

ORDINANCE 2022-11-10-0875

**AMENDING CHAPTER 10 OF THE CITY CODE OF SAN ANTONIO, TEXAS, ENTITLED “BUILDING-RELATED CODES OF THE CITY OF SAN ANTONIO” AND CHAPTER 11 OF THE CITY CODE OF SAN ANTONIO, TEXAS, ENTITLED “FIRE PREVENTION” BY REVISING ADMINISTRATIVE PROCEDURES, ADOPTING THE 2021 EDITIONS OF THE INTERNATIONAL CODE COUNCIL, INC., BUILDING-RELATED CODES, THE 2020 NATIONAL ELECTRICAL CODE, THE 2021 EDITION OF THE INTERNATIONAL FIRE CODE AND APPENDICES, AND THEIR RESPECTIVE LOCAL AMENDMENTS, APPLYING ADMINISTRATIVE CLARIFICATION, AND PROVIDING FOR PENALTIES, PUBLICATION AND AN EFFECTIVE DATE.**

\* \* \* \* \*

**WHEREAS**, the Building-Related and Fire Codes Appeals and Advisory Board is charged with reviewing and making recommendations on nationally recognized building-related codes and fire code following publication upon request by the Building Official or Fire Chief; and

**WHEREAS**, although delayed by the pandemic, the Development Services Department and Fire Department, as part of the triennial review process for technical construction code adoption and amendment, took proposed technical construction code and fire code adoptions and modifications through the Building-Related and Fire Codes Appeals and Advisory Board’s various subcommittees for evaluation, input and any recommended revisions; and

**WHEREAS**, the results of these reviews were forwarded to the full Building-Related and Fire Codes Appeals and Advisory Board where public meetings were conducted regarding the 2021 editions of the International Building Code, International Residential Code for One and Two-Family Dwellings, International Mechanical Code, International Plumbing Code, International Existing Building Code, International Fuel Gas Code, International Fire Code, International Energy Conservation Code, International Swimming Pool and Spa Code and the 2020 edition of the National Electrical Code, and their respective local amendments; and

**WHEREAS**, the Building-Related and Fire Codes Appeals and Advisory Board recommended approval and adoption of the aforementioned codes and local amendments; and

**WHEREAS**, all prerequisites required by state statute and the City Charter for adoption of these code and their amendments have been satisfied; **NOW THEREFORE**,

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SAN ANTONIO:**

**SECTION 1.** Chapter 10, “Building-Related Codes of the City of San Antonio” is hereby amended by repealing the existing Chapter 10 in its entirety and replacing it with a new Chapter 10, “Building-Related Codes of the City of San Antonio” as detailed in **Attachment A**, which is



incorporated herein for all purposes below, to reflect adoption of the 2021 editions of the International Building Code, International Residential Code for One and Two-Family Dwellings, International Mechanical Code, International Plumbing Code, International Existing Building Code, International Fuel Gas Code, International Fire Code, International Energy Conservation Code, International Swimming Pool and Spa Code and the 2020 edition of the National Electrical Code and their respective local amendments.

**SECTION 2.** Three (3) copies of these codes and local amendments hereby adopted are filed in the office of the City Clerk, pursuant to Section 17 of the Charter for permanent record and inspection. For reference purposes, certain changes to Chapters 10 and 11 are shown with either underlined (added) language or strikethrough (~~deleted~~) language.

**SECTION 3.** Chapter 11, Article III, Section 11-16, (c)(1) and (j)(2), “Fees for certain permits and services,” is amended as stated in **Attachment B**, which is incorporated herein for all purposes.

**SECTION 4.** Chapter 11, Article III, Section 11-32 entitled “Adoption of the International Fire Code” is updated and amended as follows:

***Sec. 11-32. - Adoption of the International Fire Code.***

The 2021 edition of the International Fire Code, including Appendices B, C, D, F, I, and M developed by the International Code Council is hereby adopted by the City of San Antonio, Texas, as the fire code for the City from the effective date hereof and shall govern all activities specified therein for the purpose of prescribing regulations governing conditions hazardous to life and property from fire and explosion. The 2021 edition of the International Fire Code as adopted is incorporated by reference in this article.

**SECTION 5.** Chapter 11, Article III, Section 11-40 entitled “Amendments made to the 2018 International Fire Code” is hereby repealed in its entirety and replaced with a new Section 11-40 entitled “Amendments made to the 2021 International Fire Code” as detailed in **Attachment C**, which is incorporated herein for all purposes.

**SECTION 6.** All previous provisions of the 2018 International Building Code, International Residential Code for One and Two-Family Dwellings, International Mechanical Code, International Plumbing Code, International Existing Building Code, International Fuel Gas Code, International Fire Code, International Energy Conservation Code, International Fire Code and the 2017 edition of the National Electrical Code, and their respective local amendments as adopted by the City of San Antonio, Texas, remain in full force and effect during the period for which they were enacted.

**SECTION 7.** Violations occurring after the effective date of this ordinance shall be punished as provided in the revised City Code of San Antonio. Violations prior to the effective date shall be punished under the former applicable sections which shall remain in effect for that purpose.



**SECTION 8.** Should any Article, Section, Part, Paragraph, Sentence, Phrase, Clause, or Word of this ordinance, or any appendix, for any reason be held illegal, inoperative, or invalid, or if any exception to or limitation upon any general provision in this ordinance be held to be unconstitutional or invalid or ineffective, the remainder shall, nevertheless, stand effective and valid as if it had been enacted and ordained without the portion held to be unconstitutional or invalid or ineffective.

**SECTION 9.** There is no financial impact as a result of the passage of this Ordinance.

**SECTION 10.** No other provision of the City Code is amended by this Ordinance. All other provisions remain in effect.

**SECTION 11.** The City Clerk for the City of San Antonio is directed to publish notice of this Ordinance in a newspaper published in the City of San Antonio, Texas, as required by Article 2, Section 17 of the City Charter of San Antonio, Texas.

**SECTION 12.** The publishers of the City Code of San Antonio are authorized to amend said Code to reflect the changes adopted in this Ordinance, to correct typographical errors and to index, format and number paragraphs to conform to the existing code.

**SECTION 13.** This Ordinance is effective the 1<sup>st</sup> day of February, 2023.

**PASSED AND APPROVED this 10<sup>th</sup> day of November, 2022.**



M A Y O R

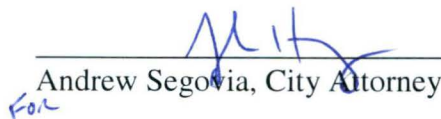
Ron Nirenberg

**ATTEST:**

**APPROVED AS TO FORM:**



Debbie Racca-Sittre, City Clerk



Andrew Segovia, City Attorney





## City of San Antonio

### City Council Meeting November 10, 2022

12.

2022-11-10-0875

Ordinance amending Chapter 10 of the City Code of San Antonio, Texas, entitled "Building-Related Codes of the City of San Antonio" and Chapter 11 of the City Code of San Antonio, Texas, entitled "Fire Prevention" by revising administrative procedures, adopting the 2021 editions of the International Code Council (ICC), Inc., Building-Related Codes, the 2020 National Electrical Code, the 2021 edition of the ICC International Fire Code and appendices, and their respective local amendments, applying administrative clarification, and providing for penalties, publication and an effective date. [Roderick Sanchez, Assistant City Manager; Michael Shannon, Director, Development Services]

Councilmember Rocha Garcia moved to approve as amended by Planning and Community Development Committee with removal of R49 ceiling insulation requirements. Councilmember Castillo seconded the motion. The motion carried by the following vote:

**Aye:** McKeeRodriguez, Viagran, Rocha Garcia, Castillo, Cabello Havrda,  
Nirenberg, Bravo  
**No:** Pelaez, Courage  
**Absent:** Sandoval, Perry

Councilmember Pelaez moved to separate Energy Code of ICC Chapter 10, Section 300 from the main motion. Councilmember Courage seconded the motion. The motion failed by the following vote:

**Aye:** Nirenberg, Pelaez, Courage  
**No:** Bravo, McKeeRodriguez, Viagran, Rocha Garcia, Castillo, Cabello Havrda  
**Absent:** Sandoval, Perry

Councilmember Cabello Havrda moved to approve with exception of insulation requirement recommended by staff for R49 ceiling insulation. Councilmember Courage seconded the motion. The motion carried by the following vote:

**Aye:** Nirenberg, McKeeRodriguez, Viagran, Rocha Garcia, Castillo, Cabello  
Havrda, Courage  
**No:** Bravo, Pelaez  
**Absent:** Sandoval, Perry



## **ATTACHMENT B**



Sec. 11-16. - Fees for certain permits and services.

(c) (1) A re-inspection fee of one hundred fifty dollars (\$150.00) shall be assessed for each inspection or re-inspection, to include Failed and Phased Pass inspections, when work for which an inspection or re-inspection is requested is not approved. A re-inspection fee may also be assessed when the permit is not properly posted on the work site, when the approved plans are not readily available to the inspector, when access is not provided on the date for which inspection is requested or for noncompliance with approved plans, requiring re-Inspection and approval of the fire official. All re-inspection fees shall be paid before final release of public utilities and issuance of the certificate of occupancy.

(2) Minor re-inspection fee.... 35.00

(3) General inspection fee.... 75.00

(j)(2) Rescheduling fee. If a test or a retest of any fire protection system is canceled within ~~four (4)~~ twenty-four (24) hours of the scheduled test, a rescheduling fee of one hundred fifty dollars (\$150.00) shall be paid prior to rescheduling of the required test.



## **ATTACHMENT C**

**Sec. 11-40. Amendments made to the 2021 International Fire Code.**

*SECTION [A]101.3 PURPOSE is amended by adding SECTION [ A ] 101.3.1 FIRE CHIEF AUTHORIZATION to read as follows:*

**[A] 101.3.1 Fire Chief Authorization.** The Fire Chief is authorized to make and enforce such rules and regulations for the prevention and control of fires and fire hazards as may be necessary from time to time to carry out the intent of this Code. Three certified copies of such rules and regulations shall be filed with the City Clerk of the City of San Antonio and shall be in effect immediately thereafter and additional copies shall be kept in the office of the Fire Department for distribution to the public.

*SECTION [A] 104 DUTIES AND POWERS OF THE FIRE CODE OFFICIAL is amended by adding SECTION 104.1.1 AUTHORITY OF THE FIRE CHIEF AND THE FIRE DEPARTMENT and SECTION 104.1.2 ADDITIONAL DUTIES AND POLICE POWERS OF FIRE DEPARTMENT MEMBERS to read as follows:*

**[A] 104.1.1 Authority of the fire chief and the fire department.** The Fire Chief is duly authorized to act by any means he deems necessary to protect life and property from fire hazards. The Fire Chief may delegate his power to any other member of the Fire Department.

**[A] 104.1.2 Additional duties and police powers of fire department members.** In addition to the duties required or prescribed for members of the Fire Department in connection with the regular functions of such department, when so required by order of the City Manager in case of riots, floods, or other public emergencies or catastrophes or public danger of any sort, and all fires by order of the Fire Chief, Deputy Chief, Assistant Chief, District Chief, or any Captain or Lieutenant of the Fire Department, each and all members of the Fire Department shall be and become vested with full Police powers and shall perform all duties required for the protection of persons or property or the preservation of public safety, peace and order.

*SECTION [A] 104.3 RIGHT OF ENTRY is amended to read as follows:*

**[A] 104.3 Right of entry.**

Where it is necessary to make an inspection to enforce the provisions of this code, or where the *fire code official* has reasonable cause to believe that there exists in a building or upon any premises any conditions or violations of this code that make the building or premises unsafe, dangerous or hazardous, the *fire code official* shall have the authority to enter the building or premises at all reasonable times to inspect or to perform the duties imposed upon the *fire code official* by this code. If such building or premises is occupied, the *fire code official* shall present credentials to the occupant and request entry. If such building or premises is unoccupied, the *fire code official* shall first make a reasonable effort to locate the owner, the owner's authorized agent or other person having charge or control of the building or premises and request entry. If entry is refused, the *fire code official* has recourse to every remedy provided by law to secure entry.

No owner or occupant or any other person having charge, care or control of any building or premises shall fail or neglect, after proper demand is made as herein provided, to properly permit entry therein by the Chief or his authorized representative for the purpose of inspection or examination under such exigent circumstances affecting the safety of persons and/or property, or to take such prudent action to extinguish a fire or abate a fire hazard.



*SECTION [A]104.3 RIGHT OF ENTRY is amended by adding SECTION [A]104.3.2 PHOTOGRAPHIC DOCUMENTATION to read as follows:*

**[A] 104.3.2 Photographic documentation.** Members of the Fire Department making such examinations or inspections shall have the right, with proper credentials, and be authorized to take a reasonable number of photographs or videotapes for evidence and for records for use by the Fire Department to study hazards and scientific control for fire safety.

*SECTION [A] 104.4 IDENTIFICATION is amended by adding SECTION [A] 104.4.1 IMPERSONATION to read as follows:*

**[A] 104.4.1 Impersonation.** A person shall not impersonate the fire code official or his designee through the use of a uniform, identification card, badge, or any other means. Any such impersonation shall be deemed a violation of this Code.

*SECTION [A]105.2 APPLICATION is amended by adding SECTION [A] 105.2.5 INVESTIGATION FEE/WORKING WITHOUT A PERMIT to read as follows:*

**[A] 105.2.5 Investigation fee/working without a permit.** Work requiring a permit shall not commence until said permit is posted in a conspicuous place on the job site and approved plans are available at this location. Where work is commenced prior to obtaining said permit, the fees provided for in Section 11-16 of the City Code may be doubled, but the payment of such double fee shall not relieve any person from fully complying with the requirements of Chapter 11 as amended by this ordinance in the execution of the work nor of any other penalties prescribed herein.

*SECTION 105.5 REQUIRED OPERATIONAL PERMITS is amended to read as follows:*

**105.5 Required operational permits.** The fire code official is authorized to issue operational permits for the operations set forth in Sections 105.5.1 through 105.5.52 105.5.56. Required permits and associated fees are listed in Chapter 11, Section 11-16, in Chapter 16 entitled Licenses and Business Regulations, Article I, *In General*, Sec. 16-3 for hazardous materials, and in other associated chapters of this code. Materials stored, used, dispensed, or handled in amounts exceeding the amounts listed in TABLE 105.5.9 PERMIT AMOUNTS FOR COMPRESSED GASES, TABLE 105.5.11 PERMIT AMOUNTS FOR CRYOGENIC FLUIDS, and TABLE 105.5.22 PERMIT AMOUNTS FOR HAZARDOUS MATERIALS are subject to the provisions of this section.

*SECTIONS 105.5.1 ADDITIVE MANUFACTURING THROUGH 105.5.8 COMBUSTIBLE FIBERS, 105.5.10 COVERED AND OPEN MALL BUILDINGS, 105.5.12 CUTTING AND WELDING THROUGH 105.5.15 EXHIBITS AND TRADE SHOWS, 105.5.17 FIRE HYDRANTS AND VALVES THROUGH 105.5.21 FUMIGATION AND INSECTICIDAL FOGGING, 105.5.24 HIGH-PILED STORAGE THROUGH 105.5.33 MOTOR FUEL DISPENSING FACILITIES, 105.5.37 ORGANIC COATINGS THROUGH 105.5.40 PLANT EXTRACTION SYSTEMS, 105.5.43 PYROXYLIN PLASTICS THROUGH 105.5.46 ROOFTOP HELIPORTS, AND 105.5.48 STORAGE OF SCRAP TIRES AND TIRE BYPRODUCTS THROUGH 105.5.52 WOOD PRODUCTS are repealed.*

*TABLE 105.5.9 PERMIT AMOUNTS FOR COMPRESSED GASES is amended by deleting "Type of Gas" Carbon dioxide used in insulated liquid carbon dioxide beverage dispensing applications.*

*SECTIONS 105.5.18 FLAMMABLE AND COMBUSTIBLE LIQUIDS and 105.5.22 HAZARDOUS MATERIALS are amended to read as follows:*



**105.5.18 Flammable and combustible liquids.** An operational permit is required:

1. To use or operate a pipeline for the transportation within facilities of flammable or combustible liquids. This requirement shall not apply to the off-site transportation in pipelines regulated by the Department of Transportation (DOT) nor does it apply to piping systems.
2. To store, handle or use Class I liquids in excess of 5 gallons (19 L) in a building or in excess of 10 gallons (37.9 L) outside of a building, except that a permit is not required for the following:
  - 2.1. The storage or use of Class I liquids in the fuel tank of a motor vehicle, aircraft, motorboat, mobile power plant or mobile heating plant, unless such storage, in the opinion of the fire code official, would cause an unsafe condition.
  - 2.2. The storage or use of paints, oils, varnishes or similar flammable mixtures where such liquids are stored for maintenance, painting or similar purposes for a period of not more than 30 days.
3. To store, handle or use Class II or Class IIIA liquids in excess of 25 gallons (95 L) in a building or in excess of 60 gallons (227 L) outside a building, except for fuel oil used in connection with oil-burning equipment.
4. To store, handle or use Class IIIB liquids in tanks or portable tanks for fueling motor vehicles at motor fuel-dispensing facilities or where connected to fuel-burning equipment. Exception: Fuel oil and used motor oil used for space heating or water heating.
5. To remove Class I or II liquids from an underground storage tank used for fueling motor vehicles by any means other than the approved, stationary on-site pumps normally used for dispensing purposes.
6. To operate tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing stations, refineries, distilleries and similar facilities where flammable and combustible liquids are produced, processed, transported, stored, dispensed or used.
7. To place temporarily out of service (for more than 90 days) an underground, protected above-ground or above-ground flammable or combustible liquid tank.
8. To change the type of contents stored in a flammable or combustible liquid tank to a material that poses a greater hazard than that for which the tank was designed and constructed.
9. To manufacture, process, blend or refine flammable or combustible liquids.
- ~~10. To engage in the dispensing of liquid fuels into the fuel tanks of motor vehicles at commercial, industrial, governmental or manufacturing establishments in accordance with Section 5706.5.4 or to engage in on-demand mobile fueling operations in accordance with Section 5707.~~
- ~~11. To utilize a site for the dispensing of liquid fuels from tank vehicles into the fuel tanks of motor vehicles, marine craft and other special equipment at commercial, industrial, governmental or manufacturing establishments in accordance with Section 5706.5.4 or, where required by the fire code official, to utilize a site for on-demand mobile fueling operations in accordance with Section 5707.~~

**105.5.22 Hazardous materials.** An operational permit is required to store, transport on site, dispense, use, or handle hazardous materials in excess of the amounts listed in Table 105.5.22. Permit fees are listed in Chapter 16 entitled Licenses and Business Regulations, Article I, *In General*, Sec. 16-3 for hazardous materials.



*SECTION 105.5.32 MOBILE FOOD PREPARATION VEHICLES is hereby repealed and replaced with SECTION 105.5.32 MOBILE FOOD ESTABLISHMENTS to read as follows:*

**105.5.32 Mobile food establishments.** An operational permit is required for the operation and maintenance of a mobile food establishment. Small, lightweight vendor push carts, as determined by the fire code official, are not covered under this section. For permit to operate a Mobile Food Establishment, see Section 319, Permit fee information in Chapter 11, Section 11-16 of the City Code.

*SECTION 105.5.47 SPRAYING OR DIPPING is amended to read as follows:*

**105.5.47 Spraying or dipping.** An operational permit is required to conduct a spraying or dipping operation utilizing flammable or combustible liquids, or the application of combustible powders regulated by Chapter 24. All spray booths (to include permanent, temporary, and mobile spraying and dipping operations) require an operational permit and approval by the fire code official.

*SECTION 105.5 REQUIRED OPERATIONAL PERMITS is amended adding SECTIONS 105.5.53 IN-BUILDING TWO-WAY RADIO ENHANCEMENT SYSTEM, 105.5.54 FOOD BOOTHS, 105.5.55 PORTABLE OUTDOOR GAS-FIRED HEATING APPLIANCES and 105.5.56 PARADE FLOATS to read as follows:*

**105.5.53. In-building two-way radio enhancement system.** An operational permit is required for the operation of any In-Building Two-Way Radio Enhancement System.

**105.5.54 Food booths.** An operational permit is required for the operation of a food booth. For permit to operate a food booth, see Section 322. Permit fee information can be found in Chapter 11, Section 11-16 of the City Code.

**105.5.55 Portable outdoor gas-fired heating appliances.** An operational permit is required for the operation and maintenance of a portable outdoor gas-fired heating appliance. For permit to use portable outdoor gas-fired heating appliances, see Section 323.

**105.5.56 Parade floats.** An operational permit is required to operate a Parade Float. For permit to operate a Parade Float see Section 324. Permit fee information can be found in Chapter 11, Section 11-16 of the City Code.

*SECTION [A]105.6 REQUIRED CONSTRUCTION PERMITS is amended to read as follows:*

**Section [A] 105.6 Required construction permits.** The fire code official is authorized to issue construction permits for work as set forth in Section 105.6.1 through 105.6.24. Required permits and associated fees can be found in Chapter 11, Section 11-16 of the City Code.

*SECTIONS 105.6.5 ENERGY STORAGE SYSTEMS, [A]105.6.9 FUEL CELL POWER SYSTEMS THROUGH [A]105.6.11 GATES AND BARRICADES ACROSS FIRE APPARATUS ACCESS ROADS, [A]105.6.13 HIGH-PILED COMBUSTIBLE STORAGE THROUGH [A]105.6.17 PLANT CERTIFICATION SYSTEMS and [A]105.6.20 SOLAR PHOTOVOLTAIC POWER SYSTEM are repealed.*

*SECTION [A] 105.6.7 FIRE PUMPS AND RELATED EQUIPMENT is amended to read as follows:*



**[A] 105.6.7 Fire pumps and related equipment.** A construction permit is required for installation of or modification to fire pumps and related fuel tanks, jockey pumps, controller, and generators. Maintenance performed in accordance with this code is not considered to be a modification and does not require a construction permit. A fuel storage tank permit is required for the installation of a diesel pump fuel tank 60 gallons or larger.

