, used under provisions of this code, shall be fined a minimum of $500.00 or double the permit fee, whichever is greater. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

***Section 112.4.2 shall be added to read as follows*:**

112.4.2 Citations. It is the intent of this division 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 if the violation is determined to be an immediate threat to life safety.

***Section 112.4.3 is added to read as follows*:**

112.4.3 Compliance with codes. Any person or entity that violates, disobeys, omits, neglects, or refuses to comply with, or who resists the enforcement of the provisions of this or other codes as referenced in this ordinance shall be guilty of a misdemeanor and subject to the penalties as set forth in the Code of Ordinances of the Town. In addition to these penalties, the fire code official or his or her designee is authorized to close any business or shut down any operation when any hazard or condition exists therein that poses a serious and imminent threat to life or property. Any reasonable method may be used to affect closure, including, but not limited to, disconnection of utilities and padlocking of any doors. Any person in control of or occupying any premises ordered closed or performing or overseeing any operation ordered discontinued who refuses an order to leave or to discontinue is guilty of a misdemeanor and subject to the penalties described herein.

***Section 113.4 Shall be amended to read as follows*:**

113.4 Failure to comply. Any person, firm, or corporation who shall continue any work after having been served with a stop work order, except such work as that person, firm, or corporation is directed to perform to remove a violation or unsafe condition, shall be ~~subject to fines established by the authority having jurisdiction.~~ fined not less than Five Hundred Dollars ($500.00) or more than Two Thousand Dollars ($2,000.00).

Section 202 is amended by adding definitions for the phrases "ADDRESSABLE FIRE DETECTION SYSTEM," "ANALOGUE ADDRESSABLE FIRE DETECTION SYSTEM," "DEFENDING IN PLACE," "SELF-SERVICE STORAGE FACILITY," "STANDBY PERSONNEL," and "UPGRADED OR REPLACED FIRE ALARM SYSTEM" "AMBULATORY HEALTH CARE FACILITY," "ATRIUM," "FIRE WATCH," "FIREWORKS," "HIGH-PILED COMBUSTIBLE STORAGE," "HIGH RISE BUILDING," AND "REPAIR GARAGE" 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.

ANALOG 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.

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.

[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.)

CHANGE OF OCCUPANCY. A change in the purpose or level of activity within a building that involves a change of ownership, change in occupant, or the change in the designated use-type of the building as described in Chapter 3 of this code and the application of the requirements of this code. The definition shall also apply to usage of the surrounding site and access to and from the building, structure, or site, as necessary to achieve the purpose of this code and to obtain compliance with other codes and ordinances of this jurisdiction. No building or lease space shall be allowed to change use, occupant, ownership, or classification types without meeting all the requirements of this code.

ELECTRICAL CODE. Electrical Code shall mean NFPA 70, the National Electrical Code, as adopted by this jurisdiction. For the purpose of this code, all references to NFPA 70 and/or the ICC Electrical Code shall be assumed to mean the Electrical Code as defined herein.

FIRE ALARM SYSTEM. A fire alarm system shall include but not limited to the following:

- Manual pull stations at all required exits.
- Notification throughout the entire building.
- Systems installed to monitor a fire sprinkler system shall also be considered a Fire Alarm System

[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.)*

EMERGENCY ACCESS EASEMENT. An access road or fire lane located on private property dedicated by the owner(s) of the property to provide fire apparatus access.

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.)

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

HIGH-RISE BUILDING. A building with an occupied floor located more than 55 feet (16,764 mm) above the lowest level of Fire Department vehicle access.

REPAIR GARAGE. A building, structure or portion thereof used for servicing or repairing motor vehicles. This occupancy shall also include garages involved in minor repair, modification and servicing of motor vehicles for items such as lube changes, inspections, windshield repair or replacement, shocks, minor part replacement, and other such minor repairs.

(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
- Replacing boards of the same model with chips utilizing the same or newer firmware

The following are not considered an upgrade or replacement:

- Firmware updates
- Software updates

(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:

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~~ Denton County Fire Marshall Office 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:

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

1. Portable outdoor fireplaces used at one- and two-family dwellings.
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 307.6 shall be added to read as follows:

Section 307.6 Logging of Open Burning. Persons desiring to kindle a fire for the recognized silvicultural or range or wildlife management practices, prevention of control of disease, pests, open burning, trench burns, bonfires, or recreational fires shall first contact Denton County Office of Emergency Services (County Fire Marshal) and determine if the day of the burn is an approved burn day. Fires of these types are prohibited on non-burn days. Open fires must be logged with the Denton County Office of Emergency Services prior to kindling and notice given to the Denton County Emergency Services District No 1.

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 of 308.1.4.1 is amended by adding Section 308.1.4.1 to read as follows:

308.1.4.1 Burning of refuse prohibited. The burning of refuse in a barbeque grill or open-flame cooking device is not an approved method for refuse disposal, is declared a public nuisance, and is prohibited anywhere in the Town of Bartonville. Refuse shall mean and include garbage, rubbish, and trade waste defined as follows:

Garbage. Garbage shall mean animal and vegetable matter such as that originating in houses, kitchens, restaurants, hotels, produce markets, food service or processing establishments, greenhouses, hospitals, clinics, or veterinary facilities.

Rubbish. Rubbish shall mean solids not considered to be highly flammable or explosive such as, but not limited to, rags, old clothes, leather, rubber, carpets, wood, excelsior, paper, ashes, tree branches, yard trimmings, furniture, metal food containers, glass, crockery, masonry, and other similar materials.

Trade Waste. Trade waste shall mean all solid or liquid material resulting from construction, building operations, or the prosecution or any business, trade or industry such as, but not limited to, plastic products, cinders and other forms of solid or liquid waste materials.

Materials Producing Dense Smoke Prohibited. The burning of rubber, asphaltic materials, combustible and flammable liquids, impregnated wood or similar materials which produce dense smoke are considered objectionable, a hazard, a public nuisance to the community, and are strictly prohibited.

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 308 Open Flames is amended by adding Section 308.5 and subsections to read as follows:

Section 308.5; Open burning
Section 308.5.1, 308.5.2 shall be amended to add the following:
Section 308.5.1; Multifamily structure.
It shall be a violation of this code for any person to use, allow, or permit the use of a fixed or portable grill or cooking device that uses an open flame or electrical heating element within ten (10) feet of any multi-family structure, under any covered portion of a multi-family structure, under any covered parking structure, on any roof or portion thereof.