*SECTION 105 PERMITS is amended by adding SECTION [ A ] 105.6.12.1 CONSTRUCTION DOCUMENTS to read as follows:*

**[A] 105.6.12.1 Construction documents.** The construction documents for the following tanks shall be prepared by a professional engineer licensed by the State of Texas:

1. Above ground storage tanks (AST) of 1320 gallons or larger used to store flammable liquids. (Class 1A,1B, 1C)
2. All underground tanks used for the storage and dispensing of flammable or combustible liquids.

*SECTION [A]106 CONSTRUCTION DOCUMENTS is amended by adding SECTION [A]106.2.1.1 OCCUPANCY CLASSIFICATION LETTER to read as follows:*

**106.2.1.1 Occupancy classification letter.** Two copies of a completed "Occupancy Classification Letter" (a.k.a. "Commodities Letter") or other approved Fire Protection report shall be submitted to the City for buildings or portions thereof that are to be used for any of the following purposes:

1. Warehousing or storage
2. Retail including rack display of products
3. Hazardous material storage and/or use
4. Manufacturing

The Occupancy Classification Letter is required to be submitted:

1. with the building permit submittal documents when seeking a building permit,
2. to the SAFD Fire Inspector during a Certificate of Occupancy inspection, or
3. at any other time when required by the fire code official.

The Occupancy Classification Letter is to be prepared by the owner and/or tenant of the building/space in question or a registered design professional. It is to be signed, dated and on company letterhead. If the Occupancy Classification Letter is prepared by a registered design professional representing the owner and/or tenant of the building/space in question, the letter is to be countersigned by the owner and/or tenant. The Occupancy Classification Letter is to be kept on site at all times. Prior to a change in 1) the type or amount of hazardous material(s) used or stored, 2) the type or amount of storage or storage height or method, or 3) the manufacturing process, a revised Occupancy Classification Letter is to be submitted to the Fire Chief or his designee for review.

*SECTION 111 MEANS OF APPEALS is repealed and replaced with SECTION 111 BUILDING-RELATED AND FIRE CODES APPEALS AND ADVISORY BOARD to read as follows:*

**SECTION 111**  
**BUILDING-RELATED AND FIRE CODES APPEALS AND ADVISORY BOARD**



All Chapter 11 appeals and advisory opinions shall be directed to and addressed by the Building-related and Fire Code Appeals and Advisory Board, as codified in Chapter 10, Section 10-14 of the City Code of San Antonio, Texas.

*SECTION [A] 112 VIOLATIONS is amended by adding SECTION [A] 112.1.1 WORK STARTED WITHOUT A PERMIT to read as follows:*

**[A] 112.1.1 Work started without a permit.** No work shall be started on any Fire Protection System at a new construction site or an existing structure, other than maintenance work, without a permit being issued, without a FAST-TRACK permit being issued, or without approval from the Fire Marshal. Both the individual contractor and the site general contractor may be held liable for such actions.

*SECTION [A] 112.4 VIOLATION PENALTIES is amended to read as follows:*

**[A] 112.4 Violation penalties.** Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate under provisions of this code shall be guilty of a ~~[specify offense]~~ Class C Misdemeanor as defined by the Municipal Code of the City of San Antonio, punishable by a fine of not more than [AMOUNT] dollars or by imprisonment not exceeding [NUMBER OF DAYS], or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

*SECTION [A] 114 UNSAFE STRUCTURES OF EQUIPMENT is amended by adding [A] 114.2.1 REMOVAL OF OCCUPANTS to read as follows:*

**[A] 114.2.1 Removal of occupants.** A member of the Fire Department is authorized to require the removal of occupants at a location when actual occupancy exceeds the permitted or posted occupant load. A person commits an offense if he refuses to obey an order to vacate.

*SECTION 202, GENERAL DEFINITIONS is amended by adding definitions and modifying existing definitions to read as follows:*

## **SECTION 202**

### **GENERAL DEFINITIONS**

ADMINISTRATOR is the City Manager for the City of San Antonio, Texas.

AUTHORIZED EMERGENCY VEHICLE shall have the meaning set out in the Texas Transportation Code § 541.201.

DESIGNATED PREMISES shall mean property being used for a purpose allowed as a permitted use in an Apartment District, Office District, Local Retail District, Business District, Commercial District, Manufacturing District, Multiple Family Residence District, Mobile Home District, Townhouse Residence District, Industry District, or Planned Unit Development District as those terms are used in Chapter 35 of the City Code of San Antonio, Texas, whether or not the premises are so zoned, or a public or private school, or a church, or a facility owned or operated by the City or Bexar County or by a city-owned utility, where off-street parking is provided on the premises for occupants thereof and others.



[BF] FIRE AREA. The aggregate floor area enclosed and bounded by fire walls, fire barriers, exterior walls or horizontal assemblies of a building. Areas of the building not provided with surrounding walls shall be included in the fire area if such areas are included within the horizontal projection of the roof or floor next above.

Exception: Outdoor covered areas shall not be considered fire areas, nor shall they be considered as part of the fire area of a connected building where all of the following conditions are met:

1. The outdoor covered area is a Group A2 Occupancy less than 1,000 ft<sup>2</sup> or is a Group A3 Occupancy. If multiple Group A2 Occupancy outdoor covered areas are proposed, then the aggregate area of all of these areas shall be less than 1,000 ft<sup>2</sup> or separated by a minimum of 20 feet from each other.
2. The outdoor covered area is open on at least three sides and open a minimum of 50 percent of the perimeter of the area covered. In order to be considered "open" for the purpose of this exception, an open side shall be at least 50 percent open with the open area uniformly distributed to prevent the accumulation of smoke and toxic gases.
3. The outdoor covered area shall have adequate independent means of egress such that the occupants of the outdoor covered area are not required to egress through a connected or adjacent building.

FESTIVAL SEATING shall mean a form of audience/spectator accommodation in which no seating, other than a floor or ground surface, is provided for the audience/spectators gathered to observe a performance.

~~FIRE LANE: a road or other passageway developed to allow the passage of fire apparatus. A fire lane is not necessarily intended for vehicular traffic other than fire apparatus.~~

FIRE LANE shall mean any area appurtenant to entrances or exits of a building deemed necessary by the Fire Chief or his designee to remain free and clear of parked vehicles for access to such building in case of fire or other emergency and designated by him as such, and may include sidewalks, driveways, portions of parking lots, or any other area adjacent to or near building entrances or exits, or any fire hydrant.

FIRE MARSHAL shall mean the fire code official responsible for investigations of fires, inspection of facilities, and code enforcement.

FIRE WATCH. A temporary measure intended to ensure continuous and systematic surveillance of a building or portion thereof by one or more qualified individuals for the purposes of identifying and controlling hazards, detecting early signs of unwanted fire, raising an alarm of fire and notifying the fire department. Qualified individuals are defined as State Certified Fire Inspectors assigned to the Fire Prevention Division of the City of San Antonio, or, if approved by the Fire Marshal, Texas Certified Firefighters, Peace Officers, individuals employed by a private security firm, or other designated individuals whose sole duty when assigned a fire watch is to perform constant patrols of the premises and keep watch for signs of unwanted fire. A written log must be maintained, and personnel must have at least one approved means of notifying the fire department of fire or other emergencies.

FOSTER CARE FAMILY HOME shall mean a single independent residential occupancy that is the primary residence of the caregiver and licensed by the state to provide twenty-four (24) hour care for six or fewer children (including those related to the caregiver) up to the age of eighteen (18) years.

HIGHWINDS. Sustained wind velocity of 15 mph or gusts of 25 mph.



MAINTENANCE AGREEMENT: A contractual agreement between a building owner and a licensed or registered firm to perform general maintenance work to life safety or fire protection or detection systems including, but not limited to, upgrades to an existing system that do not include modification to the existing system configuration and repair of fault conditions. Such an agreement may include provisions for testing and inspection in accordance with appropriate standards.

MOBILE FOOD ESTABLISHMENT shall mean a mobile food operation using any heat producing equipment to cook, fry, or warm products for consumption from a motorized vehicle, towable trailer, or watercraft.

MOBILE FOOD PREPARATION VEHICLES. Vehicles that contain cooking equipment that produce smoke or grease laden vapors for the purpose of preparing and serving food to the public. Vehicles intended for private recreation shall not be considered mobile food preparation vehicles.

MONITORING AGREEMENT: A contractual agreement between a building owner and a licensed or registered firm to provide monitoring service when required. Such service shall include either remote or central service.

NIGHT CLUB shall mean a *tavern* (as defined by the Unified Development Code, City of San Antonio, Texas) with more than 2,000 square feet of building area excluding kitchen, restrooms and storage areas. A nightclub use may include, in addition to the provision of alcohol for on premise consumption, a dance hall or dance floor, food services, and/or *live entertainment* (as defined by the Unified Development Code, City of San Antonio, Texas) as an accessory use when conducted less than 3 days per week. *Taverns* with less than 2,000 square feet of building area excluding kitchen, restrooms, and storage areas will be considered a nightclub for the purposes of this code if, in addition to the provision of serving alcohol for on premise consumption, the establishment provides all of the following:

1. Live entertainment (as defined by the Unified Development Code, City of San Antonio, Texas) or pre-recorded music, and
  2. A dance floor and
  3. Hours of operation that extend past 10:00 pm.
- Exceptions: Restaurants with a tavern as an accessory use, or establishments with 501 (c)(3) non-profit, tax exempt status.

[BG] Residential Group R-3. Residential Group R-3 occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

Foster Care Family Homes

PARK shall mean the standing of a vehicle, whether occupied or not, upon a street otherwise than temporarily for the purpose of, and while actively engaged in, receiving or discharging passengers or loading or unloading merchandise or in obedience to traffic regulations, signs, or signals or an involuntary stopping of a vehicle by reason of a cause beyond the control of the operator of the vehicle.

PORTE COCHERE. A roofed structure that is open on at least three sides and extends from the building entrance over an adjacent driveway and shelters vehicle ingress and egress.

SPECIAL EVENT shall mean an indoor or outdoor event that, in the opinion of the Fire Code Official or their designee, meets any of the following criteria:



1. Constitutes a use or occupant load ordinarily not permitted by the face of the Certificate of Occupancy.
2. Requires the means of egress to be altered from a configuration that was previously approved by the Building Code Official, Fire Code Official, or their designee (e.g., installation of booths, curtains, partitions, tables/chairs, etc. or the locking of select doors to limit access to portions of a building or area).
3. Poses a condition that compromises any life safety systems that were previously approved by the Building Code Official, Fire Code Official, or their designee (e.g., reduced lighting, increased sound levels, installation of alternate interior finishes, etc.).
4. Poses a condition that reduces the effectiveness of public safety services of any kind (e.g., Conditions that result in reduced access to fire hydrants, sprinkler riser/pump rooms, Fire Department Connections, etc.)."

NOTE: *Special Events* required to submit plans for each event (review and inspection) in accordance with Section 11-16 *Special Event Inspection* may submit standard configuration plan packages to the San Antonio Fire Department Fire Prevention Division for review and inspection on an annual basis. Any deviation from the standard configuration as described in the above criteria will require new plans to be submitted for review each time the *approved* standard configuration is altered. Approved standard configurations for *Special Events* are required to be reviewed and inspected for code compliance once per year.

SPECIAL HAZARD SYSTEM shall include any one of the following:

1. Carbon Dioxide Extinguishing Systems complying with Section 904.8 and NFPA Standard 12
2. Halon 1301 Systems complying with Section 904.9 and NFPA Standard 12A
3. Explosion Prevention Systems complying with Section 911.3 and NFPA Standard 69
4. Clean Agent Fire Extinguishing Systems complying with 904.10 and NFPA Standard 2001
5. Fixed Aerosol Fire Extinguishing Systems complying with Section 904.12 and NFPA Standard 2010

TESTING AND INSPECTION AGREEMENT: A contractual agreement between a building owner and a licensed or registered firm to perform testing and inspection work only for life safety or fire protection and detection equipment in accordance with appropriate standards.

*SECTION 304 COMBUSTIBLE WASTE MATERIAL is amended by adding SECTION 304.2.1 DANGEROUS STORING OF COMBUSTIBLES to read as follows:*

**304.2.1 Dangerous storing of combustibles.** It shall be unlawful and a nuisance for any person to have or keep or store, within the city, any quantity of tar, pitch, resin, petroleum or its products, or other combustible materials or substances in such manner that such materials or substances shall be in danger of taking and communicating fire.

*SECTION 305 IGNITION SOURCES is amended by adding SECTION 305.6 IGNITED MATERIALS IN STREETS PROHIBITED to read as follows:*



**305.6 Ignited materials in streets prohibited.** No person may place or possess burning materials on a street, alley, or public easement if that conduct creates a disturbance or causes a fire hazard.

*SECTION 307.1 GENERAL is amended by adding SECTION 307.1.2 CARRYING BURNING MATERIALS to read as follows:*

**307.1.2 Carrying burning materials.** No person in the city shall carry or cause to be carried, in any street or other thoroughfare, any burning coal or firebrands, unless the same is shut up in a covered vessel.

*SECTION 307.2 PERMIT REQUIRED is amended by adding SECTION 307.2.2 BURNING RUBBISH, BRUSH AND OTHER COMBUSTIBLE MATTER to read as follows:*

**307.2.2 Burning rubbish, brush and other combustible matter.**

1. Unlawful to burn trash without permit. It shall be unlawful for any person to burn or cause to be burned, any trash, brush, tree limbs, grass, trees, leaves, paper, boards, planks, shavings, or any other combustible materials whatsoever within the corporate limits of the City, without first having a permit as required by subsection (2) of this section, unless the same is burned in an incinerator or container which has been approved in writing by the Fire Chief or his designee, and said incinerator or container when used for burning shall be located in such a way that no smoke shall go into surrounding buildings, nor shall the operation of said incinerator or container create a fire hazard to the surrounding property.
2. Application for a permit. Any person desiring to burn any trash or other combustible material within the City shall make application to the Fire Chief or his designee for a permit to burn said materials. The application for a permit shall contain the following information:
  - a. The name, address and telephone number of the person making application for permit.
  - b. The type of material and the quantity to be burned.
  - c. The location in the City at which the material is to be burned and the legal description of the property together with the name and owner of the property.
  - d. The date on which the material is to be burned and the time at which the burning will commence and the estimated time necessary to complete the burning.
  - e. A statement by the person making the application that he assumes all liability and responsibility for all damages to all persons and property by reason of the fire, and that he will take all necessary precautions to ensure that no damages result from the fire.
  - f. A statement by the person making the application for a permit that he will burn the materials only on the date and at the time designated in the permit issued by the Fire Chief or his designee, and in accordance with any special instruction set forth in the permit issued by the Fire Chief's Office.
3. Permit issued after investigation. When an application to burn any trash or other combustible materials is made to the Fire Chief, and such burning is not a violation of air pollution standards, he shall make an inspection of the premises on which the material is to be burned and the surrounding property to determine if the burning, as requested by the applicant would be a fire hazard and dangerous to the adjoining or nearby property. If the Fire Chief, or his designee, finds from his inspection of the property that the burning would not be a fire hazard or danger to adjoining or nearby property, or violation of air pollution standards, he shall cause to be issued a permit which shall contain the following information and conditions:

- a. The name, address and telephone number of the person to which the permit is issued.
  - b. The location, address and telephone number of the person for which the material is to be burned.
  - c. The date and time at which the material is to be burned.
  - d. A statement that the applicant assumes all liability and responsibility for all damages to all persons and property by reason of the fire.
  - e. That the fire will not be left unguarded at any time during the burning and that an adult person shall be in attendance at all times.
  - f. Any condition which the Fire Chief or his designee find from the surrounding circumstances to be necessary to prevent the fire from being a fire hazard and a danger to adjoining or nearby property.
4. When not to issue a permit. No permit shall be issued for the burning of any materials at any time except during the day between one hour after sunrise and one hour before sunset, except for ceremonial bonfires, when:
- a. The site of the bonfire has been approved by the Fire Chief or his designee; and
  - b. The bonfire is held under the supervision of Fire Department personnel. Failure of any person or persons at such a bonfire to adhere to fire safety instructions and requirements of the Fire Department representative assigned to supervise same shall constitute a violation of this chapter. No permit shall be issued if the burning would be contrary to the provisions of this section, nor shall such permit be issued if the Fire Chief, or his designee, shall have reason to believe that weather conditions, type or location of the materials to be burned, or the use of property within the area affected would cause the burning to be a hazard or otherwise violate the provisions of this section.

*SECTION 308.1.4 OPEN-FLAME COOKING DEVICES is amended to read as follows:*

**308.1.4 Open-flame cooking devices.** Charcoal burners and other open-flame cooking devices shall not be operated on combustible balconies or within 10 feet (3048 mm) of a combustible construction surface.

Exceptions:

1. One-and two-family dwellings.
2. Where buildings, balconies and decks are protected by an automatic sprinkler system. Group R occupancies in compliance with the provisions, and meeting exceptions, of Section 308.4.2.
3. LP-gas cooking devices having LP-gas container with a water capacity not greater than 2 ½ pounds.

*SECTION 308.1 GENERAL is amended by adding SECTION 308.1.9 PROJECTION OF IGNITED MATERIALS to read as follows:*

**308.1.9 Projection of ignited materials.** No person shall drop or throw ignited material from a structure or vehicle.



*SECTION 308 OPEN FLAMES is amended by adding SECTION 308.3.3 CHAFING FUEL DEVICES and SECTION 308.4.2 FIRE HAZARD PROHIBITED to read as follows:*

**308.3.3 Chafing fuel devices.** Single-well cooking equipment using combustible oils or solids (chafing fuels) shall meet the following criteria:

1. They shall be used in commercially available devices intended for use with chafing fuels.
2. They shall be secured to the device to prevent tipping and unintentional movement.
3. They shall have lids available for immediate use.
4. They shall be used for warming only and not cooking.
5. They shall be limited to two ft<sup>2</sup> (0.2 m<sup>2</sup>) of warming surface.
6. They shall be placed on noncombustible surface materials.
7. They shall be separated from each other by a horizontal distance of not less than 24 in. (610 mm).
8. They shall be kept at a horizontal distance of not less than 24 in. (610 mm) from any combustible material.
9. A portable extinguisher with a minimum of a 2-A:10-B:C rating shall be provided within 30 ft of each chafing fuel device, or an approved automatic extinguishing system shall be provided.

**308.4.2 Fire hazard prohibited.** in Group R, Division 1 & 2 occupancies, a person shall not construct, erect, install, maintain or use any incinerator, barbecue pit or grill, or fuel fired lanterns, heaters, or torches or so burn any combustible material as to constitute or occasion a fire hazard by the use or burning thereof or as to endanger the life or property of any person thereof.

The use or burning of any such devices under the following conditions shall constitute a fire hazard and is strictly prohibited:

1. Within 10 linear feet of any combustible surface, including but not limited to decks, porches, balconies, walls, or verandas.
2. Beneath any balcony, porch, roof overhang, deck, or veranda.

Exceptions:

1. Fuel burning devices supplied by the building's source of fuel with additional safeguards as approved by the fire code official.
2. Outdoor kitchens connected as part of the R-1 or R-2 common recreation area with additional safeguards as approved by the fire code official.
3. One- and two-family dwellings, except where use or burning is within 5 feet of adjacent structure or neighboring property.

*SECTION 314.4 VEHICLES is amended to read as follows:*

**314.4 Vehicles.** Liquid-fueled or gaseous-fueled vehicles, aircraft, boats, or other motorcraft shall not be located indoors except as follows:

1. The engine starting system is made inoperable or batteries are disconnected, except where the fire code official requires that the batteries remain connected to maintain safety features.

2. Fuel in fuel tanks does not exceed one-quarter tank or 5 gallons (19L) (whichever is least) or for large diesel vehicles, minimum amount required to position vehicle.

Exception: Increase in fuel quantity may be authorized with additional safeguards or as approved by the fire code official.

3. Fuel tanks and fill openings are closed and sealed to prevent tampering.
4. Vehicles, aircraft, boats or other motorcraft equipment are not fueled or defueled within the building.

*SECTION 315.3.1 CEILING CLEARANCE is amended to read as follows:*

**315.3.1 Ceiling clearance.** Storage shall be maintained 2 feet (610 mm) or more below the ceiling in nonsprinklered areas of buildings or not less than 18 inches (457 mm) below the level of the sprinkler head deflectors in sprinklered areas of buildings.

Exceptions:

1. The 2-foot (610 mm) ceiling clearance is not required for storage along walls in nonsprinklered areas of buildings.
2. The 18-inch (457 mm) ceiling clearance is not required for storage along walls in areas of buildings equipped with an *automatic sprinkler system* in accordance with 903.3.1.1, 903.3.1.2 or 903.3.1.3

*SECTION 315.3.3 EQUIPMENT ROOMS is amended to read as follows:*

**315.3.3 Equipment rooms.** Combustible material shall not be stored in boiler rooms, mechanical rooms, electrical equipment rooms or in *fire command centers* as specified in Section 508.1.5, nor within 10 feet of any furnace or boiler room door.

*SECTION 319 MOBILE FOOD PREPARATION VEHICLES is amended to read as follows:*

## **SECTION 319**

### **MOBILE FOOD PREPARATION VEHICLES MOBILE FOOD ESTABLISHMENTS**

**319.1 General.** Mobile food ~~preparation vehicles~~ establishments that are equipped with appliances that produce smoke or grease-laden vapors shall comply with this section.

**319.2 Permit required.** ~~Permits shall be required as set forth in Section 105.5. It shall be unlawful to operate mobile food establishments without a permit as required by Section 105.5.32. Annual mobile food establishment permits must be displayed in a visible location in or on the mobile food establishment.~~

**319.2.1 Site placement.** Mobile food establishments left on site for more than 24 hours at carnivals, fairs, festivals, or other public events will be subject to Food Booth permit requirements, inspections, and fees as set forth in Section Chapter 11, Section 11-16 of the City Code and Section 105.5.32 of this code in addition to any fees associated with the annual mobile food establishment permits.

**319.3 Exhaust hood.** All Mobile Food Establishments ~~permitted after 90 days of the adoption of this code~~ after January 1, 2019, which utilize ~~C~~cooking equipment that produces grease-laden vapors, shall be provided with a kitchen exhaust hood in accordance with Section 606.



**319.4 Fire protection.** Fire protection shall be provided in accordance with Sections 319.4.1 ~~and 319.4.2~~ through 319.4.4.

**319.4.1 Fire protection for cooking equipment.** Cooking equipment shall be protected by automatic fire extinguishing systems in accordance with Section 904.13 when Section 319.3 applies.

**319.4.2 Fire extinguisher.** Portable fire extinguishers shall be provided in accordance with Section 906.4 and shall have a minimum of one (2A:10BC) portable fire extinguisher mounted in a conspicuous place within the kitchen area.

**319.4.3 Additional extinguishers.** In addition to any other required fire extinguisher, all mobile food vendors who deep fry shall have a class K portable fire extinguisher for up to four fryers having a maximum cooking medium capacity of 80 pounds each. For every additional group of four fryers having a maximum cooking capacity of 80 pounds each, an additional class K extinguisher will be required. For individual fryers exceeding six square feet in surface area, class K extinguishers will be installed in accordance with manufacturers' recommendations.

**319.4.4 Generators.** Mobile food vendors with portable generators shall have a (3A:40BC) portable fire extinguisher in addition to the other fire extinguishers.

**319.5 Appliance connection to fuel supply piping.** Gas cooking appliances shall be secured in place and connected to fuel-supply piping ~~with an appliance connector complying with ANSI Z21.69/CSA 6.16. The connector installation shall be configured in accordance with the manufacturer's installation instructions. Movement of appliances shall be limited by restraining devices installed in accordance with the connector and appliance manufacturers' instructions.~~

### **319.6 Baffles and Closures**

**319.6.1 Baffles.** All deep-fat fryers shall have a steel baffle between the fryer and surface flames of an adjacent appliance or shall maintain a 16-inch separation distance. The baffle, if installed, shall be eight inches in height.

**319.6.2 Lids.** A positive closing lid shall be required on the fryer with latching mechanisms that secure it in the open and closed positions. Exception: fryers installed under a fixed pipe extinguishing system.

**319.7 Emergency egress.** Emergency egress shall comply with Sections 319.7.1 through Section 319.7.2.2.

**319.7.1 Aisles.** Mobile food establishments shall have a clear, unobstructed height over the aisle-way portion of the unit of at least 74 inches from floor to ceiling, and a minimum of 30 inches of unobstructed horizontal aisle space.

**319.7.2 Additional exit.** Should travel distance from any portion of the interior exceed 10 feet, the mobile food establishments shall have a minimum of two exits located remote from each other and so arranged as to provide a means of unobstructed travel to the outside of the vehicle.

**319.7.2.1 Exit location.** A secondary means of egress shall be located remote of the main exit door, with an unobstructed minimum passage of 24" X 24 " to the outside. The bottom of this secondary means of egress shall not be more than four feet above the

vehicle floor or a readily accessible horizontal surface capable of supporting a weight of 300 pounds minimum opening to the outside.

**319.7.2.2 Latching.** The latch mechanism of any exit facility shall be operable by hand, and shall not require the use of a key or special knowledge for operation from the inside. The secondary exit shall be labeled with the word "EXIT" with two-inch minimum letters on contrasting background.

~~**319.6 Cooking oil storage containers.** Cooking oil storage containers within mobile food preparation vehicles shall have a maximum aggregate volume not more than 120 gallons (454 L) and shall be stored in such a way as to not be toppled or damaged during transport.~~

~~**319.7 Cooking oil storage tanks.** Cooking oil storage tanks within mobile food preparation vehicles shall comply with Sections 319.7.1 through 319.7.5.2.~~

~~**319.7.1 Metallic storage tanks.** Metallic cooking oil storage tanks shall be *listed* in accordance with UL 80 or UL 142, and shall be installed in accordance with the tank manufacturer's instructions.~~

~~**319.7.2 Nonmetallic storage tanks.** Nonmetallic cooking oil storage tanks shall be installed in accordance with the tank manufacturer's instructions and shall comply with both of the following:~~

- ~~1. Tanks shall be *listed* for use with cooking oil, including maximum temperature to which the tank will be exposed during use.~~
- ~~2. Tank capacity shall not exceed 200 gallons (757 L) per tank.~~

~~**319.7.3 Cooking oil storage system components.** Metallic and nonmetallic cooking oil storage system components shall include, but are not limited to, piping, connections, fittings, valves, tubing, hose, pumps, vents and other related components used for the transfer of cooking oil.~~

~~**319.7.4 Design criteria.** The design, fabrication and assembly of system components shall be suitable for the working pressures, temperatures and structural stresses to be encountered by the components.~~

~~**319.7.5 Tank venting.** Normal and emergency venting shall be provided for cooking oil storage tanks.~~

~~**319.7.5.1 Normal vents.** Normal vents shall be located above the maximum normal liquid line, and shall have a minimum effective area not smaller than the largest filling or withdrawal connection. Normal vents are not required to vent to the exterior.~~

~~**319.7.5.2 Emergency vents.** Emergency relief vents shall be located above the maximum normal liquid line, and shall be in the form of a device or devices that will relieve excessive internal pressure caused by an exposure fire. For nonmetallic tanks, the emergency relief vent shall be allowed to be in the form of construction. Emergency vents are not required to discharge to the exterior.~~

~~**319.8 LP-gas systems.** Where LP-gas systems provide fuel for cooking appliances, such systems shall comply with Chapter 61 and Sections 319.8.1 through 319.8.5 319.8.8.~~

~~**319.8.1 Maximum aggregate volume.** The maximum aggregate capacity of LP-gas containers transported on the vehicle and used to fuel cooking appliances only shall not exceed 200 pounds (91 kg) propane capacity.~~



**319.8.2 Protection of container.** LP-gas containers installed on the vehicle shall be securely mounted and restrained to prevent movement. LP-gas containers shall be located and secured on the exterior of the mobile food establishment, open to atmosphere or if containers are kept in compartment, said compartment must be separate from the interior food preparation area. Access must be from the exterior of the unit and compartment floor and exterior door must be vented to the atmosphere.

**319.8.3 LP-gas container construction.** LP-gas containers shall be manufactured in compliance with the requirements of 2020 NFPA 58.

**319.8.4 Protection of system piping.** LP-gas system piping, including valves and fittings, shall be adequately protected to prevent tampering, impact damage, and damage from vibration.

**319.8.5 LP-gas alarms.** A listed LP-gas alarm shall be installed within the vehicle in the vicinity of LP-gas system components, in accordance with the manufacturer's instructions.

**319.8.6 No smoking sign.** All mobile units with propane shall post a "NO SMOKING" sign next to or directly above the propane bottle and visible to the public. Such sign shall be posted with a minimum of four-inch lettering.

**319.8.7 Listed hoses.** Any hose used to pipe LP-gas to a device shall be listed by UL, FM, or other approved agency and listed specifically for LP Gas service. All couplings, fittings, and any other devices shall meet the requirements for LP Gas Service as outlined in the International Fuel Gas Code, NFPA 58 and 54, or be deemed unapproved and removed from service.

**319.8.8 LPG tank location.** LPG tanks shall be located outside the mobile food establishment a minimum of five feet from the primary means of egress.

**319.9 CNG systems.** Where CNG systems provide fuel for cooking appliances, such systems shall comply with Sections 319.9.1 through 319.9.4.

**319.9.1 CNG containers supplying only cooking fuel.** CNG containers installed solely to provide fuel for cooking purposes shall be in accordance with Sections 319.9.1.1 through 319.9.1.3

**319.9.1.1 Maximum aggregate volume.** The maximum aggregate capacity of CNG containers transported on the vehicle shall not exceed 1,300 pounds (590 kg) water capacity.

**319.9.1.2 Protection of container.** CNG containers shall be securely mounted and restrained to prevent movement. Containers shall not be installed in locations subject to a direct vehicle impact.

**319.9.1.3 CNG container construction.** CNG containers shall be an NGV-2 cylinder.

**319.9.2 CNG containers supplying transportation and cooking fuel.** Where CNG containers and systems are used to supply fuel for cooking purposes in addition to being used for transportation fuel, the installation shall be in accordance with NFPA 52.

**319.9.3 Protection of system piping.** CNG system piping, including valves and fittings, shall be adequately protected to prevent tampering, impact damage and damage from vibration.

**319.9.4 Methane alarms.** A listed methane gas alarm shall be installed within the vehicle in accordance with manufacturer's instructions.

**319.10 Maintenance.** Maintenance of systems on mobile food preparation vehicles shall be in accordance with Sections 319.10.1 through ~~319.10.3~~ 319.10.2.

**319.10.1 Exhaust system.** The exhaust system, including hood, grease-removal devices, fans, ducts and other appurtenances, shall be inspected and cleaned in accordance with Section 606.3.

**319.10.2 Fire protection systems and devices.** Fire protection systems and devices shall be maintained in accordance with Section 901.6.

~~**319.10.3 Fuel gas systems.** LP gas containers installed on the vehicle and fuel gas piping systems shall be inspected annually by an *approved* inspection agency or a company that is registered with the US Department of Transportation to requalify LP gas cylinders, to ensure that system components are free from damage, suitable for the intended service and not subject to leaking. CNG containers shall be inspected every 3 years in a qualified service facility. CNG containers shall not be used past their expiration date as listed on the manufacturer's container label. Upon satisfactory inspection, the approved inspection agency shall affix a tag on the fuel gas system or within the vehicle indicating the name of the inspection agency and the date of satisfactory inspection.~~

*CHAPTER 3 GENERAL REQUIREMENTS is amended by adding SECTION 322 FOOD BOOTHS to read as follows:*

### **SECTION 322** **FOOD BOOTHS**

**322.1 Permits.** For permit to operate a food booth, see Section 105.5.54. It shall be unlawful to operate a food booth without a permit.

**322.2 Fire Extinguishers.** A minimum of one 2A:10BC fire extinguisher shall be required for all food booths. Booths containing deep fat fryers shall have a class K portable fire extinguisher for up to four fryers having a maximum cooking medium capacity of 80 pounds each. For every additional group of four fryers having a maximum cooking capacity of 80 pounds each, an additional class K extinguisher will be required. For individual fryers exceeding 6 square feet in surface area, class K extinguishers will be installed in accordance with manufacturers' recommendations. All fire extinguishers shall have a current annual inspection sticker (within a year) issued by a *licensed* extinguisher company or provide proof that the extinguisher is new (store receipt).

**322.3 Location.** Food booths utilized for cooking shall have a minimum of 10 feet clearance on two sides. Booths shall not be placed in fire lanes unless otherwise approved by the fire code official. Booths shall not be placed within 10 feet of amusement rides or devices.

**322.4 Cooking equipment location.** Barbeque pits shall not be located within 10 feet of combustible materials. Barbeque pits shall not be located under the food booth canopy.



**322.5 Acceptable cooking sources.** The following are the only approved cooking sources for food booths:

1. Wood or charcoal
2. Propane
3. Natural Gas
4. Electricity

**322.6 Generators.** Fuel tanks shall be of adequate capacity to permit uninterrupted operation during normal operating hours. Generators shall be isolated from contact with the public. Storage of gasoline is not allowed in or near generators or food booths.

**322.7 Decorations.** All decorative material shall be at least six feet away from any open flame, cooking element, or heat source or be flame resistant.

**322.8 Escape route.** All concession stands shall have a minimum of a three ft. aisle for emergency escape.

**322.9 Propane.** All equipment used in conjunction with propane tanks must be UL Listed for the purposes in which they will be used. Tanks shall be secured to prevent falling. Tanks shall only be white or aluminum in color. Only one spare tank will be allowed in a food booth. Emptied propane tanks are to be removed from the site immediately after use. Regulators shall be attached to the tanks as close as possible. Leaks can be detected using a soap and water solution. Tank shutoff valves and/or additional shutoff valves shall be accessible and away from the cooking appliance(s). Propane tanks shall not be within five feet of an ignition source. Propane tanks shall not be located within 10 feet of a building door or window.

**322.10 Area.** A food booth shall consist of an area 10 feet by 10 feet. Extended food booths that exceed 10 feet by 10 feet space and used for cooking will be charged additional fees. These fees will be charged in one hundred square foot increments and any portion thereof.

*CHAPTER 3 GENERAL REQUIREMENTS is amended by adding SECTION 323 PORTABLE OUTDOOR GAS-FIRED HEATING APPLIANCES to read as follows:*

### **SECTION 323**

#### **PORTABLE OUTDOOR GAS-FIRED HEATING APPLIANCES.**

##### **323.1 General Requirements.**

1. It shall be unlawful to operate portable outdoor gas-fired heating appliances without a permit as required by Section 105.5.55.
2. Portable outdoor gas-fired heating appliances must comply with Section 605.5 of this code.
3. One 2A:10BC fire extinguisher installed in accordance with NFPA 10 and Section 906 of this code must be provided for every 3000 square feet of area where portable outdoor gas-fired heating appliances are used. The maximum travel distance to a fire extinguisher is not to exceed 75 feet.

*CHAPTER 3 GENERAL REQUIREMENTS is amended by adding SECTION 324 PARADE FLOATS to read as follows:*

**SECTION 324**  
**PARADE FLOATS**

**324.1 Permits.** For a permit to operate a Parade Float, see Section 105.5.56. It shall be unlawful to operate a Parade Float without a permit.

**324.2 Decorative materials.** Decorative material on parade floats shall be noncombustible or flame retardant.

**324.3 Fire protection.** Motorized parade floats and towing apparatus shall be provided with a minimum 2A:10BC-rated portable fire extinguisher readily accessible to the operator.

**324.4 Exhaust pipes.** Motorized float exhaust pipes must be extended past the exterior of the float and be clear of all decorative material.

**324.5 Escape hatch.** Motorized floats shall be equipped with a quick escape hatch from interior driver compartments.

*SECTION 403.2 GROUP A OCCUPANCIES is amended by adding SECTION 403.2.5 EXHIBITION HALLS - GENERAL to read as follows:*

**403.2.5 Exhibit halls - general.** The operator of premises used as a place of exhibition shall:

1. Notify each lessee of the Fire Code requirements at the time the lease is made;
2. Where required by the Fire Chief or his designee, submit to the Fire Chief or his designee, 15 days before public operation, a detailed explanation of the nature of the operation and two copies of accurately scaled floor plans which show:
  - a. The exhibit layout;
  - b. Aisles;
  - c. Exits;
  - d. Exhibits;
  - e. Show decorator's booth;
  - f. Location and nature of fire extinguishing equipment; and
  - g. Dates when open to the public or trade.
3. Construct, operate, and maintain the exhibition in a manner satisfying this code and the approved plans.
4. Employ one or more certified fire inspector(s) of the SAFD as required and approved by the Fire Marshal, to be on duty at such place whenever, in the opinion of the Fire Marshal, it is essential for public safety.



5. A floor plan of display area must be submitted to the Fire Marshal at least 15 days prior to the event for approval.

*SECTION 403.2 GROUP A OCCUPANCIES is amended by adding SECTIONS 403.2.6 SITTING OR STANDING IN AISLES PROHIBITED, 403.2.7 AUTOMOTIVE VEHICLES AND EQUIPMENT IN EXHIBIT HALLS, SECTION 403.2.8 COOKING AND FOOD-WARMING DEVICES IN EXHIBIT BOOTHS, SECTION 403.2.9 WAITING SPACES, SECTION 403.2.10 LIFE SAFETY EVALUATION , SECTION 403.2.11 EVALUATION CONTENT, SECTION 403.2.12 OUTDOOR FACILITIES, SECTION 403.2.13 GENERAL REQUIREMENTS FOR ACCESS AND EGRESS ROUTES WITHIN ASSEMBLY AREAS, SECTION 403.2.14 FLAME-RETARDANT REQUIREMENT, SECTION 403.2.15 EXHIBITS, and SECTION 403.2.16 OPEN FLAME DEVICES to read as follows:*

**403.2.6 Sitting or standing in aisles prohibited.** The operator of premises used as a place of assembly shall prevent the sitting or standing in aisles, passageways, or stairways while the premises are occupied.

**403.2.7 Automotive vehicles and equipment in exhibit halls.** The operator of and exhibitors at premises used as a place of exhibition may display automotive vehicles and equipment inside a structure if:

1. The amount of fuel in the vehicle or equipment fuel tanks is limited to the greater of:
  - a. The minimum amount adequate for vehicle positioning; or
  - b. One quarter tank or five gallons, whichever is lessException: Increase in fuel quantity is authorized with additional safeguards as approved by the fire code official.
2. Vehicle or equipment tanks are effectively locked or adequately sealed;
3. Vehicle or equipment battery cables are disconnected from the ignition systems;
4. Vehicle or equipment ignition keys are possessed at all times by a responsible person at the display location;
5. Vehicle operation is limited to brief parade type displays as specifically approved by the Fire Marshal;
6. Show vehicles with LPG tanks shall not be permitted inside the exhibit halls.

**403.2.8 Cooking and food-warming devices in exhibit booths.**

1. Gas-fired devices shall comply with the following:
  - a. Natural gas-fired devices shall be in accordance with NFPA 54, National Fuel Gas Code, or NFPA 58, Liquefied Petroleum Gas Code.
  - b. The use of LP-Gas cylinders shall be prohibited.
  - c. Nonrefillable LP-Gas cylinders shall be approved for use where permitted by the authority having jurisdiction.
2. The devices shall be isolated from the public by not less than 48 in. (1220 mm) or by a barrier between the devices and the public.

3. Single-well cooking equipment using combustible oils or solids shall meet the following criteria:
  - a. They shall have lids available for immediate use.
  - b. They shall be limited to two ft<sup>2</sup> (0.2 m<sup>2</sup>) of cooking surface.
  - c. They shall be placed on noncombustible surface materials.
  - d. They shall be separated from each other by a horizontal distance of not less than 24 in. (610 mm).
  - e. They shall be kept at a horizontal distance of not less than 24 in. (610 mm) from any combustible material.
4. A portable fire extinguisher shall be provided within the booth for each device or an approved automatic extinguishing system shall be provided.

**403.2.9 Waiting spaces.** In theaters and other assembly occupancies where persons are admitted to the building at times when seats are not available or when the permitted occupant load has been reached and persons are allowed to wait in a lobby or similar space until seats or space is available, the following requirements shall apply:

1. Such use of a lobby or similar space shall not encroach upon the required clear width of exits.
2. The waiting spaces shall be restricted to areas other than the required means of egress.
3. Exits for waiting spaces shall be in addition to the exits specified for the main auditorium area.

**403.2.10 Life safety evaluation.** Where the occupant load of an assembly occupancy exceeds 6000, a life safety evaluation shall be performed. Where a life safety evaluation is required by other provisions of the Code, it shall comply with the following:

1. The life safety evaluation shall be performed by persons acceptable to the authority having jurisdiction.
2. The life safety evaluation shall include a written assessment of safety measures for conditions listed in Section 403.2.11.
3. The life safety evaluation shall be approved annually by the authority having jurisdiction and shall be updated for special or unusual conditions.

**403.2.11. Evaluation content.** Life safety evaluations shall include an assessment of the following conditions and the related appropriate safety measures:

1. Nature of the events and the participants and attendees
2. Access and egress movement, including crowd density problems
3. Medical emergencies
4. Fire hazards



5. Permanent and temporary structural systems
6. Severe weather conditions
7. Earthquakes
8. Civil or other disturbances
9. Hazardous materials incidents within and near the facility
10. Relationships among facility management, event participants, emergency response agencies, and others having a role in the events accommodated in the facility

**403.2.12 Outdoor facilities.** In outdoor facilities, where approved by the authority having jurisdiction, the number of occupants who are each provided with not less than 15 square feet (1.4 m<sup>2</sup>) of lawn surface shall be permitted to be excluded from the maximum occupant load of 6000 in determining the need for a life safety evaluation.

**403.2.13 General requirements for access and egress routes within assembly areas.** General requirements shall comply with 403.2.13.1 and 403.2.13.2.

**403.2.13.1 Festival seating.** Festival seating shall be prohibited within a building, unless otherwise permitted by the following:

1. Festival seating shall be permitted in assembly occupancies having occupant loads of 250 or less.
2. Festival seating shall be permitted in assembly occupancies where occupant loads exceed 250, provided that an approved life safety evaluation has been performed.

**403.2.13.2 Access and egress routes.** Access and egress routes shall be maintained so that crowd management, security, and emergency medical personnel are able to reach any individual at any time, without undue hindrance.

**403.2.14 Flame-retardant requirement.** Scenery and prop material construction shall comply with 403.2.14.1 through 403.2.14.3

**403.2.14.1 Combustible scenery.** Combustible scenery of cloth, film, vegetation (dry), and similar materials shall meet the requirements of NFPA 701, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.