Section 308.5.2 Sign.
It shall be a violation of this code for any person to own or manage any multi-family structure without installing and maintaining on each balcony, patio, landing, or similar structure of each dwelling unit an approved sign readily visible to the occupants that prohibits the use of any grill, hibachi, smoker, electrical heating element, or similar apparatus within ten (10) feet of all apartment structures. Signs shall be at least thirty (30) square inches with the word "PROHIBITED" in one (1) inch letter and the remaining message in at least one-fourth (1/4) inch letter, red on white, and provide the following warning:

PROHIBITED- THE USE OF ANY GRILL, HIBACHI, OR SMOKER IN OR WITHIN TEN FEET OF ALL APARTMENT STRUCTURES, PATIOS AND CARPORTS. DCESDNO.1 FIRE CODE - FINE UP TO $2000.00

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 401.3 is amended by adding Section 401.3.4 to read as follows*:**

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

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.

Exceptions:
{No change.}
{No change.}
Notification of teachers/staff having supervision of light- or sound-sensitive students/occupants, such as those on the autism spectrum, for the protection of those students/occupants shall be allowed prior to conducting a drill.

(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 and before vertical construction with combustible material has begun. , ~~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 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)~~ 16 feet (4876.8 mm).

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 or where necessary to meet the public safety objectives of the jurisdiction.

(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 the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities~~. Construction of all fire lanes shall be in accordance with the Unified Development Code, the Engineering Design Manual, and this section. Fire lanes shall be constructed of a 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.

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. 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.

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

***Section 503.2.4 shall be amended as follows*:**

503.2.4 Turning radius. The required turning radius of a fire apparatus access road shall be ~~determined by the fire code official~~ in accordance with this section. Fire lane dimensions established by Appendix D, or other sections of this Code shall be superseded by the criteria established by 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-four feet (54') and an inside radius of thirty feet (30').

***Section 503.2.7 shall be amended as follows*:**

503.2.7 Grade. The grade of the fire apparatus access road shall be within the limits established by the fire code official ~~based on the fire department's apparatus~~. 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 operations 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.

***Section 503.2.8 shall be amended to read as follows*:**

503.2.8 Angles of approach and departure. The angles of approach and departure for a fire apparatus access road shall be within the limits established by the fire code official ~~based on the fire department's apparatus~~. 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 on the hazard being protected or the general topography of the lot. Written approval from the fire code official shall be required.

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~~.~~, whether attended or unattended for any period of time. Persons in charge of a construction project, such as, but not limited to, a General Contractor, are responsible to ensure that fire apparatus access roads are kept clear of vehicles and other obstructions at all times and may be issued a citation for non-compliance under this section. 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. The Fire Chief and Police Chief, and their designated representatives, are authorized to remove or cause to be removed any material, vehicle, or object obstructing a fire apparatus access road at the expense of the owner of such material, vehicle, or object.

503.4.1 ~~Traffic calming devices.~~ ~~Traffic calming devices shall be prohibited unless approved by the fire code official.~~ **Obstruction and Control.** No owner or person in charge of any premises served by a fire

lane or access easement shall abandon, restrict, or close any fire lane or easement without first securing from the Town approval of an amended plat or other acceptable legal instrument showing the removal of the fire lane.

503.4.2 Speed control devices. Speed bumps or other similar obstacles designed to slow the speed of traffic and that have the effect of slowing or impeding the response of fire apparatus shall require a permit as required in Section 105.7 of this code prior to installation. Speed control devices shall be constructed out of concrete, by approved molded plastic, or a similar material.

(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 503.6 is amended to read as follows*:**

503.6.1 Security Gates. When mechanically operated gates or barriers are provided, or required, across a fire apparatus access road, an approved emergency vehicle traffic preemption device shall be provided compatible with the fire department's apparatus. The installation of security gates across a fire apparatus access road shall be approved by the ~~fire code official~~ Fire Marshal. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall always be operational. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed, and installed to comply with the requirements of ASTM F 2200.

***Section 503.6.1.1 and subsections shall be added to read as follows*:**

503.6.1.1 Distance from street, sidewalk, roadway, or right-of-way. Gates shall be located on private property a minimum of 30 feet from the property line being crossed by the drive or 30 feet from the nearest edge of the roadway.

Section 503.6.1.2 Electronic operation. All main gates shall be electrically operated. A secondary/emergency power source must be available and brought online automatically upon loss of primary power to the access gates. The secondary/emergency power source shall automatically open the gates. A manual disconnect is required in the event of complete power failure. The manual disconnect shall be placed in a weather-tight box, with a piano-type hinge on one side and a Knox Box PL-1 padlock and hasp on the other side.

Section 503.6.1.3 Open with key-operated switch. All main gates shall open with the fire department Knox K.S. #2 key-operated switch. The Knox key-operated switch shall be provided and installed by the owner. The key-operated switch shall be located 10 feet from the gate, on the left side of the approach, and placed on a pedestal with the key switch facing the fire lane or road. The key switch shall be no closer than 4 feet 6 inches or no farther than 5 feet 5 inches from the ground.

Section 503.6.1.4 Access codes. It shall be the owner's responsibility to program the security gate and provide the fire department with the access code, and to maintain DCESD No 1's accessibility through the assigned access code.

Section 503.6.1.5 Medians. Where a security gate is installed with a median, the entry side of the gate shall have a minimum opening of 30 feet (measured back of curb to back of curb.

Section 503.6.1.6 Optically controlled emergency entry devices. All electronic security gates, commercial properties, and residential subdivisions shall be equipped with an optically controlled emergency override device (Opticom) that is compatible with the optical activation device installed on fire apparatus. The devices shall be placed in both directions of travel to provide for the opening of gates as the fire apparatus approaches and exits the property. Permits for installation are required, and the Fire Marshal shall test and approve the installation upon completion to determine compliance.

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 ~~½ inch (12.7 mm)~~ 1 inch. 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.

505.1.1 Single family homes. R-3 Single Family occupancies shall have approved numerals of a minimum 4" high, ⅝" stroke ½ inch stroke and a color contrasting with the background clearly visible and legible from the street fronting the property and rear alleyway where such alleyway exists.

505.1.2 Multifamily Communities. Street Address shall be a minimum of 12" high with a 2" stroke. Individual building numbers shall be a minimum of 18" high with a 3" stroke. Buildings over 100 feet in length require a minimum of two (2) numbers per building. Apartment spread numbers shall be a minimum of 7" high with a one inch stroke and corridor spread numbers shall be a minimum of 4" high with a ⅝" brush stroke. Individual apartment unit numbers shall be a minimum of 4" in height with a ⅝" stroke.

505.1.3 Large Office and Warehouse Buildings. Address must be visible from all access directions. Number shall be a minimum of 24" in height with a 4" stroke. Buildings over 500 feet long shall have two address locations if more than one access point is visible. Suite numbers shall be required for multi-tenant complexes and shall be located over the front door and on the rear door, 6" in height with a 1" brush stroke.

505.1.4 Shopping Centers, High Rise Buildings, and Other Applications. A minimum of 12" high numbers with a 2" brush stroke shall be visible from all access directions. Suite numbers are required over the door with 4" high numbers with a ⅝" brush stroke. Buildings beyond 100 feet from the street and 10,000 square feet shall install 18" numbers with a 3" stroke.

505.1.5 Marquee and Monument. Addresses installed on a marquee located next to the street will require numbers 12" high with a 2" brush stroke to be located a minimum of 3 feet above grade. Marquee and Monument signs must meet Town of Bartonville Sign Ordinance Requirements.

(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 506.1 is amended by adding the following sentence at the end of the section*:**

All new and existing occupancies, except single-family residences, shall provide (a) Knox box(es) as specified in the Fire Marshal's Office written policy statement.

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 507.5.1 is amended to read as follows*:**

507.5.1 Where required. ~~Where a portion of the facility or building hereafter constructed or moved into within the jurisdiction is more than 400 feet (122 m) from a hydrant on a fire apparatus 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. Exceptions: 1. For Group R-3 and Group U occupancies, the distance shall be 600 feet (183 m). 2. For buildings equipped 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).~~ As properties develop, fire hydrants shall be located at all intersecting streets and at the maximum spacing indicated in Table 507.5.1. Distances between hydrants shall be measured along the route that fire hose is laid by a fire vehicle from hydrant to hydrant.

TABLE 507.5.1
MAXIMUM DISTANCE BETWEEN HYDRANTS

OCCUPANCY	SPRINKLERED	NOT SPRINKLERED
Residential (1 & 2 Family)	600 feet	500 feet
Residential (Multi-Family)	400 feet	300 feet
All Other	500 feet	300 feet

There shall be a minimum of two (2) fire hydrants serving each property within the prescribed distance listed in Table 507.5.1.
Protected Properties. Fire Hydrants shall be installed along fire lanes with spacing as required for street installations specified in 507.5.1. In addition, hydrants required to provide supplemental water supply for automatic fire protection systems shall be within 100 feet of the Fire Department connection (FDC) for such systems.

***Sections 507.5.1-507.5.1.3 shall be added to read as follows*:**

Section 507.5.1 Where required. When a portion of the facility or building hereafter constructed or moved into, or within the jurisdiction, is more than 500 feet from a hydrant on the fire apparatus 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 Marshal.

Exception: For Group R-3 and Group U occupancies, the distance requirement shall be 300 feet.

Exception 2: {deleted}

Section 507.5.1.2 Location. The location of fire hydrants on private property or along fire access roads shall be approved by the Fire Marshal.

***Section 507.5.1.2 Fire system connections to read as follows*:**

Section 507.5.1.2 Fire department system connections. Fire hydrants shall be located within a 100-foot hose lay of the Fire Department Connection (FDC). Fire Department Connections, when remotely located, shall have a 42” by 42” concrete pad below each connection.

Section 507.5.1.3 Requirements when not on public streets. Fire hydrants not installed on a public street shall be looped to provide a water supply from 2 directions.

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 510; read as follows*:**

510.1 Emergency responder communication coverage in new buildings. Approved in-building~~, two-way~~ emergency responder communication ~~coverage~~ enhancement system (ERCES) for emergency responders shall be provided ~~in all new buildings. In-building, the twoway emergency responder communication coverage within the building shall be based on the existing coverage levels of the public safety communication systems utilized by the jurisdiction, measured at the exterior of the building. This section shall not require improvement of the existing public safety communication systems.~~ , the following buildings:

1. High Rise Buildings
2. The total building area is 10,000 square feet or more.
3. The total basement area is 10,000 square feet or more; or
4. There are floors used for human occupancy more than 30 feet below the finished floor of the lowest level of exit discharge.
5. Buildings or structures where the Fire Marshal determines that in-building radio coverage is critical because of its unique design, location, use or occupancy.

Exceptions:

~~1. Where approved by the building official and the fire code official, a wired communications system in accordance with Section 907.2.13.2 shall be permitted to be installed or maintained instead of an approved radio coverage system.~~
~~2. Where it is determined by the fire code official that the radio coverage system is not needed.~~

1. Buildings and areas of buildings that have minimum radio coverage signal strength levels of the local 800 MHz Radio System within the building in accordance with Section 510.4.1 without the use of an emergency responder communications enhancement system (ERCES).
2. In facilities where emergency responder communication coverage is required and such systems, components or equipment required could have a negative impact on the normal operations of that facility, the fire code official shall have the authority to accept an automatically activated emergency responder communication coverage system.
3. One- and two-family dwellings and townhouses.
4. Subject to the approval of the fire code official, buildings other than high-rise buildings, colleges, universities, and buildings primarily occupied by Group E or I occupancies that have completed a

Mobile Emergency Responder Radio Coverage application and submitted payment as outlined in the application.

510.1.1; Compliance verification.
New buildings require compliance verification testing by an approved ERCC third-party special inspector. A copy of the compliance verification special inspection report shall be submitted to the building official for review and archiving to the project records prior to the project final approval or issuance of a *Certificate of Occupancy*.

Exception: Buildings without basements and three stories or less in height with an aggregate total building area of <10,000 square feet.

510.2; Emergency responder communication enhancement system in existing buildings. Existing buildings shall be provided with approved in-building, emergency responder communications enhancement system for emergency responders as required in Chapter 11.

***Section 605.4 and 605.4.2.2; change to read as follows*:**

605.4 Fuel oil storage systems. Fuel oil storage systems ~~for building heating systems~~ shall be installed and maintained in accordance with this code. Tanks and fuel-oil piping systems shall be installed in accordance with Chapter 13 of the *International Mechanical Code* and Chapter 57.

605.4.1 Fuel oil storage in outside, aboveground 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.

605.4.1.1 Approval. Outdoor fuel oil storage tanks shall be in accordance with UL 142 or UL 2085 and also listed as double-wall/secondary containment tanks.

605.4.2 Fuel oil storage inside buildings. Fuel oil storage inside buildings shall comply with Sections 605.4.2.2 through 605.4.2.8 and Chapter 57.

605.4.2.1 Approval. Indoor fuel oil storage tanks shall be in accordance with UL 80, UL 142, or UL 2085.

605.4.2.2 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 (2,498 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 (4,996 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. ~~The tank shall be listed as a secondary containment tank, and the secondary containment shall be monitored visually or automatically.~~
3. 3,000 gallons (11,356 L) ~~in buildings equipped with an automatic sprinkler system in accordance with Section 903.3.1.1~~, 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. ~~The tank shall be listed as a secondary containment tank, as required by UL 2085, and the secondary containment shall be monitored visually or automatically.~~

***606.2 shall be added to read as follows*:**

606.2 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.

Section 704.1; now 704.1.1 change to read as follows:

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

Section 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.)

Add Sections 901.11 Certification, Section 901.12 Failure of system, and Section 901.13 Message alarms. To read as follows:

Section 901.11 Certification. A notarized certification indicating all work has been performed as permitted and that the work meets code requirements must be submitted at the final inspection.

Section 901.12 Failure of system. All fire alarm systems shall be designed and constructed so the failure, malfunction, or removal of any single device or failure of the wiring to a device does not interfere with the operation of other devices in the system.