**403.2.14.2 Foamed plastics.** Foamed plastics shall be permitted to be used only by specific approval of the authority having jurisdiction.

**403.2.14.3 Scenery and props.** Scenery and stage properties on thrust stages shall be of noncombustible materials, limited-combustible materials, or fire-retardant-treated wood.

**403.2.15 Exhibits.** Exhibits shall comply with 403.2.15.1 through 403.2.16.

**403.2.15.1 Travel distance.** The travel distance within the exhibit booth or exhibit enclosure to an exit access aisle shall not exceed 50 ft (15 m).

**403.2.15.2 Multilevel exhibits.** The upper deck of multilevel exhibits exceeding 300 ft<sup>2</sup> (28 m<sup>2</sup>) shall have not less than two remote means of egress.

**403.2.15.3 Construction.** Exhibit booths shall be constructed of the following:

1. Noncombustible or limited-combustible materials.
2. Wood exceeding ¼ in. (6.3 mm) nominal thickness.
3. Wood that is pressure-treated, fire-retardant wood meeting the requirements of NFPA 703, Standard for Fire Retardant-Treated Wood and Fire-Retardant Coatings for Building Materials.
4. Flame-retardant materials complying with NFPA 701, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.
5. Foamed plastics and materials containing foamed plastics having a heat release rate for any single fuel package that does not exceed 100 kW, where tested in accordance with UL 1975, Standard for Fire Tests for Foamed Plastics Used for Decorative Purposes.
6. Cardboard, honeycombed paper, and other combustible materials having a heat release rate for any single fuel package that does not exceed 150 kW, where tested in accordance with UL 1975, Standard for Fire Tests for Foamed Plastics Used for Decorative Purposes.

**403.2.15.4 Curtains, drapes, and decorations.** Curtains, drapes, and decorations shall comply with section 807.1.

**403.2.15.5 Decorative material.** Acoustical and decorative material including, but not limited to, cotton, hay, paper, straw, moss, split bamboo, and wood chips shall be flame-retardant treated to the satisfaction of the authority having jurisdiction and conforming to flame-proofing requirements of the NFPA.

**403.2.15.5.1 Treatment.** Materials that cannot be treated for flame retardancy shall not be used.

**403.2.15.5.2 Foam products.** Foamed plastics, and materials containing foamed plastics and used as decorative objects such as, but not limited to, mannequins, murals, and signs, shall have a heat release rate for any single fuel package that does not exceed 150 kW where tested in accordance with UL 1975, Standard for Fire Tests for Foamed Plastics Used for Decorative Purposes.

**403.2.15.5.3 Aggregate area as approved.** Where the aggregate area of acoustical and decorative materials is less than 10 percent of the individual floor or wall area, such materials shall be permitted to be used subject to the approval of the authority having jurisdiction.

**403.2.16 Open flame devices.** Open flame devices within exhibit booths shall comply with Section 308.

*SECTION 405.3 FREQUENCY is amended by adding SECTION 405.3.1 CONDUCTING FIRE DRILLS IN E OCCUPANCIES to read as follows:*



**405.3.1 Conducting fire drills in E occupancies.** The operator of premises housing an E Occupancy shall conduct fire drills:

1. Without warning;
2. In a manner requiring:
  - a. all students to immediately leave the structure upon hearing the fire drill signal;
  - b. a roll call by classes outside the structure; and
  - c. doors to be closed as each area is evacuated;
3. In a manner simulating fire conditions;
4. In a manner prohibiting students from running or playing;
5. If approved, in a manner permitting security persons to remain inside the structure during drills, which include:
  - a. Complete checks of each section of the structure;
  - b. The use of varying evacuation routes;
  - c. Occasional simulation of blocked exits;
  - d. Provisions for calling the fire department; and
  - e. The use of varying drill times;
6. During weather which does not pose a health threat to students;
7. As an exercise in discipline and procedure, rather than speed; and
8. By pulling a manual pull station.

*SECTION 405.3 FREQUENCY is amended by adding SECTION 405.3.2 FIRE DRILLS FOR E OCCUPANCIES to read as follows:*

**405.3.2 Fire drills for E occupancies.** FIRE CHIEF'S POWER TO ORDER FIRE DRILL. The Fire Chief may require a fire drill at any E Occupancy at any time.

*S E C T I O N S 407.5 HAZARDOUS MATERIALS INVENTORY STATEMENT and 407.6 HAZARDOUS MATERIALS MANAGEMENT PLAN are repealed and replaced by S E C T I O N S 407.5 HAZARDOUS MATERIALS INVENTORY STATEMENT and 407.6 HAZARDOUS MATERIALS MANAGEMENT PLAN to read as follows:*

**407.5 Hazardous materials inventory statement.** Where required by the fire code official, each application for a permit shall include a Hazardous Materials Inventory Statement (HMIS). The HMIS shall comply with NFPA 1 annex D.

**407.6 Hazardous materials management plan.** Where required by the fire code official, each application for a permit shall include a Hazardous Materials Management Plan (HMMP). The HMMP shall comply with NFPA 1 annex D. The fire code official is authorized to accept a similar plan required by other regulations.

*SECTION 501.3 CONSTRUCTION DOCUMENTS is amended by adding SECTION 501.3.2 SITE PLAN to read as follows:*

**501.3.2 Site plan.** A digital copy of the Fire Protection Site Plan (labeled as such) shall be submitted with the construction documents at the time of application for a building permit. Plans must be reviewed and approved by the Fire Marshal and/or fire plan review staff prior to issuance of a building permit. The approved Fire Protection Site Plan will be retained by the City of San Antonio. The Fire Protection Site Plan shall show and include, but not be limited to, the following:

1. Compass reading.
2. Property and/or lot lines.
3. Street frontages.
4. Location of all buildings (existing and proposed).
5. Fire apparatus access roads (i.e., fire lanes, aerial apparatus access roads) to buildings. Fire lanes shall be highlighted and shall include dimensions (width, turning radii, clearance to overhead obstructions, etc). The plans shall also show dimensions and calculations for evaluation of compliance with Section D105.3.
6. Fences, gates, walls, streams and other obstructions to firefighter access.
7. Location of all fire hydrants (existing and proposed). This shall include the direction and the distance to all hydrants not shown on the site plan, but within one thousand feet of the building to be protected.
8. Size (diameter and length) and locations of all fire main piping (proposed and existing). The pressure class and type of new pipe to be installed shall be identified.
9. The location, type, and size of backflow prevention devices, where installed.
10. Number of lanes, including turning lanes, of all adjacent streets and the location of medians as applicable.
11. Location of all automatic sprinkler and standpipe risers.
12. Location of fire department connection(s).
13. Size, type, and location of valves including post indicator valve (if they are located in a pit), control room automatic sprinkler system shut-off, etc.
14. Other water supplies.
15. Where required, type of protection from collision that may cause physical damage to fire protection equipment.

*SECTIONS 503.1.1 BUILDINGS AND FACILITIES and 503.1.1.1 ACCESS FROM ADJACENT LOT are amended to read as follows:*



**503.1.1 Buildings and facilities.** Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45 720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility. In sprinklered Group R-2 apartment houses, the distance may be measured through open breezeways having a minimum clear width of six feet.

Exceptions:

1. The fire code official is authorized to increase the dimension of 150 feet (45 720 mm) where any of the following conditions occur:
  - a. The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3. The dimension shall be increased from 150 feet to 200 feet. This increase shall not be applicable to Groups H and I Occupancies, buildings with occupancies having High-Piled Combustible Storage and high-rise buildings.
  - b. Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or other similar conditions, and an approved alternative means of fire protection is provided.
  - c. There are not more than two Group R-3 or Group U occupancies.
  - d. The building is a non-combustible Group S-2 open parking garage meeting the requirements of the 2021 International Building Code Section 406.3, with or without a sprinkler system. The increase shall be allowed to be up to 200 feet.
2. Where approved by the fire code official, fire apparatus access roads shall be permitted to be exempted or modified for solar photovoltaic power generation facilities.

**503.1.1.1 Access from adjacent lot.** Where fire apparatus access roads for a building or buildings are provided from an adjacent lot, a fire lane easement or ingress/egress easement is required to be recorded on the adjacent lot's plat that is providing the common access. The adjacent lot's plat is to clearly show the easement graphically.

Exception: In lieu of the graphical easement, a note may be placed on the plat that, at a minimum, states, the following: "Ingress and egress shall be provided between all adjacent lots for adequate fire department vehicle access per the City of San Antonio Fire Code. The cross access shall not be blocked, nor may this note be taken off the plat without written permission from the City of San Antonio Director of Development Services and the San Antonio Fire Department Fire Marshal."

*SECTION 503.2.1 DIMENSIONS is amended by adding SECTIONS 503.2.1.1 DIVIDED ENTRANCE TO PROPERTY and 503.2.1.2 MOUNTABLE CURBS to read as follows:*

**503.2.1.1 Divided entrance to property.** When guard houses, security stations, median, landscape islands or other similar use obstructions are so located as to create a one-way and partially obstruct the entrance(s) to a property or fire lane(s) in any location, such one way(s) shall be a minimum of fourteen

feet clear on each side of the obstruction. This minimum requirement is only applicable at the point(s) of obstruction and is not permitted along required aerial apparatus access roads, fire apparatus access roads adjacent to fire hydrants or fire department connections, or at any location where a fire apparatus vehicle is expected to be positioned for the duration of the fire event. Turning radii shall be permitted in accordance with Section 503.2.4.

**503.2.1.2 Mountable curbs.** Mountable curbs are permitted when *approved* by the Fire Marshal.

*SECTION 503.2.3 SURFACE is amended 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.

Drivable grass surfaces, or other alternative drivable surfaces, are permitted when approved by the Fire Marshal or his designee and in accordance with all of the following conditions:

1. Sealed documents indicating compliance with the provisions of 503.2.3 shall be submitted by a registered design professional for review.
2. The drivable grass surface, or alternative drivable surface, shall not be used as the primary access to the site.
3. The surface shall be capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds.
4. Blue traffic reflectors shall be provided on each side of the surface every 20 feet to clearly mark its boundaries. Vegetation on and surrounding the surface shall be maintained such that said reflectors are visible at all times.
5. Sod is not permitted to be placed over the drivable base.
6. If the surface proposed is to be used as the aerial apparatus access road for the facility, concrete curbing, or other approved edging, shall be installed along both sides of the portion to be used as such for enhanced lateral stability.
7. If sand or other free-flowing fill is used as a main structural component for the surface, concrete curbing or other approved edging shall be installed along both sides of the surface for material containment.
8. The surface shall be maintained in proper working order at all times when utilized as a required fire lane. Should the surface become damaged or fall into disrepair, the Fire Marshal or his designee shall be authorized to require the repair and re- certification of said surface.

*SECTION 503.2.4 TURNING RADIUS is amended to read 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.

The turning radii of a fire apparatus access roadway shall require a minimum of 50 feet outside radius and a minimum of 25 feet clear distance to the inside radius on all turns in excess of 30 degrees.



*SECTION 503.2.5 DEAD ENDS is amended to read as follows:*

**503.2.5 Dead ends.** Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) in length shall be provided with an approved area for turning around fire apparatus. Turn arounds approved by the Fire Marshal or as permitted by Appendix D are acceptable.

Exception: Where the building is equipped throughout with an approved sprinkler system in accordance with Section 903.3.1.1, 903.3.1.2, or 903.3.1.3, the maximum length of dead-end fire apparatus access roads shall be increased to 200 feet. This increase shall not be applicable to Groups H and I Occupancies, buildings with occupancies having High-Piled Combustible Storage, and high-rise buildings. This increase shall apply to all non-combustible Group S-2 open parking garages meeting the requirements of the 2021 International Building Code Section 406.3, with or without a sprinkler system.

*SECTION 503.2.7 GRADE is repealed and replaced with SECTION 503.2.7 GRADE to read as follows:*

**503.2.7 Grade.** The gradient for a fire apparatus access road shall not exceed 12%.

*SECTION 503.3 MARKING is repealed and replaced by SECTION 503.3 MARKING to read as follows:*

**503.3 Marking.** Upon the designation of a fire lane pursuant to this ordinance, the Fire Marshal shall give notice of such designation to the owner of such designated premise, directing the owner to cause signs to be posted at the expense of the owner at designated locations stating: "Fire Lane - No Parking at any Time City Ord. 54547." Such signs shall be of standard size and color, of standard lettering and mounting, conforming to specifications established by the Director of Public Works. In addition to the signs, the owners of such designated premises at their option, or, if so directed by the Fire Marshal, shall paint all fire lane curbs red with white-stenciled letters stating, "Fire Lane, No Parking". Lettering for the curbs shall use 4-inch lettering with a distance of not more than 40 feet between wording. It shall be unlawful to park any vehicle other than an authorized emergency vehicle in a designated fire lane when such signs are in place, or such red curbing exists. In areas where the fire lane may not be clearly defined, the Fire Marshal may require a 4-inch red stripe be painted that defines the boundaries of the fire lane.

*SECTION 503.4.1 TRAFFIC CALMING DEVICES is repealed.*

*SECTION 503.6 SECURITY GATES is amended to read as follows:*

**503.6 Security gates.** The installation of security gates across a fire apparatus access road shall be approved by the fire code official marshal. Where security gates are installed, they shall have an approved means of emergency operation to include a fire department specific key switch, lock, or box. Upon loss of power to electric gate operators, a secondary power source or clearly marked and identified manual release shall be provided. The security gates and the emergency operation shall be maintained operational at all times. 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.



**503.6.1 Direction of swing.** Security gates installed across a Fire Apparatus Access Road shall swing in the direction of travel towards the building or open horizontally to avoid backing up of Fire Apparatus and to allow for an expedited response.

*SECTION 503 FIRE APPARATUS ACCESS ROADS is amended by adding SECTIONS 503.7 FIRE MARSHAL AUTHORITY TO DESIGNATE FIRE LANES, 503.8 SUMMONS TO BE ISSUED FOR PARKING VIOLATION, 503.9 REMOVAL OF VEHICLE BY PROPERTY OWNER, 503.10 REMOVAL OF VEHICLE BY FIRE CHIEF, and 503.11 ABANDONMENT OF FIRE LANE to read as follows:*

**503.7 Fire marshal authority to designate fire lanes.** The Fire Marshal is hereby authorized to designate fire lanes on designated premises where such areas must be free of parked vehicles and other obstructions to provide ready access to buildings therein, in case of fire or other emergencies. The Fire Marshal's designation of such fire lanes does not obviate the owner of such property of their responsibility to maintain the area. Further, owners of the private property or their designated representative may request that additional fire lanes be designated by the Fire Marshal.

**503.8 Summons to be issued for parking violation.** A summons or notice to appear in answer to a charge of parking in violation of this section specifying the location of the fire lane in which such violation occurred and the date and time of such violation, may be issued by any police officer or any member of the Arson Investigating unit or inspectors in the Fire Prevention Bureau of the Fire Department.

**503.9 Removal of vehicle by property owner.** Except an authorized emergency vehicle, the owner of private property, or their agent, may have any motor vehicle that is parked in a legally designated fire lane removed and stored at either their own expense or that of the vehicle operator.

The owner of the premises, or their agent, who has a vehicle removed and stored, is not liable for damages incurred as a result of removal or storage, if the vehicle is removed by a vehicle wrecker service insured against liability for property damage incurred in towing vehicles and is stored by a storage company insured against liability for property damage incurred in the storage of vehicles.

**503.10 Removal of vehicle by fire chief.** Any vehicle parked in any designated fire lane may be removed at the vehicle owners' expense upon the authorization of the Fire Chief under the following conditions:

1. When the vehicle violates City Ordinance 54547 (Fire Lanes) by parking in a fire lane, or
2. When a vehicle blocks the ingress/egress of a business, theater, night club, apartment complex, gymnasium or a place of assembly, or
3. When a vehicle's presence threatens the life safety of the public by impeding the ability of the fire apparatus and emergency medical equipment to respond to an emergency.

The Fire Chief shall cause such vehicle to be removed by the towing service operating under a contract with the city and shall further cause such vehicle to be impounded in one of the Police Department Vehicle Storage sections.

**503.11 Abandonment of fire lane.** No owner, manager or person in charge of any premises served by a required fire lane shall abandon or close any such fire lane without the written permission from the Fire Marshal.



*SECTION 504.1 REQUIRED ACCESS is amended by adding SECTION 504.1.1 FIREFIGHTER PERSONNEL ACCESS to read as follows:*

**504.1.1 Firefighter personnel access.** A minimum width of five (5) feet of clear space shall be provided to allow for firefighter personnel to access the building from all sides of the exterior.

*SECTION 505.1 ADDRESS IDENTIFICATION is repealed and replaced with SECTION 505.1 ADDRESS IDENTIFICATION to read as follows:*

**505.1 Address identification.** New and existing buildings shall have approved address numbers, building numbers or approved building 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. Address characters shall be a minimum of 6 inches (102 mm) high with a minimum stroke width of 0.5 inch (12.7 mm). For buildings with individual suites, the suite numbers shall be a minimum of 4 inches high with a minimum stroke width of 0.5 inches. Where required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address numbers shall be maintained.

*SECTION 505 PREMISES IDENTIFICATION is amended to add sections 505.3 MULTI-BUILDING COMPLEXES, 505.3.1 MULTI-ADDRESS COMPLEXES, 505.4 MALL LEASE SPACES, and 505.5 TENANT IDENTIFICATION to read as follows:*

**505.3 Multi-building complexes.** Office, industrial and apartment complexes shall be identified by name and number on a site map at the main entry roadway to identify the location of each building in the complex.

**505.3.1 Multi-address complexes.** Office and industrial complexes with multiple addresses contained within shall post all addresses so that they are visible from roadway.

**505.4 Mall lease spaces.** Each mall lease space shall be identified by a uniform size number at a uniform easily visible location in proximity to exterior and mall entrance doors.

**505.5 Tenant identification.** Each occupied tenant space provided with a secondary exit to the exterior or exit corridor shall be provided with tenant identification by business name and address. Letters and numbers shall be posted on the corridor side of the door, be plainly legible and shall contrast with their background.

Exception: Tenant identification is not required for anchor stores.

*SECTION 506 KEY BOXES is amended to add SECTIONS 506.2.1 KEY BOX ACCESS AND REMOVAL OF KEYS and 506.3 KEY BOX LOCATION AND CONTENTS to read as follows:*

**506.2.1 Key box access and removal of keys.** The Fire Department shall have the only key to the key box. Removal of any key by other than the authorized Fire Department personnel shall be a violation of this Code.

**506.3 Key box location and contents.** Required key boxes shall be located as follows and as approved by the Fire Marshal:

1. Within 12 feet of the emergency elevators and visible from the entrance to the emergency elevator; or
2. Between 8 and 10 feet to the side of the main entrance level to the building and between 8 to 10 feet from the grade where practical, or as approved by the Fire Marshal.

The key box shall contain designated keys essential to emergency operations including, but not limited to, the following:

1. Elevator keys capable of accessing all floors in the building
2. Stairway keys
3. Fire control station keys
4. Alarm System keys

*SECTION 507.3 FIRE FLOW is repealed and replaced with SECTION 507.3.1 FIRE FLOW FOR RURAL ISOLATED AREAS to read as follows:*

**507.3 Fire flow.** Fire Flow requirements for buildings or portions of buildings and facilities shall be as per Appendix B of the International Fire Code or other *approved* method as determined by the Fire Marshal. When utilizing Table C105.1 to determine number and distribution of fire hydrants, and the flow requirement falls between the values on the table, the flow requirement shall be rounded up to meet the higher value.

**507.3.1 Fire flow for rural isolated areas.** The fire flow requirements for rural, isolated structures may be determined as follows. The Fire Marshal may modify the fire flow requirements for small isolated buildings or light hazard occupancies (as defined in the 2019 Edition of NFPA 13, referenced in Chapter 80) under the following conditions:

1. The building is fully protected with an approved automatic fire sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2;
2. The automatic sprinkler system demand, including hose stream demand is provided;
3. The building is located in a subdivision area considered by the Code Official to be in a rural setting;
4. Provision of a fully compliant water supply is a severe economic burden;
5. A minimum of 60 foot yard is provided between the buildings and property lines (dedicated right-of-way may be used to obtain clear distance); and
6. When the Fire Code required fire flow is available at the property line, the owner shall connect to the water supply system and provide on-site fire hydrants and water supply as is otherwise required by the Code.

*SECTION 507.4 WATER SUPPLY TEST is repealed and replaced with SECTION 507.4 WATER SUPPLY TEST to read as follows:*



**507.4 Water supply test.** Adequacy of the water supply shall be determined by an approved flow test that is conducted on the fire hydrants nearest the project site unless otherwise approved by the Code Official. The flow test shall be as follows:

1. The flow test shall have been conducted no more than 12 months prior to the date of construction document submittal to the City of San Antonio.
2. The flow test shall be conducted in accordance with NFPA 291, Recommended Practice for Fire Flow Testing and Marking of Hydrants and any other applicable local, state, or national standards and/or requirements.
3. The flow test results shall be submitted with the construction documents in accordance with the COSA standard fire flow test format.
4. If the water supply piping is not yet constructed, hydraulic calculations for the proposed piping design shall be submitted. The calculations shall be based on the flow test conducted on the fire hydrants nearest the project site and shall verify that the piping design provides the minimum required fire flow at no less than 25 psi residual. Upon completion of construction and prior to final certificate of occupancy, a flow test shall be conducted to verify the results of the calculations.

*SECTION 507.5.1 WHERE REQUIRED is repealed and replaced with SECTION 507.5.1 WHERE REQUIRED to read as follows:*

**507.5.1 Where required.** Public and/or private fire hydrants are required to be installed where one or more of the following conditions exist:

1. Existing fire hydrants do not meet the required fire hydrant location and spacing criteria defined in Section 507.5.1.1, 507.5.1.2, or Appendix C.
2. The complexity of the project justifies their installation as determined by the Fire Marshal.

*SECTION 507.5.1.1 HYDRANT FOR STANDPIPE SYSTEMS is repealed and replaced with SECTION 507.5.1.1 FIRE HYDRANT LOCATION AND SPACING FOR NON-SINGLE-FAMILY DEVELOPMENTS to read as follows:*

**507.5.1.1 Fire hydrant location and spacing for non-single-family developments.** Sufficient fire hydrants shall be considered to be provided for a building when:

1. Not more than 500 feet of hose will be required to reach from a fire hydrant to all exterior portions of the first floor of the structures in question; and

Exception: Where the building is equipped throughout with an approved sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2, or 903.3.1.3, the maximum distance from hydrants to all exterior portions of the building shall be increased to 750 feet as the hose lays. This increase shall not be applicable to Groups H and I Occupancies, buildings with occupancies having High-Piled Combustible Storage and high-rise buildings. This increase shall apply to all non-combustible Group S-2 open parking garages meeting the requirements of the 2021 International Building Code, Section 406.3, with or without a sprinkler system.



2. All fire hydrants required as prescribed by Appendix C shall be within 500 feet of a point on the building being protected and said distance is measured per the hose lay criteria in Section 507.5.1.2.

Exception: Where the building is equipped throughout with an approved sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2, or 903.3.1.3, the maximum distance from hydrants to a point on the building shall be increased to 750 feet as the hose lays. This increase shall not be applicable to Groups H and I Occupancies, buildings with occupancies having High-Piled Combustible Storage and high-rise buildings. This increase shall apply to all non-combustible Group S- 2 open parking garages meeting the requirements of the 2021 International Building Code Section 406.3, with or without a sprinkler system.

*SECTION 507.5.1 WHERE REQUIRED is amended by adding SECTION 507.5.1.2 FIRE HYDRANT LOCATION AND SPACIGN to read as follows:*

**507.5.1.2 Fire hydrant location and spacing.** Fire hydrants shall be located and spaced per the following criteria:

1. Hose lay is measured along public streets, fire lanes, and access roadways for Fire Department vehicles. This hose lay consists of 350 feet of supply line as deployed by truck, and 150 feet of hose deployed by hand. Unless otherwise increased in this Code, where the building is equipped throughout with an approved sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2, or 903.3.1.3, the maximum distance from hydrants to a point on the building shall be increased to 750 feet as the hose lays with 550-foot hose lay by the truck and 200-foot hose lay by hand.
2. No fire flow credit is allowed for hydrants which are so obstructed as to make their use impractical, such as, but not limited to, hydrants across main line railroad tracks that are in heavy use or across limited access highway, expressways, primary thoroughfares, across streams, or walls. Hydrants requiring fire apparatus to drive against oncoming traffic to supply water for fire protection and not in the normal direction of travel on one-way streets or highway access roads shall be considered obstructed unless *approved by the fire code official*.
3. Hydrants required by this code along both public and private water mains shall be spaced no closer than 300 feet with spacing between hydrants not to exceed 600 feet. Additional non-required hydrants may be spaced no closer than 200 feet from required hydrants unless *approved by the fire code official*.
4. Fire hydrants shall be located along the public right-of-way or along the Fire Department access roadways, preferably at intersections or on islands separating parking areas which cannot be obstructed by parked vehicles. Hydrants in areas subject to physical damage shall be protected from collision. Fire hydrants across more than four lanes of traffic (including turning lanes) or across medians are not considered accessible.
5. Where existing or proposed fire line(s) and/or existing or proposed fire hydrant(s) are to be used to meet the requirements of this Code and are provided from an adjacent lot, said appurtenances shall be provided with a dedicated water easement. The easement is required to be recorded on the adjacent lot's plat that is proposing the shared access. The adjacent lot's plat is to clearly show the water easement graphically. Recordation by legal instrument alone is not approved by the Fire Marshal.



*SECTION 507.5.3 PRIVATE FIRE SERVICE MAINS AND WATER TANKS is amended by adding SECTION 507.5.3.1 PRIVATE FIRE SERVICE MAIN to read as follows:*

**507.5.3.1 Private fire service main.** Private fire mains as used in this Code are the pipe and its appurtenances on private property between San Antonio Water System, other public water system, or other sources of water and the base elbow of private fire hydrants or the rise for automatic sprinkler or standpipe systems. When connected to a public water system, the private fire main begins at a point designated by the public water utility. When connected to a gravity tank or pressure tank, the private fire main begins at the inlet side of the tank check valve.

*SECTION 507.5.5 CLEAR SPACE AROUND HYDRANTS is amended to read as follows:*

**507.5.5 Clear space around hydrants.** A 3-foot (914 mm) clear space shall be maintained around the circumference of fire hydrants, except as otherwise required or approved. The clear space around hydrant and the access to the hydrant shall be no more than eight percent slope.

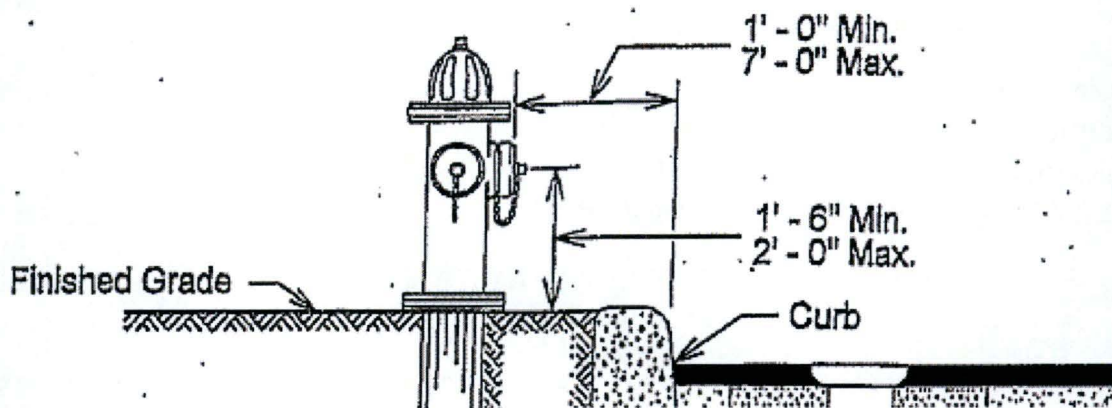
*SECTION 507.5 FIRE HYDRANT SYSTEMS is amended by adding SECTIONS 507.5.7 DESIGN CRITERIA FOR WATER MAINS and 507.5.8 FIRE HYDRANT INSTALLATION CRITERIA to read as follows:*

**507.5.7 Design criteria for water mains.**

1. Where the fire service mains are used to supply required fire hydrants, the mains shall be sized to flow the required fire flow as determined by Section 507.3.
2. Where the fire service mains are used to supply required fire hydrants plus fire sprinkler and/or fire standpipe systems, the mains shall be sized to flow the larger of the fire hydrant flow demand as determined by Section 507.3, the fire sprinkler demand as determined by Section 903.3 or the fire standpipe demand as determined by Section 905.2.
3. The required number of fire hydrants for the fire flow determined by Section 507.3 shall be specified in Appendix C, Table C105.1.
4. When sizing the fire service main, the distribution of the fire flow among the required fire hydrants (as determined by item no. 1 or 2 above) shall be as determined by the Fire Marshal, but in most cases shall have no less than 1,000 gpm at the hydraulically remote fire hydrant with the remaining fire flow equally distributed among the remaining required fire hydrants.
5. Main Size:
  - 5.1. Minimum diameter for public water mains shall be six inches in single-family residential areas and eight inches in all other areas. Larger mains may be required to accommodate fire flow requirements.
  - 5.2. Private fire mains shall be hydraulically calculated.
6. Water pressure in private fire mains shall not be less than thirty-five pounds per square inch (35 psi) with no hydrants in use. When hydrants are in use supplying the required fire flow, water pressure in the main at the fire hydrant discharge level shall be not less than 25 pounds per square inch (25 psi) residual.
7. Except for specific requirements of this code, all hydrants and mains required for private protection shall be designed, constructed, and operated in conformance with the local water purveyor's criteria, specifications and regulations for public fire hydrants and mains on public streets and NFPA 24.

**507.5.8 Fire hydrant installation criteria.** Fire hydrants shall be installed per the following criteria:

1. Fire hydrants shall be a minimum of one foot and a maximum of seven feet from the gutter face of the curb which forms a public way or Fire Lane. Fire hydrants in parking lots adjacent to a Fire Lane or public way shall meet the same requirement for distance and be located on a curbed island or protected by bollards.
2. The steamer (pumper) connection shall be a minimum of one and one-half feet and a maximum of two feet above grade.
3. All private hydrants shall be painted red.
4. Fire hydrants shall be right turn only.
5. The steamer (pumper) connection shall face the street, fire access road or fire lane.
6. The steamer (pumper) connection shall have a nominal inside diameter of 4 inches.
7. Hydrants shall have two other hose connections with a nominal inside diameter of 2.5 inches in addition to the steamer (pumper) connection.
8. Hydrants, public or private, shall be located not less than 40 feet from the building to be protected.



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*SECTION 509.1 IDENTIFICATION is amended to read as follows:*

**509.1 Identification.** Fire protection equipment shall be identified in an approved manner. Rooms containing controls for air-conditioning systems or fire protection systems shall be identified for the use of the fire department. Signs utilizing symbols shall have white reflective symbols on red background per guidelines found in NFPA 170. Signs shall be a minimum size of 4 inches by 6 inches, red background with white lettering with letters a minimum of .05 inch letter stroke. Approved signs required to identify fire protection equipment and equipment location shall be constructed of durable materials, permanently installed and readily visible. For exterior signs, heavy-gauge, sign-grade aluminum shall be used. Interior signs shall be constructed of rigid plastic, light-gauge aluminum or other approved, durable, water-resistant material.



*SECTION 510.1 EMERGENCY RESPONDER COMMUNICATION COVERAGE IN NEW BUILDINGS is amended to read as follows:*

**510.1 Emergency responder communication coverage in new buildings.** Approved in- building, two-way emergency responder communication coverage for emergency responders shall be provided in all new buildings. In building, two way 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. This section shall not require improvement of the existing public safety communication systems.

Exceptions:

1. Where approved by the building code official and the fire code official, a wired communication 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.
3. In facilities where emergency responder radio 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 radio coverage system.

Except as otherwise provided, no person shall erect, construct, modify or cause any building, structure or any part thereof, causing the failure to support adequate radio coverage for City of San Antonio public safety services to include, but not limited to, police, fire, and public works department. A certificate of occupancy may not be issued for any building or structure which fails to comply with this requirement.

**510.1.1 Exemptions.** This section shall not apply to any building less than 50,000 square feet or any building less than four stories with less than 50,000 square feet per floor.

**510.1.2 Failure to comply.** Failure to comply with this code shall be grounds for the Director of Development Services to revoke any previously issued Certificate of Occupancy for the building or structure. A written appeal may be taken to the Building-related and Fire Codes Appeals and Advisory Board regarding the revocation of the Certificate of Occupancy.

*SECTION 510.2 EMERGENCY RESPONDER COMMUNICATION COVERAGE IN EXISTING BUILDINGS is amended to read as follows:*

**510.2 Needs assessment survey.** A needs assessment survey to determine if the installation of an in-building two-way radio enhancement system for in-building emergency responder communications coverage shall be completed based on the criteria set forth in Section 510.1 through 510.5. The needs assessment survey shall not be completed without prior coordination and approval of the radio licensing authority and AHJ, shall be submitted in an acceptable format and shall comply with the following:

1. In addition to the requirements set forth in Section 510.1, a needs assessment survey shall always be conducted for any building with one or more basements or below-grade levels, to include any underground parking facilities and structures.



2. Surveys shall be conducted utilizing industry standard, calibrated test equipment to perform on-site spectrum analysis of radio signal levels. Documentation of equipment calibration shall be provided with the test report package. Each floor should be divided into 20 equal test grids.
3. Measurements should be taken at the center of each test grid or as close to the center as possible.
4. Critical areas must be designated on the floor plan and included in the survey are fire command centers, fire pump rooms, exit stairwells, exit passageways, elevator lobbies, standpipe cabinets, and sprinkler sectional valve locations.
5. For projects where the scope includes the building shell only all exterior finish materials (cladding, brickwork, veneer), all roofing materials, glazing, interior finish materials for the shell stage (drywall, wood paneling, flooring and custom finishes) shall be installed to include weather sealing of all glazing, prior to the site survey being conducted. Additionally, all exterior doors shall be closed.
6. For projects where the scope includes building shell and interior tenant finish out, all of the requirements for shell stage shall apply with the addition of all interior walls, doors and partitions being installed. Where such walls, doors and partitions include glazing, the installation of such glazing shall be complete to include any required sealing. Additionally, any doors specified with seals and / or sweeps shall have said seals and / or sweeps installed prior to the site survey being conducted.
7. For storage occupancy projects that require installation of rack systems for storage of materials and/or products, all survey requirements for shell and finish out stages shall apply and all rack storage equipment shall be installed prior to any survey being conducted.
8. An acceptable survey shall yield a minimum signal strength inbound and outbound of - 95dBm and Delivered Audio Quality (DAQ) of 3.0.
9. Survey results shall be submitted to the *fire code official* for review and approval.
10. A construction permit is required for all emergency responder radio communication coverage system installation.

**510.2.1 Retroactive requirements.** In the event it is determined that installation of an Emergency Responder Radio Coverage System (ERRCS) is required, all existing buildings which meet the criteria set forth by the currently adopted code and local amendments will be granted a three (3) year period to provide an approved in-building, two-way emergency responder communication coverage as required in Chapter 11. The three (3) year period begins upon Owner or Occupant being notified of requirement.

*SECTION 510.4.2.5 SYSTEM MONITORING is amended to read as follows:*

**510.4.2.5 System monitoring.** The in-building, two-way emergency responder communication coverage system shall be monitored by a listed fire alarm control unit, or where approved by the fire code official, shall sound an audible signal at a constantly attended on-site location. Automatic supervisory signals shall include the following:

1. Loss of normal AC power supply.
2. System battery charger(s) failure.
3. Malfunction of the donor antenna(s).



4. Failure of active RF-emitting device(s).
5. Low-battery capacity at 70-percent reduction of operating capacity.
6. Failure of critical system components.
7. The communications link between the fire alarm system and the in-building, two- way emergency responder communication coverage system.
8. Oscillation of active RF-emitting device(s).
9. For buildings equipped with a fire command center, the fire command center shall be equipped with a dedicated annunciator which provides the status of all RF- emitting devices, the location(s) of all active system components and provides visual and labeled indicators for all critical system components to include RF- emitting device(s).

*SECTION 605.4 FUEL OIL STORAGE SYSTEMS is amended 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. Above ground storage tanks and piping for generators shall comply with Chapter 57.

*SECTION 607 COMMERCIAL COOKING OIL STORAGE is repealed.*

*SECTION 901.4 FIRE PROTECTION AND LIFE SAFETY SYSTEMS is amended by adding SECTION 901.4.8 FIRE MAINS to read as follows:*

**901.4.8 Fire Mains.** Fire service mains bedding, backfill/initial backfilling for concrete steel cylinder pipe (CSC), ductile iron pipe (DI), and polyvinyl chloride pipe (PVC) in all nominal diameters shall be composed of sand, well graded crushed stone or gravel conforming to the following requirements unless modified by the engineer:

<u>MODIFIED GRADE 5</u>	<u>PERCENT</u>
<u>Retained on ½" sieve</u>	<u>0%</u>
<u>Retained on 3/8" sieve</u>	<u>0—5%</u>
<u>Retained on No. 4 sieve</u>	<u>20—80%</u>
<u>Retained on No. 10 sieve</u>	<u>75—100%</u>
<u>Retained on No. 20 sieve</u>	<u>98—100%</u>

The backfill shall be installed prior to the inspection with the joints left exposed.

*SECTION 901.5 INSTALLATION ACCEPTANCE TESTING is amended to read as follows:*

**901.5 Installation Acceptance Testing.** Fire protection and life safety 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. A representative of the Fire Marshal shall witness all required acceptance tests for all these systems.

**901.5.1 Occupancy.** It shall be unlawful to occupy any portion of a building or structure until the required fire protection and life safety systems have been tested and approved.

*SECTIONS 901.6.2.1 HIGH-RISE BUILDINGS and 901.6.2.2 SMOKE CONTROL SYSTEMS are amended to read as follows:*

**901.6.2.1 High-rise buildings.** For high-rise buildings, an integrated testing plan shall comply with NFPA 4 be approved by the fire code official, with an integrated test performed prior to issuance of the certificate of occupancy and at intervals not exceeding 10 years, unless otherwise specified by an integrated system test plan prepared in accordance with NFPA 4 approved by the fire code official. If an equipment failure is detected during integrated testing, a repeat of the integrated test shall not be required, except as necessary to verify operation of fire protection or life safety functions that are initiated by equipment that was repaired or replaced.

**901.6.2.2 Smoke control systems.** Where a fire alarm system is integrated with a smoke control system as outlined in Section 909, an integrated testing plan shall be approved by the fire code official comply with NFPA 4, with an integrated test performed prior to issuance of the certificate of occupancy and at intervals not exceeding 10 years, unless otherwise specified by an integrated system test plan prepared in accordance with NFPA 4 approved by the fire code official. If an equipment failure is detected during integrated testing, a repeat of the integrated test shall not be required, except as necessary to verify operation of fire protection or life safety functions that are initiated by equipment that was repaired or replaced.

*SECTION 901 GENERAL is amended by adding SECTION 901.6.4 MAINTENANCE AGREEMENT to read as follows:*

**901.6.4 Maintenance Agreement.** A maintenance agreement, as defined by Section 202, with a licensed fire protection company shall be provided to the Fire Marshal for each fire protection system at all times. Proof of a maintenance agreement shall be provided during any system acceptance test. Agreements for testing and inspection only as defined by Section 202 shall not be credited with having met this requirement.

*SECTION 901.7 SYSTEMS OUT OF SERVICE is amended to read as follows:*

**901.7 Systems out of service.** Where a required fire protection system is out of service, 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 shutdown until the fire protection system has been returned to service.

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

**Exception:** Facilities with an approved notification and impairment management program. The notification and impairment program for water-based fire protection systems shall comply with NFPA 25.

A fire watch will be performed at all times that a system is taken out of service. Except for emergencies, the fire code official shall be given 72 hours' notice before a system is voluntarily taken out of service. When, at the discretion of the Fire Chief or his designee, there is a life safety issue, uniformed employees of the San Antonio Fire Department or other fire watch personnel as approved by the Fire Chief or his designee shall perform a fire watch. Fire watch personnel shall be provided with at least one approved means for notification to the fire department dispatch and their sole duty shall be to perform constant patrols and watch for safety hazards and occurrences of fire. The cost of the fire watch shall be at the current overtime rate for fire inspections and shall be the sole responsibility of the owner/contractor to pay. The fire watch fee shall be paid to the City of San Antonio before final approval is granted on system work.

*SECTION 903.1 GENERAL is amended by adding SECTION 903.1.2 SAFETY FACTOR to read as follows:*

**903.1.2 Safety factor.** Automatic sprinkler systems shall be designed with a minimum safety factor of 5 PSI or 10% of required pressure (whichever is greater) taken at the source for the hydraulically most demanding design area.

*SECTION 903.2 WHERE REQUIRED is amended to read as follows:*

**903.2 Where required.** Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12 903.2.13. Where existing open buildings and structures are modified such that they are no longer open on at least three sides and open to a minimum of 50% of the perimeter of the area covered, fire sprinkler systems shall be installed for these change-in occupancies in accordance with the applicable requirements in this section. In order to be considered "open" for the purpose of this requirement, an open side shall be at least 50% open with the open area uniformly distributed to prevent the accumulation of smoke and toxic gases.

**Exception:** Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided that those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour fire barriers constructed in accordance with Section 707 of the International Building Code or not less than 2-hour horizontal assemblies constructed in accordance with Section 711 of the International Building Code, or both.

*SECTION 903.2.1 GROUP A is amended to read as follows:*

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

Exception: A one-story detached open pavilion consisting of a only a roof and supporting columns that meets all of the following criteria shall not require fire sprinklers.

1. The detached open pavilion is a Group A2, Group A3 or Group A4 Occupancy.
2. The detached open pavilion shall be less than 12,000 ft <sup>2</sup> in area.
3. The detached open pavilion shall be separated from adjacent structures by minimum of 30 feet.
4. The detached open pavilion is open on at least three sides and open a minimum of 50% of the perimeter of the area covered. In order to be considered "open" for the purpose of this exception, an open side shall be at least 50% open with the open area uniformly distributed to prevent the accumulation of smoke and toxic gases.
5. The detached open pavilion shall have a minimum of 300% of the total number of required exits and a minimum of 300% of total exit minimum width or required capacity based upon the occupant load of the pavilion.

*SECTION 903.2.1.3 GROUP A-3 is amended to read as follows:*

**903.2.1.3 Group A-3.** An automatic sprinkler system shall be provided throughout stories containing Group A-3 occupancies and throughout all stories from the Group A-3 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

1. The fire area exceeds 12,000 square feet (1115 m <sup>2</sup>).
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.
4. Any Group A-3 occupancy that serves alcohol shall comply with the fire sprinkler requirements for Group A-2 Occupancies in section 903.2.1.2.