Section 901.13 Message alarms. Pre-recorded or voice message fire alarms shall not be approved unless accompanied by a fire alarm signal of audio-visual devices that meet the minimum standards of the Americans with Disabilities Act (ADA).

***Section 901 General is amended by changing Section 901.3 and 901.5 as shown in the International Fire Code to read as follows*:**

Section 901.3.1 Permit required. Permits shall be required as set forth in Sections 105.6 and 105.7 and as required by this section. A permit shall be required for the installation, reconsideration, modification, moving, or alteration of any life safety system, including but not limited to fire sprinkler systems, fire alarm systems, fixed extinguishing systems, access control systems, and carbon dioxide sensing and monitoring systems. Work shall not begin on any system without first obtaining approved plans. Any person, firm, or corporation who violates this requirement shall be liable for a fine that is two times the cost of the Permit or Five Hundred Dollars ($500.00), whichever is greater.

> **Exemption:** Emergency repairs due to system malfunctions or discharging may begin, providing a permit is obtained as soon as possible, but no later than the next business day.

Section 901.3.2 Permit application. The permit application shall be submitted to DCESD1. The following shall be included with the plan submission: a CD or other media, as approved by the Fire Marshal, containing state license, plan drawings, calculations, and spec sheets in PDF format.

Section 901.3.3 Permit fee. The permit fee for the construction, repair, alteration, or relocation of a fixed system shall be in accordance with the fee schedule adopted by the DCESD1.

Section 901.5 Installation acceptance testing. Fire detection and alarm systems, fire extinguishing systems, fire hydrant systems, fire standpipe systems, fire pump systems, private fire service mains, and all other fire protection systems and appurtenances thereto, shall be subject to acceptance tests, as contained in the installation standards and as approved by the fire code official. The fire code official shall be notified before any required acceptance testing. No system shall be approved until a complete inspection of materials and a functional test has been completed and witnessed by the Fire Marshal. The installer/technician must be present for all inspections and testing.

Section 901.6.1; add Section 901.6.1.1 to read as follows:

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

1. The piping between the Fire Department Connection (FDC) and the standpipe shall be backflushed 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}*
901.7.1 Fire Watch is the responsibility of the property owner. The owner shall be required to hire a private security firm to supply two personnel for each of three 8-hour shifts or during the occupied hours of the business to monitor for fire conditions and have the means necessary for contacting 911 immediately. The fire watch shall remain in effect until the life safety systems are back in service. Should the fire watch option be declined, the entire building shall be evacuated and closed until all repairs have been made and a re-inspection has been performed by the fire code official.

(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 Automatic Sprinkler Systems is amended as follows*:**

***Section 903.1 is amended by adding subsection 903.1.2 and 903.1.3 to read as follows*:**
903.1.2 Residential sprinklers. Unless specifically allowed by this Code, residential sprinkler systems installed in accordance with NFPA 13D (1-2 family dwelling) or NFPA 13R (multi-family) shall not be granted exemptions or reductions, commonly known as "trade-offs" permitted by other requirements of this Code. Additionally, residential sprinkler systems installed in accordance with NFPA 13R shall include attic protection.

Section 903.2; add paragraph to read as follows and delete the Exception for telecommunications buildings: 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."

***Section 903.2 Where required. Replace the exception and amend as follows*:**

Approved automatic sprinkler systems shall be provided in all new buildings and structures, including residential, where the **total area under roof** is 5,000 square feet or greater. In reference to this code, the fire sprinklers requirement at 12,000 sq. ft. is changed to 5,000 sq. ft.

This section is also amended by replacing the exception with the following exceptions:

Exceptions:

1. Open parking garages in compliance with Section 406.3 of the International Building Code, provided fire department standpipes and connections are installed in such a way that no portion of the garage is more than 100 feet, unobstructed hose lay from the connection.
2. Single-family residential, which is not connected to the municipal water system, are exempt from the requirement of an automatic sprinkler system even if the total area under the roof is 5,000 square feet or greater.

***Section 903.2.4.2; change to read as follows*:**

903.2.4.2 Group F-1 distilled spirits. An automatic sprinkler system shall be provided throughout a Group F-1 fire area used for the manufacture of distilled spirits involving more than 120 gallons of distilled spirits (>16% alcohol) in the fire area at any one time

***Section 903.2.9.3; change to read as follows*:**

903.2.9.3 Group S-1 distilled spirits or wine. An automatic sprinkler system shall be provided throughout ~~all buildings containing~~ a Group S-1 ~~occupancy~~ fire area used for the bulk storage of distilled spirits or wine involving more than 120 gallons of distilled spirits or wine (>16% alcohol) in the fire area at any one time.

***Section 903.2.8. Group R is amended to read as follows*:**

Section 903.2.8. Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area. An automatic sprinkler system shall be provided throughout all buildings with a Group R-2 occupancy where the fire area is 2 stories in height, including basements, or where the building has more than 3 units. Any Group R-2 occupancy two (2) or more stories in height shall be required to have a sprinkler system meeting the requirements of NFPA Standard 13.

***Section 903.2.9.2 Bulk Storage of Tires; Section is amended by deleting that section and replacing it with a new Section 903.2.9.2 to read as follows*:**

Section 903.2.9.2 Bulk storage of tires. Buildings and structures where the area for the storage of tires exceeds 10,000 cubic feet shall be equipped throughout with an automatic fire sprinkler system meeting the requirements of NFPA Standard 13.

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.)

***Section 903.2.11.3 is amended to read as follows*:**

903.2.11.3 Buildings 35 feet or more 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, measured to the finished floor.

Exception: {Delete}

***Section 903.2.11 is amended by adding Sections 903.2.11.7, 903.2.11.8, and 903.2.11.9 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 fire-extinguishing system.

***Section 903.2.11.9 shall be added to read as follows*:**

903.2.11.9 Buildings 5,000 square feet or greater, under roof, an automatic sprinkler system shall be installed throughout all buildings and any portion of a building that meets any one of the following criteria listed below:

1. A building area 5,000 sq. feet or greater
2. A tenant space 5,000 sq. feet or greater
3. An existing building that is enlarged to 5,000 sq. feet or greater
4. A tenant space within an existing building that is enlarged to be 5,000 sq. feet or greater

For the purpose of this provision, firewalls and fire barriers shall not define separate buildings.

Exception: {Delete}

903.2.11.9.1 Modifications, repairs, and additions to existing buildings. An automatic sprinkler system shall be installed throughout in accordance with NFPA 13, 13D, or 13R as applicable and this code in all existing buildings when:

1. Enlarged to be 5,000 square feet or greater.
2. Greater than 5,000 square feet and the square footage increased.
3. The cumulative remodel of any building, over any period of time, from the original adoption of this ordinance (Ord. No. 3013-5-11, § 1, 5-24-2011) that is equal to or is greater than 5,000 square feet.
4. Fifty (50) percent or more of the roof assembly is replaced, or repaired, due to fire damage or structural failure, or when the removal of existing fire rated assemblies result in an increase of the original basic allowable area.