*SECTION 903.2.6 GROUP I is amended to read as follows:*

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

Exceptions:

1. An automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be permitted in Group I-1, Condition 1 facilities.



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

*SECTION 903.2.8 GROUP R is amended to read as follows:*

**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.

Exception: FOSTER CARE FAMILY HOME as defined in Section 202 General Definitions.

*SECTION 903.2.11.1.1 OPENING DIMENSIONS AND ACCESS is repealed and replaced with SECTION 903.2.1.1.1 OPENING DIMENSIONS AND ACCESS to read as follows:*

**903.2.11.1.1 Opening dimensions and access.** Openings shall have a minimum dimension of not less than 30 inches (762 mm). Such openings shall be accessible to the fire department from the exterior and shall not be obstructed in a manner that firefighting or rescue cannot be accomplished from the exterior. Openings shall have a finished sill height of no more than 44 inches above the finished floor level of the story which the opening is serving.

*SECTION 903.2 WHERE REQUIRED is amended by adding SECTION 903.2.13 PORTE COCHERES to read as follows:*

**903.2.13 Porte-cocheres.** All porte-cocheres shall be protected with fire sprinklers.

Exceptions: Porte-cocheres of non-combustible construction under 1000 square feet.

*SECTION 903.3.1.1.1 EXEMPT LOCATIONS is amended to read follows:*

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

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the fire code official.
3. Generator and transformer rooms 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. Rooms or areas that are of noncombustible construction with wholly noncombustible contents.
5. Fire service access elevator machine rooms and machinery spaces.
6. Machine rooms and machinery spaces associated with occupant evacuation elevators designed in accordance with Section 3008 of the International Building Code.
7. Equipment storage areas of fire stations where sprinklers are considered undesirable because of the nature of the contents, including firefighting apparatus and specialized equipment, when approved by the fire code official.

*SECTION 903.3.1.02.3 ATTICS is amended to read as follows:*

**903.3.1.2.3 Attics.** Attic protection shall be provided as follows:

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. Where located in a building of Type III, Type IV or Type V construction designed in accordance with Section 510.2 or 510.4 of the International Building Code, attics not required by Item 1 to have sprinklers shall comply with one of the following if the roof assembly is located more than 55 feet (16 764 mm) above the lowest level of fire department vehicle access needed to meet the provisions in Section 503:
  - 3.1 Provide automatic sprinkler system protection.
  - 3.2 Construct the attic using noncombustible materials.
  - 3.3 Construct the attic using fire-retardant-treated wood complying with Section 2303.2 of the International Building Code.
  - ~~3.4 Fill the attic with noncombustible insulation.~~

The height of the roof assembly shall be determined by measuring the distance from the lowest required fire vehicle access road surface adjacent to the building to the eave of the highest pitched roof, the intersection of the highest roof to the exterior wall, or the top of the highest parapet, whichever yields the greatest distance. For the purpose of this measurement, required fire vehicle access roads shall include only those roads that are necessary for compliance with Section 503.
4. Group R-4, Condition 2 occupancy attics not required by Item 1 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.~~



*SECTION 903 AUTOMATIC SPRINKLER SYSTEMS is amended to add SECTION 903.1.2.4. ELEVATOR MACHINE ROOM, to read as follows:*

**903.3.1.2.4 Elevator machine room.** In all R occupancies or occupancies using a 13R system with elevator systems, the elevator machine room shall be sprinklered ~~as per~~ NFPA 13 standards.

*SECTION 903.4 SPRINKLER SYSTEM SUPERVISION AND ALARMS is amended to read as follows:*

**903.4 Sprinkler system supervision and alarms.** Valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and waterflow switches on all sprinkler systems shall be electrically supervised by a listed fire alarm control unit.

Exceptions:

1. Automatic sprinkler systems protecting one-and two-family dwellings.
2. Limited area sprinkle systems in accordance with Section 903.3.8.
3. Automatic sprinkler systems installed in accordance with NFPA 13R where a common supply main is used to supply both domestic water and the automatic sprinkler system, and a separate shutoff valve for the automatic sprinkler system is not provided.
4. Jockey pump control valves that are sealed or locked in the open position.
5. Control valves to commercial kitchen hoods, paint spray booths or dip tanks that are sealed or locked in the open position.
6. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
7. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are sealed or locked in the open position.
8. Underground key or hub gate valves in roadway boxes.
9. Valves located outside buildings or in a vault that are sealed or locked in the open position.

*SECTION 903 AUTOMATIC SPRINKLER SYSTEMS is amended by adding SECTION 903.7 SEPARATION FROM NON- SPRINKLERED AREAS to read as follows:*

**903.7 Separation from non-sprinklered areas.** Unless otherwise exempted by the 2021 International Building Code (IBC) or 2021 International Fire Code (IFC), or required to be of a higher fire resistive construction by the IBC or IFC, a minimum of one hour fire barrier constructed in accordance with the 2021 International Building Code shall be between sprinklered and non-sprinklered areas within a building.

*SECTION 904.2.2 COMMERCIAL HOOD AND DUCT SYSTEMS is amended by adding SECTION 904.2.2.1 PERMIT REQUIRED to read as follows:*

**904.2.2.1 Permit required.** Prior to installation, a licensed contractor shall obtain a permit for automatic fixed pipe extinguishing system from the Fire Marshal's office. At the time a permit request is made, a diagram detailing exactly what will be installed at the "permit site" shall be submitted for Fire Department review and files. The diagram shall include:

1. Approximate length of pipe and elbows
2. Distance of nozzles from grill area
3. Exact size, type and number of nozzles
4. Number and location of fusible links
5. Size of cooking surface area, hood, and vent area
6. Location of manual pull
7. Location of automatic gas or electric shut-off, electric shut-off is to be a total shut-off
8. The location of the automatic extinguishing system in the room and distance of exits must be shown

The installation is not complete until all automatic electric or gas shutoffs are installed. Permittee is responsible for the total installation. The permittee shall call Fire Prevention for a final inspection after the system is completed. The fire inspector shall require an operations test of the system be performed on the final inspection. Agent discharge shall not be required if: (a) Installer certifies in writing that system has been designed and installed in accordance with manufacturers specifications, and (b) an air discharge test is performed.

*SECTION 905.1 GENERAL is amended by adding SECTION 905.1.1 SAFETY FACTOR to read as follows:*

**905.1.1 Safety factor.** All standpipe systems with the exception of manual standpipes shall be designed with a minimum safety factor of 5 PSI or 10% of required pressure (whichever is greater) taken at the source for the hydraulically most demanding system and/or outlet.

*SECTION 905.2 INSTALLATION STANDARD is amended by adding SECTION 905.2.1 CLASS-I REDUCER to read as follows:*

**905.2.1 Class-I reducer.** A 2.5-inch by 1.5-inch reducer shall be provided on Class-I standpipe connections with caps and chains.

*SECTION 905.4 LOCATION OF CLASS I STANDPIPE HOSE CONNECTIONS is amended to read as follows:*

**905.4 Location of Class I standpipe hose connections.** Class I standpipe hose connections shall be provided in all of the following locations:

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 ~~the main~~ an intermediate floor landing between stories unless otherwise approved by the fire code official.

**Exception:** A single hose connection shall be permitted to be installed in the open corridor or open breezeway between open stairs that are not greater than 75 feet (22 860 mm) apart.



2. On each side of the wall adjacent to the exit opening of a horizontal exit.  
**Exception:** Where floor areas adjacent to a horizontal exit are reachable from an interior exit stairway hose connection by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the horizontal exit.
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 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the entrance from the exit passageway to other areas of the building.
4. In covered mall buildings, adjacent to each exterior public entrance to the mall and adjacent to each entrance from an exit passageway or exit corridor to the mall. In open mall buildings, adjacent to each public entrance to the mall at the perimeter line and adjacent to each entrance from an exit passageway or exit corridor to the mall.
5. Where the roof has a slope less than 4 units vertical in 12 units horizontal (33.3- percent slope), a hose connection shall be located to serve the roof or at the highest landing of an interior exit stairway with access to the roof provided in accordance with Section 1011.12.
6. Where the most remote portion of a nonsprinklered floor or story is more than 150 feet (45 720 mm) from a hose connection or the most remote portion of a sprinklered floor or story is more than 200 feet (60 960 mm) from a hose connection, the fire code official is authorized to require that additional hose connections be provided in approved locations.

*SECTION 906.2 GENERAL REQUIREMENTS is amended by adding SECTION 906.2.2 TRAVEL DISTANCE to read as follows:*

**906.2.2 Travel distance.** Travel distance is calculated from a point in the occupancy to the location of fire extinguisher located on the same floor level in accordance with the maximum distances listed in Table 906.3(1) or Table 906.3(2).

Travel distance is calculated per floor when determining travel distance to a fire extinguisher in multi-story buildings.

*SECTION 906 PORTABLE FIRE EXTINGUISHERS is amended by adding SECTION 906.5.1 CONSPICUOUS LOCATIONS IN GROUP R OCCUPANCIES to read as follows:*

**906.5.1 Conspicuous locations in group R occupancies.** In addition to other areas listed herein or in NFPA10, fire extinguishers in R occupancies may also be placed in any of the following locations to satisfy the requirements:

1. On a wall in the unit;
2. Inside a closet, cabinet or pantry;
3. Inside a mechanical closet; or
4. Inside a storage closet with no locking device on the door that would require a key or combination to open it.

If methods 2, 3, or 4 are utilized, the following must be done prior to or at the time of move-in:

1. A label or notice must be placed on the door to indicate there is a fire extinguisher inside the area;  
or

2. A notice disclosing the location of the fire extinguisher must be provided to the occupant.

*SECTION 906 PORTABLE FIRE EXTINGUISHERS is amended by adding SECTION 906.11 INSPECTIONS OF NON-RECHARGEABLE FIRE EXTINGUISHERS IN GROUP R OCCUPANCIES to read as follows:*

**906.11 Inspections of non-rechargeable fire extinguishers in R occupancies.** As an alternative to required fire extinguisher annual inspections conducted by licensed and certified personnel, the owner or management company, their employees or agents are authorized to inspect non-rechargeable fire extinguishers located in R occupancies on an annual basis to ensure that:

1. The extinguisher's service life is not beyond the manufacturer's recommended warranty date;
2. Pin has not been removed;
3. The indicator gauge is in the green or good position;
4. Installed in the proper location per section 906.5;
5. No obvious physical damage, corrosion, or nozzle blockage is present; and
6. The operating instructions are present and legible;

The owner or owner's agent shall repair or replace a fire extinguisher if any of the deficiencies noted in items 1-6 above are discovered on inspection.

While inspecting the non-rechargeable fire extinguishers, the inspection personnel shall cause the contents of the non-rechargeable fire extinguishers to be stirred by turning the fire extinguishers upside down at least two times.

In lieu of placing tags or labels on non-rechargeable fire extinguishers to verify inspection, a log or inspection sheet may be maintained indicating compliance with all the requirements above.

*SECTION 907.1.2 FIRE ALARM SHOP DRAWINGS is repealed and replaced with SECTION 907.1.2 FIRE ALARM SHOP DRAWINGS to read as follows:*

**907.1.2 Fire alarm shop drawings.** Shop drawings for fire alarm systems shall be submitted for review and approval prior to system installation, and shall include, but not be limited to, all of the following where applicable to the system being installed:

1. A floor plan that indicates the use of all rooms.
2. Locations of alarm-initiating devices.
3. Locations of alarm notification appliances, including candela ratings for visible alarm notification appliances and tap values for speakers when installed.
4. Design minimum audibility level for occupant notification
5. Location of fire alarm control unit, transponders and notification power supplies.
6. Annunciators.
7. Power connections.
8. Battery calculations. Calculations shall be completed in accordance with NFPA 72, Section 10.5.6.3.1 and 10.5.6.3.2.



9. Conductor type and sizes.
10. Voltage drop calculations. Calculations shall be completed using a maximum starting voltage of 20.4 volts for 24-volt systems and 10.2 volts for 12-volt systems.
11. Manufacturers' data sheets indicating model numbers and listing information for equipment, devices and materials.
12. Details of ceiling height and construction.
13. The interface of fire safety control functions.
14. Classification of the supervising station.
15. For in-building emergency voice alarm communication systems and mass notification systems, speaker circuit load calculations providing a total dB loss at the end of each speaker circuit.
16. Acoustically distinguishable space classifications and designations in accordance with 2019 Edition NFPA 72, Chapter 18 indicated on the floor plans in each applicable area with a designation and classification legend provided in tabular form.
17. When utilizing acoustic modeling software to determine acoustically distinguishable spaces, include reports from the modeling software with the submittal package.
18. For aspirating smoke detection systems, full transport time calculations shall be provided with the submittal package.
19. For aspirating smoke detection systems, a dimensioned plan view and dimensioned isometric view of the protected area shall be provided with the submittal package.
20. For fire alarm control unit replacement projects, to include those with minor modifications to the existing system, that do not include the addition of initiating or signaling devices, with the exception of off premise communicators, a detailed fire alarm riser diagram that provides circuits and specific locations of all control equipment, annunciation equipment, power supplies, initiating and signaling devices shall be provided in the submittal package. Additionally, standby battery calculations for the new fire alarm control unit only, a scope of work narrative signed by the registered design professional in responsible charge or licensed planner, and a manufacturer's equipment data sheet for the new fire alarm control unit shall be provided in the submittal package. If a floor plan that reflects the configuration of the existing system is available, it shall be permitted to be submitted in lieu of the detailed riser diagram.

*SECTION 907.1 GENERAL is amended by adding SECTION 907.1.4 TESTING OF FIRE ALARM SYSTEMS to read as follows:*

**907.1.4 Testing of Fire Alarm Systems.** The following are required at the time of fire alarm acceptance testing unless approved by the Fire Marshal or his/her designee:

1. The written statement required by 2019 NFPA 72, Section 7.2.1
2. A copy of the Record of Completion as required by 2019 NFPA 72, Section 7.2.1
3. A copy of the Texas Department of Insurance Fire Alarm Installation Certificate
4. Approved plans bearing the original stamp and signature of the fire alarm plan reviewer

5. Original permit is on site.
6. Fire Review Activity form (plan review comments) if provided.
7. Proof of current licensing of the technician performing the tests.
8. Written approvals from the AHJ if partial installation inspections are requested by the contractor or technician.
9. Site specific software for software-based systems.
10. Written sequence of operation.
11. All testing equipment necessary to conduct the test (i.e., decibel meter, flashlight, intelligibility meter, etc.)

*SECTION 907.2.1.2 EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM CAPTIONS is repealed.*

*SECTION 907.2.3 GROUP E is amended 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 all newly constructed Group E ~~occupancies~~ occupancy campus complexes. Where automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

**Exceptions:**

1. A manual fire alarm system shall not be required in Group E occupancies with an occupant load of 50 or less.
2. Emergency voice/alarm communication systems meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall not be required in Group E occupancies with occupant loads of 100 or less, provided that activation of the manual fire alarm system initiates an approved occupant notification signal in accordance with Section 907.5.
3. Manual fire alarm boxes are not required in Group E occupancies where all of the following apply:
  - 3.1. Interior corridors are protected by smoke detectors.
  - 3.2. Auditoriums, cafeterias, gymnasiums, and similar areas are protected by heat detectors or other approved detection devices.
  - 3.3. Shops and laboratories involving dusts or vapors are protected by heat detectors or other approved detection devices.
  - 3.4. Manual activation is provided from a normally occupied location.
4. Manual fire alarm boxes shall not be required in Group E occupancies where all of the following apply:
  - 4.1. The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.



- 4.2. The emergency voice/alarm communication system will activate on sprinkler water flow.
- 4.3. Manual activation is provided from a normally occupied location.

*SECTION 907.2.7.1 OCCUPANT NOTIFICATION is repealed.*

*SECTION 907.2.8.2 AUTOMATIC SMOKE DETECTION SYSTEM is amended to read as follows:*

**907.2.8.2 Automatic smoke detection system.** An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.5 shall be installed throughout all interior corridors serving sleeping units. The automatic smoke detection system requirement is met only by the installation of smoke or beam detectors whenever possible. If environmental conditions do not allow the installation of smoke detectors, fire alarm heat detectors may be used on a limited basis when approved by the fire code official.

Exception: An automatic smoke detection system is not required in buildings that do not have interior corridors serving sleeping units and where each sleeping unit has a means of egress door opening directly to an exit or to an exterior exit access that leads directly to an exit.

*SECTION 907.2.13.1.2 DUCT SMOKE DETECTION is repealed and replaced with SECTION 907.2.13.1.2 DUCT SMOKE DETECTION to read as follows:*

**907.2.13.1.2 Duct smoke detection.** Duct smoke detectors complying with Section 907.3.1 shall be located in accordance with the National Fire Protection Association standard NFPA 90A: Standard for the Installation of Air-Conditioning and Ventilating Systems or as follows:

1. In the main return air and exhaust air plenum of each air-conditioning system having a capacity greater than 2,000 cubic feet per minute (cfm) (0.94 m<sup>3</sup>/s). Such detectors shall be located in a serviceable area downstream of the last duct inlet.
2. At each connection to a vertical duct or riser serving two or more stories from a return air duct or plenum of an air-conditioning system. In Group R-1 and R-2 occupancies, a smoke detector is allowed to be used in each return air riser carrying not more than 5,000 cubic feet per minute (cfm) (2.4 m<sup>3</sup>/s) and serving not more than 10 air-inlet openings.

*SECTION 907.2.13.2 FIRE DEPARTMENT COMMUNICATION SYSTEM is repealed.*

*SECTION 907, FIRE ALARM AND DETECTIONS SYSTEMS is amended by adding SECTION 907.2.24 FIRE ALARM SYSTEMS FOR PROPERTY PROTECTION to read as follows:*

**907.2.24 Fire alarm systems for property protection.** Fire alarm systems dedicated solely to the protection of property are permitted to be installed in facilities where a fire alarm system is not required by other sections of this code or the International Building Code provided the following conditions are met:

1. Any and all automatic detection is installed, located and maintained in accordance with the requirements of NFPA 72 and a documentation cabinet as required by NFPA 72 is provided and installed.

2. The installed system is monitored by a supervising station which provides remote, proprietary or central station service.
3. One manual means of activation is installed in an *approved* location
4. Where the fire alarm system control unit is located in an area that is not readily accessible to response personnel, a remote fire alarm system annunciator panel is installed.

*SECTION 907.3.1 DUCT SMOKE DETECTORS is repealed and replaced by SECTION 907.3.1 DUCT SMOKE DETECTORS to read as follows:*

**907.3.1 Duct smoke detectors.** Smoke detectors installed in ducts shall be *listed* for the air velocity, temperature and humidity present in the duct. Duct smoke detectors shall be connected to the building's fire alarm control unit when a fire alarm system is required by Section 907.2. Activation of a duct smoke detector shall initiate a visible and audible supervisory signal at a constantly attended location and shall perform the intended fire safety function in accordance with this code, *NFPA 90A: Standard for the Installation of Air- Conditioning and Ventilating Systems* and the *International Mechanical Code* . In facilities that are required to be monitored by a supervising station, duct smoke detectors shall report only a supervisory signal and not as a fire alarm. They shall not be used as a substitute for required open area detection.

Exceptions:

1. In occupancies not required to be equipped with a fire alarm system, actuation of a smoke detector shall activate a visible and an audible signal in an approved location. Smoke detector trouble conditions shall activate a visible or audible signal in an approved location and shall be identified as air duct detector trouble.
2. For fire alarm systems which cannot be programmed for supervisory signals, duct detectors shall be allowed to activate the alarm signal.

*SECTION 907, FIRE ALARM AND DETECTIONS SYSTEMS is amended by adding SECTION 907.3.5 FIRE ALARM SYSTEMS - EMERGENCY CONTROL to read as follows:*

**907.3.5 Fire alarm systems - Emergency Control.** At a minimum, the following functions, where provided, shall be activated by the fire alarm system:

1. Elevator capture and control, in accordance with ASME/ANSI A17.1-2019, Safety Code for Elevators and Escalators.
2. Release of automatic door closures and hold open devices.
3. Stairwell and/or elevator shaft pressurization.
4. Smoke management and/or smoke control systems.
5. Initiation of automatic fire extinguishing equipment.
6. Emergency lighting control.



7. Unlocking of doors.
8. Emergency shutoff of gas and fuel supplies that may be hazardous provided the continuation of service is not essential to the preservation of life.
9. Emergency shutoff of audio systems for sound reinforcement or entertainment (i.e. music systems, systems for announcement and broadcast which are separate from public address systems) provided that such systems are not used to issue emergency instructions.
10. Emergency shutoff of systems used for the creation of displays or special effects (i.e. lighting effects, laser light shows, projection equipment)

*SECTION 907.4.2.1 LOCATION is amended to read as follows:*

**907.4.2.1 Location.** Manual fire alarm boxes shall be located not more than 5 feet (1524 mm) from the entrance to each exit. In buildings not protected by an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, additional manual fire alarm boxes shall be located so that the distance of travel to the nearest box does not exceed 200 feet (60 960 mm).

Exception: Where construction of the building prohibits the proper installation of a manual fire alarm box (e.g., glass walls, interior brick or rock walls), a manual fire alarm box shall be allowed to be located in the normal path of egress, where approved by the Fire Marshal or his/her designee.