5. Required to be protected in accordance with this Code or other provisions of Article III of the ALDC.

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; change to read as follows*:**

903.3.1.2 NFPA 13R sprinkler systems. Automatic sprinkler systems in Group R occupancies shall be permitted to be installed throughout in accordance with NFPA 13R where the Group R occupancy meets all of the following conditions:

1. Four stories or less above grade plane.
2. The floor level of the highest story is 35 feet (10668 mm) or less above the lowest level of fire department vehicle access.
3. The floor level of the lowest story is 35 feet (10668 mm) or less below the lowest level of fire department vehicle access.

{No change to the remainder of the section.}

Section 903.3.1.2.2; change to read as follows:

903.3.1.2.2 Corridors and balconies. Sprinkler protection shall be provided in all corridors and for all balconies.

{Delete the rest of this section.}

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.

903.3.1.3.1 Attached Garages and Media Closet (A/V Closet) to read as follows:
When sprinkler systems are required in a structure, sprinklers are required in:

1. Attached garages

Exception: Attached garages that do not share a wall with a sprinklered, conditioned space.

2. In a media closet (A/V closet) regardless of closet square footage.

903.3.1.3.2 Hydrostatic Test
All new systems shall be hydrostatically tested in accordance with NFPA 13.

(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 903.3.7 shall be added to read as follows:

Section 903.3.7 Fire Department Connections. Is amended by deleting that section and adding the following section to read as follows:
Section 903.3.7 Fire Department Connections. The location of Fire Department Connections shall be approved by the fire code official. Locking caps of an approved style or vendor may be required by the fire code official. Locking caps shall be installed as replacements for lost or damaged caps when deemed necessary by the fire code official to address tampering problems at existing facilities. The FDC shall be labeled as "FDC" with a white background and red reflective lettering that is a minimum of 6 inches in height for each letter. A sign will be affixed to the FDC connection.

Section 903.3.7.1 is amended to add the following:

903.3.7.1 Missing or damaged FDC caps. Missing or damaged FDC caps shall be replaced with locking "Knox" FDC caps. All new FDCs and standpipe hose valve connections shall have Knox caps or plugs installed.

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 903.4.5 to read as follows:

903.4.5 ~~Testing and maintenance.~~ ~~Automatic sprinkler systems shall be tested and maintained in accordance with Section 901.~~ **Monitoring and Supervising.** All valves on connections to water supplies, sectional control and isolation valves, and other valves in supply pipes to sprinklers and other fixed water-based fire suppression systems shall be supervised and monitored at all times. Graphic maps shall be posted in the sprinkler riser room depicting sprinkler zones. Proper tagging and/or signage complying with Fire Department specifications shall identify all valves as to their function and identify their location.

Section 903.7 shall be added to read as follows:

Section 903.7 Automatic Sprinkler System Room Access. Sprinkler system risers providing protection for multi-family and commercial buildings must be located in a ground-floor room directly accessible from the exterior of the building. The door shall be labeled as "SPRINKLER RISER ROOM" with a white background and red reflective lettering that is a minimum of 6 inches in height for each letter. The minimum size of the room shall be 36 sq. ft., with the minimum dimension being 6 ft. The outside edge of the Riser stub into the building shall be a minimum of eighteen inches (18") from the wall and riser piping, and once stacked, shall be a minimum of eighteen inches (18") from the outside edge of the piping to the inside edge of the finished wall. When approved by the fire code official, smaller rooms may be permitted.

Section 903.8 Installation schedule is amended by adding 903.8 Installation schedule, to read as follows:

Section 903.8 Installation schedule. Approved fire sprinkler systems shall be operational in a building under construction when:

1. The building is sufficiently constructed to the point that the exterior sheathing and roof have been installed; or
2. At the start of combustible interior construction; or
3. When there is an accumulation of combustible material within the building, including, but not limited to, building supplies, rubbish, and furniture; or
4. When the building goes under a conditioned atmosphere.

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 905.8; change to read as follows:

905.8 Dry standpipes. Dry standpipes shall not be installed.

Exception: Where subject to freezing and in accordance with NFPA 14. Additionally, 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 Supervisory alarm.

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.)

Section 906.1(1); delete Exception 3.

Section 907.1.4; add to read as follows:

907.1.4 Design Standards. All alarm systems, new or replacement, shall be addressable. Alarm systems serving more than 20 smoke detectors shall be analog addressable. A system employing a DACT shall employ one telephone landline as the primary. In addition, one of the following transmission means shall be employed as the backup line:

- One-way private radio alarm system
- Two-way RF multiplex system
- Transmission means complying with NFPA 72

Exception: Existing systems need not comply unless the total building remodel or expansion initiated after the effective date of this code, as adopted, exceeds 30% of the building. When cumulative building remodel or expansion exceeds 50% of the building must comply within 18 months of permit application.

907.1.5 Devices Minimum fire alarm design shall include a manual pull station at each exit and occupant notification devices throughout.

(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.-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: {Delete.}

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 907.2.10; change to read as follows:

907.2.10 Group S. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group S public- and self-storage occupancies ~~three stories or greater in height~~ for interior corridors and interior common areas. Visible notification appliances are not required within storage units.

Exception: {No change.}

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 907.6.6 is amended by adding Section 907.6.6.3 to read as follows:

907.6.6.3 Communication requirements. All alarm systems, new or replacements, 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.

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 913.4 is amended by adding the following sentence at the end of the section:

The fire-pump system shall also be supervised for "loss of power," "phase reversal," and "pump running" conditions by supervisory signal on district circuits.

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 1003.6 Means of egress continuity is amended by adding Section 1003.6.1 vehicle parking, to read as follows:

Section 1003.6.1 Vehicle parking. No motor vehicle shall be parked within 10 feet of any patio, stairs, or egress path at any apartment, multi-family building, hotel, motel, educational occupancy or commercial structure unless in an approved parking space.

Section 1006.2.1; change Exception #3 to read as follows:

1006.2.1 Egress based on occupant load and common path of egress travel distance. Two exits or exit doorways from any space shall be provided where the design occupant load or the common path of egress travel distance exceeds the values listed in Table 1006.2.1. The cumulative occupant load from adjacent rooms, areas, or spaces shall be determined in accordance with Section 1004.2.

Exceptions:

1. {No change.}
2. {No change.}
3. Unoccupied rooftop mechanical rooms and penthouses are not required to comply with the common path of egress travel distance measurement.

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 1015.8 is amended by amending paragraph 1 to read as follows:

1. Operable windows where the top of the sill of the opening is located more than ~~75 feet (22 860 mm)~~ 55 feet (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.

{Remaining text unchanged}

Section 1020.2 Construction; add exception 6 to read as follows:

6. In unsprinklered 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 1024 Exit Passageways is amended by adding Section 1024.1.1 Exit ways – hotels, motels, and multi-family, to read as follows:

Section 1024.1.1 Exit ways – hotels, motels, and multi-family. All public exitways and balconies shall be constructed of material having a minimum of a class "C" flame spread rating (75 to 200 flame spread).

All balconies and landings utilized as exitways shall have a minimum length of 8 feet and a minimum width of 4 feet.

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 Sprinkler Systems change to read as follows:

> An automatic sprinkler system shall be provided in all existing buildings ~~in accordance with Sections 1103.5.1 through 1103.5.5~~ 5,000 square feet or larger in accordance with this section when there is a change of use, occupancy or hazard classification as defined in Chapter 4 of NFPA 13: Standard for the Installation of Sprinkler Systems is present. The fire sprinkler system installation shall be completed within twelve (12) months from the date of notification by the fire code official. The fire code official is authorized to decrease the installation timeframe based on the occupant and/or use of the building to ensure life safety.

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 1103.5.3 Group I-2, Condition 2; change last sentence to read as follows:

The automatic sprinkler system shall be installed as established by adopting this ordinance and within twelve (12) months of notification by the fire code official.

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 {No Change}

1203.1.5 Load Duration. Emergency power systems and standby power systems shall be designed to provide the required power for a minimum duration of 2 hours without being refueled or recharged unless specified otherwise in this code.

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

1203.1.6 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 1203.2.14 {No change.}

1203.2.15 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)

1203.2.16 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.

1203.2.17 {No change.}

1203.2.18 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.

1203.2.19 {No change.}

1203.2.20 Covered and Open Mall Buildings. Emergency power shall be provided in accordance with Section 907.2.19 and 914.2.3.

1203.2.21 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.

1203.2.22 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.

1203.2.23 Elevator Pressurization. Standby power shall be provided for elevator pressurization system as required by the *International Building Code*, Section 909.21.5.

1203.2.24 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.

1203.2.25 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.

1203.2.26 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.}

(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 is amended by amending Footnote's "h" 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.

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 3311.1; change to read as follows:

Section 3311.1 Required access. Approved vehicle access for firefighting and emergency response shall be provided to all construction or demolition sites. Vehicle access shall be provided to within ~~100 feet (30 480 mm)~~ 50 feet (15,240 mm) of temporary or permanent fire department connections. Vehicle access shall be provided by either temporary or permanent roads capable of supporting vehicle loading under all weather conditions. Vehicle access shall be maintained until permanent fire apparatus access roads are available. When fire apparatus access roads are required to be installed for any structure or development, access shall be approved prior to the time when construction has progressed beyond the completion of the foundation of any structure. Whenever the connection is not visible to approaching fire apparatus, the fire department connection shall be indicated by an approved sign.

Section 5003.2.2.1 Design and Construction; change #3 and #4, and add #6 to read as follows:

3. ~~Manual valves or~~ Automatic ~~remotely activated~~ fail-safe emergency shutoff valves shall be installed on supply piping and tubing ~~with ready access~~ at the following locations: {remainder of text unchanged}.
4. ~~Manual emergency shutoff valves and controls for remotely activated~~ Automatic emergency shutoff valves shall be ~~clearly visible~~ identified, ~~provided with ready access and identified in an approved manner~~ and the location shall be clearly visible, accessible, and indicated by means of a sign.
6. Bulk tank installations over 2,000 pounds will require an engineered foundation and construction permit per the 2021 International Building Code. Three complete sets of structural drawings, specifications, and analysis (calculations) shall be provided and shall bear the seal of a licensed Texas professional engineer.

Section 5003.3.1.4 Responsibility for cleanup; add a second paragraph to read as follows:

Any costs associated with a fire department response to accomplish control and mitigation of an unauthorized discharge may be charged back to the person, firm, or corporation responsible for the release.

***Section 5004.10 Supervision and monitoring; add to paragraph to read as follows*:**

In buildings with a monitored sprinkler or fire alarm/detection system, the carbon dioxide (CO^2) emergency alarm system shall be connected to the building fire alarm control panel. A fire alarm permit is required per the DCESD1 Fire Code.

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 5704.2.9.5; add Section 5704.2.9.5.3 to read as follows:

Section 5704.2.9.5.3 Combustible Liquid Storage Tanks Inside of Buildings.

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

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

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

Section 5704.2.9.6.1 shall be amended to read as follows:

5704.2.9.6.1 Locations where above-ground tanks are prohibited. The storage of Class I and Class II liquids in permanent above-ground tanks outside of buildings is prohibited within ~~the limits established by law as the limits of districts in which such storage is prohibited~~ Bartonville Town Limits unless approved by a Special Use Permit and with the approval of the Fire Marshal.

Section 5707.4 is amended by adding the following paragraph:

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.

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.)

Appendix L Requirements for Fire Fighter Air Replenishment Systems is amended by adding Section L101.2 to read as follows:

Section L101.2 Required Location. In new buildings, fill stations shall be required when any of the following conditions occur:

1. Any new building 5 or more stories in height.
2. Any new building with 2 or more floors below grade.
3. {delete}

Each stairwell shall have a supply riser. SCBA fill stations shall be located on odd numbered floors in the primary stairwell and on even numbered stairs in the secondary stairwells. The primary stairwell will be the stair located closest to the main entrance.

{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.)

Appendix C103.1 Hydrant Spacing; shall be amended to read as follows, and C103.2 and C103.3 shall be deleted:

C103 Fire Hydrant Spacing. ~~Fire apparatus access roads and public streets providing required access to buildings in accordance with Section 503 shall be provided with one or more fire hydrants, as determined by C102.1. Where more than one fire hydrant is required, the distance between required fire hydrants shall be in accordance with Section C103.2 and C103.3.~~

1. Commercial and Industrial Areas

A. Fire hydrants shall be located no more than a five-hundred-foot (500') truck hose lay distance to all points of any structure or combustible storage area on the lot.

B. Fire hydrants located on the opposite side of a street, designated as four lanes or larger on the current Master Thoroughfare Plan, shall not be considered acceptable for meeting hydrant coverage requirements.

C. Fire hydrants shall be positioned to allow truck hose lays to follow normal traffic access to the site.

D. Fire hydrants shall be spaced at no more than three-hundred-foot (300') intervals.

2. Residential Areas

A. Fire hydrants shall be placed on block corners or near the center of the block to place every structure within a five-hundred-foot (500') truck hose lay distance from fire hydrant coverage.

B. Fire hydrants located on the opposite side of a street, designated as four lanes or larger on the current City Thoroughfare Plan, shall not be considered acceptable for meeting hydrant coverage requirements.

C. Fire hydrants shall be positioned to allow truck hose lays to follow normal traffic access to the site.

D. Fire hydrants shall be spaced at no more than five-hundred-foot (500') intervals.

Appendix C104 Hydrant Spacing, shall be deleted entirely.