*SECTION 907.5.1.1 PRESIGNAL FEATURE is repealed and is replaced by SECTION 907.5.1.1 PRESIGNAL FEATURES AND POSITIVE ALARM SEQUENCES to read as follows:*

**907.5.1.1 Presignal features and positive alarm sequences.** A presignal feature or Positive Alarm Sequence as defined in NFPA 72 shall not be installed unless approved by the fire code official and the fire department. Request to use a Presignal feature or a Positive Alarm Sequence must be submitted in writing to the Fire Marshal and approval granted before installation. Where a Presignal feature or Positive Alarm Sequence is provided, a signal shall be annunciated at a constantly attended location approved by the fire code official, so that occupant notification can be activated in the event of fire or other emergency. When approved by the fire code official, the Presignal feature or Positive Alarm Sequence shall be implemented in accordance with the requirements of NFPA 72.

*SECTION 907.5.2.1 AUDIBLE ALARMS is amended by adding SECTIONS 907.5.2.1.4 TESTING OF AUDIBLE ALARMS IN OCCUPANCIES OTHER THAN GROUP R and 907.5.2.1.5 TESTING OF AUDIBLE ALARMS IN GROUP R OCCUPANCIES to read as follows:*

**907.5.2.1.4 Testing of audible alarms in occupancies other than Group R.** Audibility levels for all occupancies other than Group R shall be in accordance with the public mode requirements of NFPA 72, and shall be tested utilizing the following criteria:

1. A sound pressure level meter, which has been calibrated within the last calendar year, and supplied by the fire alarm system installing contractor, shall be utilized to obtain readings. The sound pressure level meter will be held five feet above floor, pointed in the direction of the audible device.
2. All doors within the occupancy, including bathroom doors and balconies, shall be in the closed position.

3. Measurements shall be taken in the most remote areas of the occupancy first, including bathrooms and balconies.
4. Initial measurements to confirm the average ambient sound level in each area shall be taken.
5. The fire alarm system shall be activated and measurements in the tested areas shall be retaken and compared with the requirements.

**907.5.2.1.5 Testing of audible alarms in Group R occupancies.** Audibility levels for all Group R occupancies shall be in accordance with the requirements of Section 907.5.2.1.1, and shall be tested utilizing the following criteria:

1. A sound pressure level meter, which has been calibrated within the last calendar year, and supplied by the fire alarm system installing contractor, shall be utilized to obtain readings. The audiometer will be held five feet above floor, pointed in the direction of the audible device.
2. All doors within the occupancy, including the bathroom and balcony doors shall be in the closed position.
3. Ambient sound level shall be established with the television set at 50 percent of maximum volume, showers running, bathroom exhaust systems running, and air conditioning units running.
4. Levels shall be taken in the most remote area of the dwelling or sleeping unit first, including bathrooms and balconies.
5. Initial readings to confirm the ambient sound level in each area shall be taken.
6. The fire alarm system shall be activated and readings in the tested areas shall be retaken and compared with the requirements.

*SECTION 907.5.2.2, EMERGENCY VOICE/ALARM COMMUNICATION SYSTEMS, is amended to read as follows:*

**907.5.2.2 Emergency voice/alarm communication systems.** Emergency voice/alarm communication systems required by this code shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector, sprinkler waterflow device or manual fire alarm box shall automatically sound an alert tone followed by voice instructions giving approved information and directions for a general or staged evacuation in accordance with the building's fire safety and evacuation plans required by Section 404 of the International Fire Code. In high-rise buildings, the system shall operate on at least a minimum of the alarming floor, the floor above and the floor below. If the system is not reset after five minutes, the building shall sound the general evacuation signal and message in all zones unless an alternative Positive Alarm Sequence has been approved by the Fire Marshal. Speakers shall be provided throughout the building by paging zones. At a minimum, paging zones shall be provided as follows:

1. Elevator groups.
2. Interior exit stairways.
3. Each floor.
4. Areas of refuge as defined in Chapter 2.

Exception: In Group I-1 and I-2 occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.



*SECTION 907.5.2.2.4 EMERGENCY VOICE/ALARM COMMUNICATION CAPTIONS is repealed.*

*SECTION 907.2.3.1 PUBLIC USE AREAS AND COMMON USE AREAS is amended to read as follows:*

**907.5.2.3.1. Public use areas and common use areas.** Visible alarm notification appliances shall be provided in public use areas and common use areas as defined in Chapter 2.

Exceptions:

1. Where employee work areas have audible alarm coverage, the notification appliance circuits serving the employee work areas shall be initially designed with not less than 20-percent spare capacity to account for the potential of adding visible notification appliances in the future to accommodate hearing- impaired employee(s). For the purpose of this code, cold storage areas (e.g., walk-in coolers and freezers), mechanical and/or electrical rooms, main distribution and intermediate distribution frame (MDF/IDF) rooms are considered employee work areas.
2. Visible notification appliances are not required in storage rooms or closets with an area of less than one hundred (100) square feet (9.29 square meters), except for clean or soiled utility and clean or soiled linen rooms in Institutional Group I occupancies. NOTE: this exception does not apply to requirements set forth by entities other than the City of San Antonio (e.g., Texas Department of Licensing and Regulation enforcing the requirements of the Texas Accessibility Standards, Texas Department of State Health Services enforcing licensing of health care facilities in the State of Texas, or the Joint Commission, formerly the Joint Commission on Accreditation of Healthcare Organizations).

*SECTION 907.5.2.3.3.1 WIRED EQUIPMENT is amended to read as follows:*

**907.5.2.3.3.1 Wired equipment.** Where wired equipment is used to comply with the future capability required by Section 907.5.2.3.3, the system shall include one of the following capabilities:

1. The replacement of audible appliances with combination audible/visible appliances or additional visible notification appliances.
2. The future extension of the existing wiring from the unit smoke alarm locations to required locations for visible appliances.
3. For wired equipment, the fire alarm power supply and circuits shall have not less than 5-percent excess capacity to accommodate the future addition of visible alarm notification appliances, and a single access point to such circuits shall be available on every story. Such circuits shall not be required to be extended beyond a single access point on a story. The fire alarm system shop drawings required by Section 907.1.2 shall include the power supply and circuit documentation to accommodate the future addition of visible notification appliances.
4. Extension of the fire alarm wiring to all living areas, restrooms, and sleeping areas of all dwelling units. The wiring must terminate in an electrical box suitable for securely mounting an audible/visible appliance. The fire alarm system shop drawings required by Section 907.1.2 shall include the power supply and circuit documentation to accommodate the extension of the wiring.



5. Where 200 percent of the visual alarms required in Table 907.5.2.3.2 for Groups I-1 and R-1 occupancies are provided in selected dwelling units, the selection of the dwelling units to be so equipped shall be at the discretion of the facility owner. Any dwelling units required to be equipped with audible/visual appliances to provide accessibility in accordance with Department of Housing and Urban Development rules, Americans with Disabilities Act Accessibility Guidelines or Texas Accessibility Standards are permitted to be included in the 200 percent total. The use of this exception requires the facility owner to sign and return the notarized SAFD Form 6007 (Letter of Understanding), which may be obtained from Development Services or the San Antonio Fire Department Office of the Fire Marshal.

*SECTION 907.5.2.3.4 GROUP R-2 SLEEPING AREAS is added to read as follows:*

**907.5.2.3.4 Group R-2 sleeping areas.** Living rooms in Group R-2 Occupancies shall have audible notification appliances that meet the sleeping area audible requirements of 2019 NFPA 72, Chapter 18, Section 18.4.5, Subsection 18.4.5.1 When such units are required to be equipped with visible notification for the hearing impaired or when such units are designated as accessible in accordance with ICC/ANSI A117.1 combination audible and visible notification appliances that meet both the sleeping area audible requirements of NFPA 72, Chapter 18, Section 18.4.5 Subsection 18.4.5.1 and the effective intensity settings of NFPA 72, Chapter 18.5.5.1 shall be installed.

*SECTION 907.5.2.3.5 COMBINATION DEVICES is added to read as follows:*

**907.5.2.3.5 Combination devices.** Combination 120 VAC single or multiple-station smoke detectors with an onboard visible notification appliance if utilized to meet the requirements of Section 907.2.11, will not be given credit for meeting the visible alarm notification requirements of Section 907.5.2.3.3 if these devices do not have the capability of supplying backup power for the visible notification appliance portion of the device. Should such devices be utilized to comply with Section 907.2.11, the visible appliance side of the device shall flash in synchronization with the notification appliances required in the unit.

*SECTION 907.6.3 INITIATING DEVICE IDENTIFICATION is amended to read as follows:*

**907.6.3 Initiating device identification.** The fire alarm system shall identify the specific initiating device, address, location, device type, floor level where applicable and status including indication of normal, alarm, trouble and supervisory status, to the fire alarm panel, annunciator panel and to the supervising station, as appropriate.

**Exceptions:**

1. Fire alarm systems in single-story buildings less than 22,500 square feet (2090 m<sup>2</sup>) in area.
2. Fire alarm systems that only include manual fire alarm boxes, waterflow initiating devices and not more than 10 additional alarm-initiating devices.
3. Special initiating devices that do not support individual device identification.
4. Fire alarm systems or devices that are replacing existing equipment.

*SECTION 907 FIRE ALARM AND DETECTION SYSTEMS is amended by adding SECTION 907. 11 ALARM SIGNAL SILENCING SWITCH to read as follows:*

**907.11 Alarm signal silencing switch.** A switch for silencing the alarm signal sounding appliances shall be permitted only if it is key operated, located within a locked cabinet, or requires special knowledge. Such a switch shall be permitted only if visible zone alarm indication or equivalent has been



provided by approved annunciation, printout, or other approved means, and subsequent alarms on other initiating devices circuits will cause the audible alarm signaling appliances to resound. A switch that is left in the "silence" position when there is no alarm shall operate trouble signals until the switch is restored to normal.

*SECTION 908.3 FIRE ALARM SYSTEM INTERFACE is amended to read as follows:*

**908.3 Fire alarm system interface.** Where an emergency alarm system is provided, it shall be interfaced with the building's fire alarm system, and the signal produced at the fire alarm control unit shall be a supervisory signal.

*SECTION 912.2.1 VISIBLE LOCATION is amended to read as follows:*

**912.2.1 Visible location.** Fire department connections shall be located on the street side of buildings or facing approved fire apparatus access roads, fully visible and recognizable from the street, fire apparatus access road or nearest point of fire department vehicle access or as otherwise approved by the fire code official. The fire department connection shall be identified by a sign installed above the connection with the letters "FDC" not less than 6 inches high and mounted no lower than 7 feet from grade to the bottom edge of the sign unless approved by the fire code official.

*SECTION 912.2.1 EXISTING BUILDINGS is amended as follows:*

**912.2.1 Existing buildings.** On existing buildings, wherever the fire department connection is not visible to approaching fire apparatus, the fire department connection shall be indicated by an approved sign mounted on the street front or on the side of the building. Such sign shall have the letters "FDC" not less than 6 inches (152 mm) high, ~~and~~ words in letters not less than 2 inches (51 mm) high or an arrow to indicate the location: and mounted no lower than 7 feet from grade to the bottom edge of the sign. Such signs shall be subject to the approval of the fire code official.

*SECTION 912.4.1 LOCKING FIRE DEPARTMENT CONNECTION CAPS is repealed and replaced with SECTION 912.4.1 LOCKING FIRE DEPARTMENT CONNECTION CAPS to read as follows:*

**912.4.1 Locking fire department connection caps.** FDC shall have locking caps in the following areas/occupancies: The area described in section 11-37 of these amendments, Group A, E, I occupancies, High-Rise buildings, and any other location a fire code official determines that a locking cap would be necessary and/or beneficial for firefighting needs.

*SECTION 912 FIRE DEPARTMENT CONNECTIONS is amended by adding SECTION 912.8 LOCATION AND TYPE and TABLE 912.8 to read as follows:*

**912.8 Location and type.** Sprinkler system and standpipe fire department hose connections shall be as follows:

1. Within forty (40) feet of a public street, approved fire lane, or access roadway;

2. Within 250 feet of an approved fire hydrant measured per hose lay criteria in Section 507.5.1.2, except for R-2 Apartments in which the fire department connection shall be within 500 feet of an approved fire hydrant measured per hose lay criteria in Section 507.5.1.2;
3. Minimum of two feet above finished grade and a maximum of four feet above finished grade for standard inlets and minimum of 30 inches at lowest point above finished grade and maximum of four feet above finished grade for the five inch "Storz" inlet;
4. Freestanding FDCs shall be installed a minimum of one foot, and a maximum of seven feet, from the gutter face of the curb.
5. The Fire Code Official shall approve the location of freestanding fire department connections. Freestanding FDCs must be physically protected against impact per the requirements of Section 312 or other *approved* means.
6. Where provided, the five inch "Storz" inlet shall be installed at a 30-degree angle pointing down;
7. Fire department connections for H occupancies shall be freestanding, remote and located as determined by the *fire code official*;
8. Fire department connections for systems protecting fuel storage tanks shall be freestanding, remote and located as determined by the *fire code official*; and
9. See Table 912.8 – FDCs Required, by System Type

**Table 912.8**  
**FDCs Required, by System Type**

<u>Sprinkler Systems</u> <u>Wet</u> <u>Dry</u>	<u>Either a 5 Inch</u> <u>Storz inlet or</u> <u>(2)2 ½ Inch</u> <u>inlets</u>		
<u>Standpipes:</u> <u>Automatic Wet</u> <u>Automatic Dry</u> <u>Semiautomatic</u> <u>Dry</u>		<u>Either a</u> <u>5-inch Storz</u> <u>inlet or</u> <u>(2)2 ½ inch</u> <u>inlets</u>	
<u>Standpipes:</u> <u>Manual Wet</u> <u>Manual Dry</u>			<u>A 5-inch Storz inlet for the first 1000 gallons system</u> <u>demand and an additional 2 ½ inlet for every 250-</u> <u>gallon demand or portion thereof</u>



<u>Standpipes:</u>  <u>All High-Rise</u>  <u>Buildings</u>			<u>Two fire department connections shall be provided for each zone, located either on opposite corners of the building where fire department apparatus access is provided or, where not possible, physically separated to the greatest extent possible for the following:</u>  <ol style="list-style-type: none"> <li>1. <u>High-rise buildings and/or</u></li> <li>2. <u>Buildings or multiple attached buildings exceeding 900 ft (274.3 m) perimeter distance</u></li> </ol> <u>In accordance with 2019 NFPA 14 7.12.2.2</u>
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There shall be no more than one Storz connection in any configuration \*One (1) 2.5-inch inlet is required for all systems designed per NFPA 13R. If the system demand is greater than 250 GPM, two (2) 2.5-inch inlets are required to be installed. No FDC is required for projects designed per NFPA 13D.

*SECTION 1003 GENERAL MEANS OF EGRESS is amended by adding SECTION 1003.8 SPECIAL PROVISIONS to read as follows:*

**1003.8 Special provisions.** Rooms in E occupancies used for kindergarten or daycare, children five or under, classified as an E occupancy shall not be located above or below the first story.

Exceptions:

1. Basements or stories having floor levels located within four feet, measured vertically, from adjacent ground level at the level of exit discharge, provided the basement or story has exterior exit doors at that level.
2. In buildings equipped with an automatic sprinkler system throughout, rooms used for kindergarten or for daycare purposes may be located on the second story, provided there are at least two exterior exit doors for the exclusive use of such occupancies.

*SECTION [BE]1004.5 AREAS WITHOUT FIXED SEATING is amended to read as follows:*

**1004.5 Areas without fixed seating.** The number of occupants shall be computed at the rate of one occupant per unit of area as prescribed in Table 1004.5. For areas without *fixed seating*, the *occupant load* shall not be less than that number determined by dividing the floor area under consideration by the *occupant load* factor assigned to the function of the space as set forth in Table 1004.5. Where an intended function is not listed in Table 1004.5, the ~~fire-code-official~~ Building Official shall establish a function based on a listed use that most nearly resembles the intended function. When the calculated number is not a whole number, it is required to round up to the next whole number for determination of the *occupant load* of a space.

**Exception:** Where *approved* by the ~~fire-code-official~~ Building Official, the actual number of occupants for whom each occupied space, floor or building is designed, although less than those determined by calculation, shall be permitted to be used in the determination of the design *occupant load*.

*SECTION [B]1008.3 EMERGENCY POWER FOR ILLUMINATION is amended by adding SECTION 1008.3.6 ILLUMINATION IN GROUP E to read as follows:*

**1008.3.6 Illumination in Group E.** Group E occupancies shall have emergency lighting in interior stairs, corridors, windowless areas with student occupancy, shops, and laboratories.

*SECTION 1009, ACCESSIBLE MEANS OF EGRESS is repealed and replaced with a new SECTION 1009 to read as follows:*

**1009 ACCESSIBLE MEANS OF EGRESS**

All buildings or portions of buildings must comply with the accessibility standards adopted by the State. Projects shall be submitted to the Texas Department of Licensing and Regulation for review, inspection and approval in accordance with state law.

*SECTION 1025 LUMINOUS EGRESS PATH MARKINGS is adopted and amended by adding an additional exception to read as follows:*

**[BE] 1025.1 General.** *Approved* luminous egress path markings delineating the exit path shall be provided in high-rise buildings of Group A, B, E, I-1, M or R-1 occupancies in accordance with this section.

Exceptions:

1. Luminous egress path markings shall not be required on the level of exit discharge in lobbies that serve as part of the exit path in accordance with Section 1028.2, Exception 1.
2. Luminous egress path markings shall not be required where integral battery backup lighting is installed within an interior exit stairway and is capable of indicating a failure and relaying that notification to a supervised system.

*SECTIONS 1103.4.2 THREE TO FIVE STORIES, 1103.4.4 ATRIUMS AND COVERED MALLS, 1103.4.5 ESCALATORS IN GROUP B AND M OCCUPANCIES, AND 1103.4.6 ESCALATORS CONNECTING FOUR OR FEWER STORIES are repealed.*

*SECTION 1103.5.1 GROUP A-2 is amended to read as follows:*

**1103.5.1 Group A-2.** Where alcoholic beverages are consumed in a Group A-2 occupancy identified as a Night Club as defined by this code and having an occupant load of 300 or more, the fire area containing the Group A-2 occupancy shall be equipped with an automatic sprinkler system in accordance with Section 903.3.1.1. Occupancies shall have 5 years from the date of the adoption of this [the 2018 IFC and local amendments adoption date] October 1, 2018 to comply with the fire sprinkler installation requirements.

*SECTION 1103.7.5.1 Group R-1 HOTEL AND MOTEL MANUAL FIRE ALARM SYSTEM is repealed and replaced with 1103.7.5.1 GROUP R-1 HOTEL AND MOTEL MANUAL FIRE ALARM SYSTEM to read as follows:*

**1103.7.5.1 Group R-1 hotel and motel manual fire alarm system.** A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in existing Group R-1 hotels and motels more than three stories or with more than 20 sleeping units.



**Exceptions:**

1. Buildings less than two stories in height where all sleeping units, attics and crawl spaces are separated by a 1-hour fire-resistance-rated construction and each sleeping unit has direct access to a public way, egress court or yard.
2. Manual fire alarm boxes are not required throughout the building where the following conditions are met:
  - 2.1. The building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.
  - 2.2. The notification appliances will activate upon sprinkler water flow.
  - 2.3. Not less than one manual fire alarm box installed at an approved location.

*SECTION 1103.7.6 GROUP R-2 is repealed and replaced with 1103.7.6 GROUP R-2 to read as follows:*

**1103.7.6 Group R-2.** A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in existing Group R-2 occupancies if the dwelling units or sleeping units are served by an interior corridor and the building is either more than three stories in height or contains more than 16 dwelling or sleeping units. Group R-2 occupancies shall have until October 1, 2023 to comply with the manual fire alarm system retrofit requirements.

**Exceptions:**

1. Where each living unit is separated from other contiguous living units by fire barriers having a fire-resistance rating of not less than .75 hour, and where each living unit has either:
  - 1.1. Its own independent exit or its own independent stairway or ramp discharging at grade;
  - 1.2. Its own independent exit directly to the exterior of the building that is connected to an exterior balcony with a stairway or ramp discharging at grade; or
  - 1.3. Its own independent egress directly to the exterior of the building at grade.
2. A separate fire alarm system is not required in buildings that are equipped throughout with an approved supervised automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.
3. Where the interior corridor serves less than 5 units in a building that is two stories or less and is equipped with sealed battery or electric smoke alarms installed on the ceiling at the highest point of the interior corridor, interconnected with smoke alarm (s) located somewhere in the sleeping or dwelling units served by the corridor, and the corridor shall be equipped with emergency lighting. Occupancies utilizing this exception must register with the San Antonio Fire Department Office of the Fire Marshal for an inspection when installation is complete.

*SECTION 1103.8 SINGLE AND MULTIPLE-STATION SMOKE ALARMS is amended to read as follows:*

**1103.8 Single- and multiple-station smoke alarms.** Single- and multiple-station smoke alarms shall be installed in existing Group I-1 and R occupancies in accordance with Sections 1103.8.1 through 1103.8.3.

Exception: All R3 occupancies not used for commercial purposes, including duplexes and houses for rent.

*SECTION 1103.8.1 WHERE REQUIRED is repealed and replaced with SECTION 110308.1 WHERE REQUIRED to read as follows:*

**1103.8.1 Where required.** Existing Group I-1 and R occupancies shall be provided with single-station smoke alarms in accordance with Section 907.2.11, except as provided in Section 1103.8.2 and 1103.8.3.

Exception: Where smoke detectors connected to a fire alarm system have been installed as a substitute for smoke alarms if installed in all sleeping areas as prescribed in 907.2.11.