[APPENDIX D - Fire Apparatus Access Roads]

Section D102.1; change to read as follows:

D102.1 Access and loading. Facilities, buildings, or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete, or other approved driving surface capable of supporting the imposed load of fire apparatus weighing up to ~~75,000 (34 050 kg)~~ 85,000 pounds (38 556 kg). Buildings 5,000 square feet or larger shall have fire apparatus roads on all four sides of the building to allow for adequate firefighting capabilities.

Section 103 Minimum Specifications; Change D103.2 to read as follows:

D103.2 Grade. Fire apparatus access roads shall not exceed ~~10 percent~~ 6 percent in grade.

TABLE D103.4
REQUIREMENTS FOR DEAD-END FIRE APPARATUS ACCESS ROADS

LENGTH (feet)	WIDTH (feet)	TURNAROUNDS REQUIRED
0–150	~~20~~ 24	None required
151–500	~~20~~ 24	120-foot Hammerhead, 60-foot "Y" or 96-foot diameter cul-de-sac in accordance with Figure D103.1
501–750	26	120-foot Hammerhead, 60-foot "Y" or 96-foot diameter cul-de-sac in accordance with Figure D103.1
Over 750	Special approval required	

For SI: 1 foot = 304.8 mm.

Appendix D103.5 Fire apparatus access road gates, change Item 1 to read as follows:

1. Where a single gate is provided, the gate width shall be not less than ~~20 feet (6096 mm)~~ 24 feet (7,315.2 mm). Where a fire apparatus access road consists of a divided roadway, the gate width shall be not less than 12 feet (3,658 mm)

Section D103.6; change to read as follows:

D103.6 Marking. ~~Signs.~~ ~~Where required by the fire code official, fire apparatus roads shall be marked with permanent "NO PARKING-FIRE LANE" signs complying with Figure D103.6. Signs shall have a minimum dimension of 12 inches (305 mm) wide by 18 inches (457 mm) high and have red letters on a white reflective background. Signs shall be posted on one or both sides of the fire apparatus road as required by Section D103.6.1 or D103.6.2.~~ Striping, signs, or other markings, when approved by the fire code official, shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. Striping, signs, and other markings shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.

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

(2) Signs – Signs shall read "NO PARKING FIRE LANE" or "FIRE LANE NO PARKING" and shall be 12" wide and 18" high (See Figure D103.6). Signs shall have red letters on a white reflective background, 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.

FIGURE D103.6 FIRE LANE SIGNS

Section D103.6.1; {Delete}

Section D103.6.2; {Delete}

Section D104.3; change to read as follows:

D104.3 Remoteness. Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the lot or area to be served, measured in a straight line between accesses or as approved by the fire code official.

Section D105.3; change to read as follows:

D105.3 Proximity to building. Unless otherwise approved by the fire code official, one or more of the required access routes meeting this condition shall be located not less than 15 feet (4572 mm) and not greater than 30 feet (9144 mm) from the building and shall be positioned parallel to one entire side of the building. The side of the building on which the aerial fire apparatus access road is positioned shall be approved by the fire code official.

Section D106.3; change to read as follows:

D106.3 Remoteness. Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses or as approved by the fire code official.

Section D107.2; change to read as follows:

D107.2 Remoteness. Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses or as approved by the fire code official.

[APPENDIX L - Requirements For Fire Fighter Air Replenishment Systems]

Section L101.1; change to read as follows:

Section L101.1 Scope. Firefighter air replenishment systems (FARS) shall be provided in accordance with this appendix ~~The adopting ordinance shall specify building characteristics or special hazards that establish thresholds triggering a requirement for the installation of a FARS. The requirement shall be based on the fire department's capability of replenishing fire fighter breathing air during sustained~~

~~emergency operations. Considerations include~~ in new buildings when any of the following conditions occur:

1. ~~Building characteristics, such as number of stories above or below grade plane, floor area, type of construction and fire resistance of primary structural fame to allow sustained fire-fighting operations based on a rating of not less than 2 hours.~~ Any new building 5 or more stories in height.
2. ~~Special hazards, other than buildings, that require unique accommodations to allow the fire department to replenish fire fighter breathing air.~~ Any new building with 2 or more floors below grade.
3. ~~Fire department staffing level.~~ {Deleted}
4. ~~Availability of a fire department breathing air replenishment vehicle.~~

Each stairwell shall have a supply riser. SCBA fill panels shall be located on odd-numbered floors commencing at the first level in the primary stairwell and on even-numbered floors commencing at level 2 in the remaining stairwells.

Section L104.13.1; delete this section in its entirety.

Section L104.14; add paragraph to read as follows:

The external mobile air connection shall be located with approved separation from the Fire Department Connection (FDC) to allow functionality of both devices by first responders; shall be visible from and within 50 ft. of a fire apparatus access road along an unobstructed path; and shall be located in an approved signed secured cabinet.

[APPENDIX P - PERMIT FEES]

Section P100; General.

P101.1 DCESD1 shall collect the approved fees for inspections, annual permits, and other related permits as required by this Ordinance.

P101.2 Fire code construction permit fees shall be based on the contracted value of the work being permitted. Fees are as stated in the approved fee schedule and adopted by the Town. When a permit is required, the permit fee shall be doubled when work or construction has occurred without obtaining the appropriate permits.

P101.3 Fire Code operational permit fees shall be annual and due on the anniversary date of the permit issue unless otherwise indicated on the permit.

P101.4 Payment of annual permit fees shall be the responsibility of the property owner, business owner/manager, contractor, or other responsible individual as applicable.

P101.5 The Fire Marshal may request copies of bid documents or other items to verify the estimated cost of construction when calculating permit fees.

P101.6 A permit application shall be submitted to the Development Services Department and must have detailed construction plans, one (1) digital PDF copy, and a copy of the applicant's State license as applicable attached to the application.

P101.7 Contractor documentation. Anyone desiring to do work for which a construction permit is required shall be required to provide certain documentation to the Development Services Department. Such documentation shall include, but not be limited to, a copy of all applicable State licenses and contact information.

P101.8 Work shall not begin on any construction requiring a fire code permit before the permit is obtained unless approved by the Fire Marshal.

P101.9 Inspection requests. It shall be the duty of the permit holder or their duly authorized agent to notify the fire code official when work is ready for inspection. It shall be the duty of the permit holder to provide access to and means for inspections of such work that are required by this Code.

P101.10 Approval required. Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the fire code official. The fire code official, upon notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed or notify the permit holder or his or her agent wherein the same fails to comply with this Code. Any portions that do not comply shall be corrected, and such portions shall not be covered or concealed until authorized by the fire code official.

P102 Required construction permits. For any and all new installations and modifications to existing fire and life safety systems, including but not limited to **Sections P102.1 through P102.16** of this document and **Section 105 Permits of the 2021 Edition of the International Fire Code.** A construction permit issued by the Fire Marshal shall be required for work as set forth in the above-referenced Sections.

P102.1 Automatic fire-extinguishing systems. The permit fee for the installation of or modification to any residential or commercial automatic fire-extinguishing system required by Section 105.6.1 and Section 903 as amended and adopted, shall be determined by the cost of construction, and the fee shall be calculated based on the fee schedule as required by the most recent ordinances of DCESD1.

P102.2 Energy Storage Systems. The permit fee for the installation of stationary energy storage systems required by Chapter 12 and Section 105.6.5 shall be determined by the cost of construction, and the fee shall be calculated based on the fee schedule as required by the most recent ordinances of DCESD1.

P102.3 Compressed gases. The permit fee to install, repair damage to, abandon, remove, place temporarily out of service, or close or substantially modify a compressed gas system required by Section 105.6.2 shall be determined by the cost of construction, and the fee shall be calculated based on the fee schedule as required by the most recent ordinances of DCESD1.

P102.4 Cryogenic fluids. The permit fee for the installation of or alteration to outdoor stationary cryogenic fluid storage systems required by Chapter 55 and Section 105.5.11 shall be determined by the cost of construction, and the fee shall be calculated based on the fee schedule as required by the most recent ordinances of DCESD1.

P102.5 Fire alarm and detection systems and related equipment. The permit fee for the installation of or modification to fire alarm and detection systems and related equipment required by Section 105.6.6 shall be determined by the cost of construction, and the fee shall be calculated based on the fee schedule as required by the most recent ordinances of DCESD1.

P102.6 Fire pumps and related equipment. The permit fee for the installation of or modification to fire pumps and related fuel tanks, jockey pumps, controllers, and generators required by Section 105.6.7 shall be determined by the cost of construction, and the fee shall be calculated based on the fee schedule as required by the most recent ordinances of DCESD1.

P102.7 Flammable and combustible liquids. The permit fee for the installation of or repair or modification to a pipeline, tank, or other such items required by Section 105.6.8 shall be determined by the cost of construction, and the fee shall be calculated based on the fee schedule as required by the most recent ordinances of DCESD1.

P102.8 Hazardous materials. The permit fee for the installation, repair, abandonment, removal, closure, or modification to a storage facility or other area regulated by Chapter 50 as required by Section 105.6.12 shall be determined by the cost of construction, and the fee shall be calculated based on the fee schedule as required by the most recent ordinances of DCESD1.

P102.9 Industrial ovens. The permit fee for the installation of industrial ovens covered by Chapter 30 as required by Section 105.6.14 shall be determined by the cost of construction, and the fee shall be calculated based on the fee schedule as required by the most recent ordinances of DCESD1.

P102.10 LP-gas. The permit fee for the installation of or modification to an LP-gas system required by Section 105.6.15 shall be determined by the cost of construction, and the fee shall be calculated based on the fee schedule as required by the most recent ordinances of DCESD1.

P102.11 Spraying or dipping. The permit fee for the installation of or modification to a spray room, dip tank, or booth required by Section 105.6.22 shall be determined by the cost of construction, and the fee shall be calculated based on the fee schedule as required by the most recent ordinances of DCESD1.

P102.12 Standpipe systems. The permit fee for the installation of, modification to, or removal from service of a standpipe system required by Section 105.6.23 shall be determined by the cost of construction, and the fee shall be calculated based on the fee schedule as required by the most recent ordinances of DCESD1.

P102.13 Smoke control or exhaust systems. The permit fee for the installation of or modification to a smoke control or exhaust system required by Section 105.6.19 shall be determined by the cost of construction, and the fee shall be calculated based on the fee schedule as required by the most recent ordinances of DCESD1.

P102.14 Electronic access control systems. The permit fee for the installation of or modification to an electronic access control system, as described in Section 105.6.25, shall be determined by the cost of construction, and the fee shall be calculated based on the fee schedule as required by the most recent ordinances of DCESD1.

P102.15 Gates across fire lanes. A permit is required for the installation of controlled access gates across required fire lanes as described in Section 105.6.11. The permit fee for the installation of or modification to controlled access gates across required fire lanes shall be determined by the cost of construction, and the fee shall be calculated based on the fee schedule as required by the most recent ordinances of DCESD1.

P102.16 Temporary Membrane Structures and Tents. The permit fee for the installation of a tent or membrane structure, as described in Section 105.6.24, shall be determined by the cost of construction, and the fee shall be calculated based on the fee schedule as required by the most recent ordinances of DCESD1.

P102.17 Fireworks Displays. A permit is required for the display of Fireworks as described in Section 5601.1.3 and Section 5608. The permit fee for fireworks displays shall be calculated based on the fee schedule as required by the most recent ordinances of DCESD1.

Gas Wells: The Fire District is authorized to conduct Annual Gas well inspections to ensure all equipment is in safe operating order and follows town and fire code regulations. The Fire District is also authorized to charge for the annual gas well inspections following their fee schedule."

[APPENDIX Q - Address Markings] ***Fire Department Address Guide for All Properties***

Single Family Homes

Minimum 4" high, 5/8" contrasting numbers.

Multi Family Communities (Apartments, condos, townhouses)

Street Address:

Minimum 12" high numbers with a 2" stroke with contrasting background.

- ***12" high numbers with a 2" stroke are only acceptable when placed within approximately 75' of the road in which the property is addressed.***

Building Numbers:

Minimum 18" high numbers with a 3" stroke with contrasting background.

- Buildings under 100' long: a minimum of one number per building.
- Buildings over 100' in length require a minimum of two numbers per building.

Apartment Spread Numbers/ Corridor Spread Numbers:

- Apartment spread numbers are to be a minimum 7" high numbers with a 1" stroke with contrasting background.
- Corridor spread numbers are to be a minimum 4" high number with a 5/8" brush stroke with contrasting background.
- Number example format:
  301-310 3rd Floor
  201-210 2nd Floor
  101-110 1st Floor

Apartment Numbers:

Minimum 4" high numbers with a 5/8" stroke with contrasting background and visible from access road.

Large Office and Warehouse Buildings

Minimum 24" high numbers with a 4" stroke with contrasting background.
Address must be visible from all access directions.

- Buildings over 500' long will have two address locations if more than one access point is visible.
- Suite numbers are required for multi tenant complexes and shall be located over the ***front door and on the rear door*** with a 6" high x 1" brush stroke.

Shopping Centers, High Rise Buildings and Other Applications

Minimum 12" high numbers with a 2" stroke with contrasting background. Be visible from all access directions. Suite numbers are required over the door with a 6" high x 1" brush stroke.

- Buildings beyond 100' from the street and 10,000 square feet or more would need to install 18" x 3" address numbers.

Marquee and Monument

Addresses installed on a marquee or monument located next to the street will require numbers 12" high x 2" brush stroke to be located a minimum of 3 feet above grade. Numbers shall contrast with the background.

End