*SECTION 1103.8.2 INTERCONNECTION is repealed and replaced with SECTION 1103.8.2 INTERCONNECTION to read as follows:*

**1103.8.2 Interconnection.** Where more than one smoke alarm is required to be installed within an individual dwelling or sleeping unit, the smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

Exceptions:

1. Interconnection is not required in buildings that are not undergoing alterations.
2. Smoke alarms in existing areas are not required to be interconnected where alterations do not result in the removal of interior wall or ceiling finishes exposes the structure.

*SECTION 1103.8.3 POWER SOURCE is amended to read as follows:*

**1103.8.3 Power source.** Single-station smoke alarms shall receive their primary power from the building wiring provided that such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms with integral strobes that are not equipped with battery backup shall be connected to an emergency electrical system. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

Exceptions:

1. Smoke alarms are permitted to be solely battery operated in existing buildings where construction is not taking place.
2. Smoke alarms are permitted to be solely battery operated in buildings that are not served from a commercial power source.
3. Smoke alarms are permitted to be solely battery operated in existing areas of buildings undergoing alterations or repairs that do not result in the removal of interior walls or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available that could provide access for building wiring without the removal of interior finishes.
4. In all R-2 occupancies, smoke alarms are permitted to be solely battery operated if added to comply with Section 1103.8.



5. In all R-2 occupancies, smoke alarms are permitted to be operated solely from the building wiring if installed prior to ~~the adoption date of this code~~ October 1, 2018.

*SECTION 1103.9 CARBON MONOXIDE DETECTION is amended to read as follows:*

**1103.9 Carbon monoxide detection in other than R-2 occupancies.** Carbon monoxide detection shall be installed in existing ~~Group I-1, I-2, I-4 and R occupancies and in classrooms in Group E occupancies~~ dwelling units and sleeping units where those units include any of the conditions identified in Sections 915.1.2 through 915.1.6. The carbon monoxide alarms shall be installed in the locations specified in Section 915.2 and the installation shall be in accordance with Section 915.4.

Exceptions:

1. Carbon monoxide alarms are permitted to be solely battery operated where the code that was in effect at the time of construction did not require carbon monoxide detectors to be provided.
2. Carbon monoxide alarms are permitted to be solely battery operated in dwelling units that are not served from a commercial power source.
3. A carbon monoxide detection system in accordance with Section 915.5 shall be an acceptable alternative to carbon monoxide alarms.

SECTION 1103.9.1 CARBON MONOXIDE ALARMS IN EXISTING R-2 OCCUPANCIES is added to read as follows:

**1103.9.1 Carbon monoxide alarms in existing R-2 occupancies.** Carbon monoxide alarms shall be installed in all existing Group R-2 dwelling units and sleeping units where any of the following conditions apply:

1. If the code that was in effect at the time of construction required carbon monoxide detectors to be provided;
2. Dwelling units and sleeping units located in buildings that contain fuel-burning appliances servicing multiple dwelling units or sleeping units;

Dwelling units and sleeping units shall have 1 year from ~~the date of adoption of this code~~ October 1, 2018 to comply with the Carbon Monoxide Alarms retrofit requirements.

Installation:

If the code that was in effect at the time of construction required carbon monoxide alarms to be provided, they shall be installed in accordance with that code.

If the code that was in effect at the time of construction did not require carbon monoxide alarms to be provided, carbon monoxide alarms are permitted to be solely battery operated or plugged into an existing electrical plug. Carbon monoxide alarms are permitted to be solely battery operated in dwelling units that are not served from a commercial power source. Carbon monoxide alarms are permitted to be a combination of smoke and carbon monoxide alarms.

Exceptions:

1. A carbon monoxide detection system in accordance with Section 915.5 shall be an acceptable alternative to carbon monoxide alarms.
2. Carbon monoxide detection shall not be required in individual dwelling units or sleeping units where an electric or sealed battery carbon monoxide alarm is provided in the room(s) containing the fuel-burning appliance serving multiple dwelling units or sleeping units and the unit(s) immediately adjacent to the room containing the fuel-burning appliance serving multiple dwelling units or sleeping units.

*SECTION 1104.1 GENERAL is repealed and replaced with SECTION 1104.1 GENERAL to read as follows:*

**1104.1 General.** Means of egress in existing buildings shall comply with the minimum egress requirements when specified in Table 1103.1 as further enumerated in Sections 1104.2 through 1104.25, or the building code that applied at the time of construction, if in the opinion of the fire code official, they do not constitute a distinct hazard to life. Existing buildings that were not required to comply with a building code at the time of construction shall comply with the minimum egress requirements when specified in Table 1103.1 as further enumerated in Sections 1104.2 through 1104.25 and, in addition, shall have a life safety evaluation prepared, consistent with the requirements of Section 403.2.10 and 403.2.11. The life safety evaluation shall identify any changes to the means of egress that are necessary to provide safe egress to occupants and shall be subject to review and approval by the fire code official. The building shall be modified to comply with the recommendations as set forth in the approved evaluation.

*SECTION 1104.5 ILLUMINATION EMERGENCY POWER, SUBSECTION 8. is amended to read as follows:*

8. Group R-2 in interior stairs and corridors only.

**Exception:** Where each dwelling unit or sleeping unit has direct access to the outside of the building at grade.

*SECTION [BR] 1104.16.2 OPENING PROTECTIVES is repealed.*

*SECTION 1104.16 FIRE ESCAPE STAIRWAYS is amended by adding SECTION 1104.16.8 EXTERIOR FIRE ESCAPES to read as follows:*

**1104.16.8 Exterior Fire Escapes.** Any existing exterior fire escape which is deemed to be an adequate fire escape under the laws of the State or under the provisions of the City fire prevention regulations shall be deemed an adequate means of egress for emergency use as required by this chapter and the number of existing exterior fire escapes shall be provided to comply with the fire escape law of the State and the City fire prevention regulations.

*TABLE 1104.18 COMMON PATH, DEAD-END AND TRAVEL DISTANCE LIMITS (by occupancy) is amended by altering the number of "Dead-End Limit" Sprinklered (feet) chart for the following occupancy groups listed:*

**TABLE 1104.18**

COMMON PATH, DEAD-END AND TRAVEL DISTANCE LIMITS (by occupancy)

	<u>COMMON PATH LIMIT</u>	<u>DEAD-END LIMIT</u>	<u>TRAVEL DISTANCE LIMIT</u>
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<u>OCCUPANCY</u>	<u>Unsprinklered</u> <u>(feet)</u>	<u>Sprinklered</u> <u>(feet)</u>	<u>Unsprinklered</u> <u>(feet)</u>	<u>Sprinklered</u> <u>(feet)</u>	<u>Unsprinklered</u> <u>(feet)</u>	<u>Sprinklered</u> <u>(feet)</u>
<u>Group A</u>	<u>20/75</u> <sup>a</sup>	<u>20/75</u> <sup>a</sup>	<u>20</u> <sup>b</sup>	<u>20</u> <sup>b</sup>	<u>200</u>	<u>250</u>
<u>Group B</u> <sup>h</sup>	<u>75</u>	<u>100</u>	<u>50</u>	<u>70</u>	<u>200</u>	<u>300</u>
<u>Group E</u>	<u>75</u>	<u>75</u>	<u>20</u>	<u>70</u>	<u>200</u>	<u>250</u>
<u>Group F-1d, S-1</u> <sup>d, h</sup>	<u>75</u>	<u>100</u>	<u>50</u>	<u>70</u>	<u>200</u>	<u>250</u>
<u>Group F-2d, S-2</u> <sup>d, h</sup>	<u>75</u>	<u>100</u>	<u>50</u>	<u>70</u>	<u>300</u>	<u>400</u>
<u>Group H-1</u>	<u>25</u>	<u>25</u>	<u>0</u>	<u>0</u>	<u>75</u>	<u>75</u>
<u>Group H-2</u>	<u>50</u>	<u>100</u>	<u>0</u>	<u>0</u>	<u>75</u>	<u>100</u>
<u>Group H-3</u>	<u>50</u>	<u>100</u>	<u>20</u>	<u>20</u>	<u>100</u>	<u>150</u>
<u>Group H-4</u>	<u>75</u>	<u>75</u>	<u>20</u>	<u>20</u>	<u>150</u>	<u>175</u>
<u>Group H-5</u>	<u>75</u>	<u>75</u>	<u>20</u>	<u>50</u>	<u>150</u>	<u>200</u>
<u>Group I-1</u>	<u>75</u>	<u>75</u>	<u>20</u>	<u>70</u>	<u>200</u>	<u>250</u>
<u>Group I-2</u>	<u>Notes e,g</u>	<u>Notes e, g</u>	<u>Note f</u>	<u>Note f</u>	<u>150</u>	<u>200</u> <sup>c</sup>
<u>Group I-3</u>	<u>100</u>	<u>100</u>	<u>NR</u>	<u>NR</u>	<u>150</u> <sup>c</sup>	<u>200</u> <sup>c</sup>
<u>Group I-4 (Day</u> <u>care centers)</u>	<u>NR</u>	<u>NR</u>	<u>20</u>	<u>20</u>	<u>200</u>	<u>250</u>
<u>Group M (Covered</u> <u>Or Open Mall)</u>	<u>75</u>	<u>100</u>	<u>50</u>	<u>70</u>	<u>200</u>	<u>400</u>

<u>Group M</u> <u>(Mercantile)</u>	<u>75</u>	<u>100</u>	<u>50</u>	<u>70</u>	<u>200</u>	<u>250</u>
<u>Group R-1 (Hotels)</u>	<u>75</u>	<u>75</u>	<u>50</u>	<u>70</u>	<u>200</u>	<u>250</u>

<u>Group R-2</u> <u>(Apartments)</u>	<u>75</u>	<u>125</u>	<u>50</u>	<u>70</u>	<u>200</u>	<u>250</u>
<u>Group R-3 (One-</u> <u>and two-family)</u>	<u>NR</u>	<u>NR</u>	<u>NR</u>	<u>NR</u>	<u>NR</u>	<u>NR</u>
<u>Group R-4</u> <u>(Residential</u> <u>care/assisted</u> <u>living)</u>	<u>NR</u>	<u>NR</u>	<u>NR</u>	<u>NR</u>	<u>NR</u>	<u>NR</u>
<u>Group U<sup>h</sup></u>	<u>75</u>	<u>100</u>	<u>20</u>	<u>70</u>	<u>300</u>	<u>400</u>

*SECTION 1104.22 EXTERIOR STAIRWAY PROTECTION is repealed.*

*SECTION 1104.25 EGRESS PATH MARKINGS is repealed.*

*SECTION 1203.1 GENERAL is amended by adding SECTIONS 1203.1.10 NATURAL GAS GENERATORS and 1203.1.11 DIESEL FUELED GENERATORS FUEL TANK VENTING to read as follows:*

**1203.1.10 Natural gas generators.** Natural gas generators shall be allowed to be used as an emergency or standby power source for emergency life safety equipment only when all of the following conditions are met:

1. The natural gas line supplying the generator must have a separate shutoff that is not affected by turning off the supply line to the building.
2. The shutoff for the natural gas line supplying the generator must have a sign at the shutoff that reads: "EMERGENCY GENERATOR GAS LINE, SHUT DOWN THIS LINE ONLY FOR EMERGENCIES INVOLVING EMERGENCY GENERATOR"
3. The generator must be a minimum of 10 feet from any building opening.
4. The installation of all natural gas generators shall be required to meet the provisions of the currently adopted *International Plumbing Code* and *National Electrical Code*.

**1203.1.11 Diesel fueled generator fuel tank venting.** Fuel tanks associated with diesel fueled generators shall be vented in accordance with Section 5704.2.7.3.3

*SECTION 1204.10 FIRE EXTINGUISHER is amended to read as follows:*

**1204.10 Fire extinguisher.** A listed portable fire extinguisher complying with Section 906 with a minimum rating of ~~2-A:20-B:C~~ 3-A:40-B:C shall be provided not more than ~~50-(15-240-mm)~~ 30 feet from the portable generator.



*SECTION 2301 GENERAL is amended by adding SECTIONS 2301.7 PORTABLE SERVICE STATIONS and 2301.8 FLAME DETECTION SYSTEMS to read as follows:*

**2301.7 Portable Service Stations.**

1. No person shall own, operate or maintain a tank used for the storage of flammable liquids maintained on skids or a similar type stand which is designed or intended to be used for dispensing flammable liquids into the fuel tanks of motor vehicles owned by the public.
2. The foregoing provisions of this article are intended to prohibit the use of so-called portable service station or similar units constructed to dispense flammable liquids to the motoring public and designed so that the unit can be easily picked up and moved.

**2301.8 Flame detection systems.** Fuel dispensing areas inside and outside of buildings that fuel vehicles fueled by gases including, but not limited to LPG, LNG, CNG or Hydrogen shall provide a flame detection system that complies with approved standards. The flame detection system shall be designed to detect flame of gaseous fuels that are being dispensed.

*SECTION 2303.2 EMERGENCY DISCONNECT SWITCHES. is repealed and replaced with SECTION 2303.2 EMERGENCY DISCONNECT SWITCHES to read as follows:*

**2303.2 Emergency disconnect switches.** An approved, clearly identified and readily accessible emergency disconnect switch shall be provided at an approved location to stop the transfer of fuel to the fuel dispensers in the event of a fuel spill or other emergency. An emergency disconnect switch for exterior fuel dispensers shall be located within 100 feet (30 480 mm) of, but not less than 20 feet (6096 mm) from, the fuel dispensers. For interior fuel-dispensing operations, the emergency disconnect switch shall be installed at an approved location. Such devices shall be distinctly labeled as: EMERGENCY FUEL SHUTOFF. Signs shall be provided in approved locations and be a minimum of 18 inches high and 24 inches wide.

*SECTION 2303.2.2 ADDITIONAL EMERGENCY DISCONNECT SWITCHES FOR ATTENDED SELF SERVICE is added to read as follows:*

**2303.2.2 Additional emergency disconnect for attended self service.** Attended facilities shall have an additional emergency disconnect switch located inside the building for attendant use at a location approved by the fire code official.

*SECTION 2306.2.1.1 INVENTORY CONTROL FOR UNDERGROUND TANKS is repealed and replaced with SECTION 2306.2.1.1 INVENTORY CONTROL FOR UNDERGROUND TANKS to read as follows:*

**2306.2.1.1 Inventory control for underground tanks.**

Accurate daily (normal working days only) inventory records shall be maintained and reconciled on all Class I, II or III-A liquid storage tanks for indication of possible leakage from tanks or piping. The records shall be made available for inspection by the Fire Marshal, and shall include, as a minimum, records showing by product: daily reconciliation between sales, use, receipts, and inventory on hand. If there is more than one system consisting of a tank(s), serving pump(s), or dispenser(s) for any product, the reconciliation shall be made separately for each tank system.



1. Daily inventory shall be maintained for each tank system at each location by the operator. The inventory records shall be kept for the past 12 months at the premises.
2. Inventory shall be based on the actual daily measurement and recording daily recording of actual sales, or by readout from an automated gauging system. The inventory records shall include a daily compilation of gain or loss. The mere recording of pump meter reading and product delivery receipts shall not constitute adequate inventory records.
3. The operator of the location shall be held responsible for notifying the owner or person(s) in control of the facility to take action to correct any abnormal loss or gain not explainable by spillage, temperature variations or both causes.
4. The Fire Marshal may require the operator of an underground tank storage system to test the system for tightness, at the operator's expense, when accurate daily inventory records have not been maintained as required or when in his judgment conditions indicate possible leakage of product from the location of such tanks.
5. The Fire Marshal may require copies of Class I, II and III-A liquid storage tank inventories, deliveries or receipt of product sales and dip gauge stick readings or other control measures in addition to copies of any tank tightness or line leakage test results from the station operator, agent, or terminal management.
6. When a service station tank is found to be leaking, its contents shall be removed immediately. If any investigations or tests indicate the source of such loss, the owner shall take immediate action to correct the system failure and remove dangerous spillage from the environment.
7. The Fire Marshal may order the closure of a Service Station by barricading if necessary and the emptying of contents from storage tanks should the operator of a service station be unwilling to cooperate with the Fire Department during the search for the source of such leakage or should the Fire Marshal determine that a hazardous condition exists that merits such action.

*SECTION 2306.2.3 ABOVE-GROUND TANKS LOCATED OUTDOORS, ABOVE GRADE is amended by adding SECTIONS 2306.2.3.1 INSPECTIONS, 2306.2.3.2 REQUIRED ACCESS, and 2306.2.3.3 FIRE HYDRANT ACCESS to read as follows:*

**2306.2.3.1 Inspections.** An inspection of the installation shall be conducted prior to loading the tank with fuel. For those installations approved by the Fire Chief or his designee to dispense class 1 liquids, the initial loading of fuel shall be witnessed by the fire inspector.

**2306.2.3.2 Required access.** Fire apparatus access roads shall be provided for every aboveground storage tank. The aboveground storage tank shall not be more than 150 feet from fire apparatus access roads as measured by an approved route.

**2306.2.3.3 Fire hydrant access.** A minimum of one fire hydrant shall be provided for every aboveground storage tank. The aboveground storage tank shall not be located more than 500 feet from a fire hydrant as measured by an approved route. The distance may be extended to 850 feet for tanks constructed to the design criteria of UL 2085. A minimum of two fire hydrants meeting the distance requirements per table C102.1 shall be required for storage tank farms exceeding an aggregate capacity of 48,000 gallons of Class I, II, and IIIA liquid fuels. Fire flow requirements for storage tank farms and refineries shall be determined by a licensed Fire Protection Engineer and shall have a minimum flow of 2000 gallons per minute.



*SECTION 2307 LIQUIFIED PETROLEUM GAS MOTOR FUEL DISPENSING FACILITIES is repealed.*

*SECTION 2311.8.9 GAS DETECTION SYSTEM is amended to read as follows:*

**2311.8.9 Gas detection system.** Repair garages used for repair of vehicles fueled by ~~nonodorized~~ gases, including, but not limited to, hydrogen, CNG, and ~~nonodorized~~ LNG, shall be provided with a gas detection system that complies with Section 916. The gas detection system shall be designed to detect leakage of ~~nonodorized~~ gaseous fuel. Where lubrication or chassis service pits are provided in garages used for repairing ~~nonodorized~~ LNG-fueled vehicles, gas sensors shall be provided in such pits.

*SECTION 2809 EXTERIOR STORAGE OF FINISHED LUMBER AND SOLID BIOFUEL PRODUCTS is amended by adding SECTION 2809.6 LUMBER STORAGE OTHER THAN COMMERCIAL LUMBER DEALERS to read as follows:*

**2809.6 Lumber storage other than commercial lumber dealers.** It shall be unlawful for any person within the City limits to place, pile, or cause to be placed or piled, any lumber or timber to a greater height than six feet at the topmost portion from ground level. Storage of lumber in such instances must allow at least an 18-inch space from ground level to bottom of the lumber pile. Such pile must be at least three feet from any adjoining property line and total pile area shall not exceed 100 square feet. Any lumber stored or kept upon, or in, any premises in the City must be piled in a neat and orderly manner free from rubbish or other waste materials. Nothing in this section shall apply to storage of lumber by commercial lumber dealers.

*SECTION 3103.2 APPROVAL REQUIRED is repealed and replaced with SECTION 3103.2 APPROVAL REQUIRED to read as follows:*

**3103.2 Approval required.** Tents and membrane structures used for assembly purposes having an occupant load over 50, and all other occupancies having an area in excess of 1200 square feet shall not be erected, operated or maintained for any purpose without first obtaining a permit and approval from the fire code official.

*SECTION 3103.4 PERMITS is repealed and replaced with SECTION 3103.4 PERMITS to read as follows:*

**3103.4 Permits.** Permit to operate a tent or air supported structure shall consist of a Certificate of Occupancy issued by Development Services.

*SECTION 3301 GENERAL is amended by adding SECTION 3301.3 ADDRESS NUMBERS to read as follows:*

**3301.3 Address numbers.** Buildings under construction shall place address numbers and/or building numbers in a position that is plainly legible and visible from the street or road fronting the property with minimum six-inch numbers.

*SECTION 3315 AUTOMATIC SPRINKLER SYSTEM is amended by adding SECTION 3315.3 FURNITURE, FIXTURES, AND EQUIPMENT to read as follows:*

**3315.3 Furniture, fixtures, and equipment.** In buildings where an automatic sprinkler system is required, furniture, fixtures, and equipment shall not be stored in the building until the system has been tested and approved by the fire code official and monitoring of system is active.

Exception: As approved by the fire code official.

*CHAPTER 37 COMBUSTIBLE FIBERS is amended by adding Section 3706 CONSTRUCTION AND PROTECTION REQUIREMENTS to read as follows:*

**3706 Construction and protection requirements.**

1. Handling and storage of large quantities of waste paper, rags, or other combustible materials shall not be allowed in a building of any type in excess of 1500 square feet area unless the building is protected with an approved automatic sprinkler system.
2. Handling and storage building for waste paper, rags or other combustible materials shall not exceed one story in height unless of Type I construction and fully protected with approved automatic sprinkler system.
3. No loose waste paper, rags, trash or rubbish of any kind, or similar combustible materials shall be allowed on the premises on the outside of any building.
4. Bales, waste paper, rags, and other combustibles in baled lots shall be stored in buildings. Said buildings shall be required to have aisles when 25,000 cubic feet or more of such materials are stored. Baled materials, if stored outside of buildings, shall not be stored within 25 feet of any building. EXCEPTION: Baled materials may be stored within 25 feet of a building's outside wall when a wall sprinkler curtain is provided on the building.

*CHAPTER 41 AUTOMOBILE WRECKING YARDS is added to read as follows:*

CHAPTER     41  
AUTOMOBILE   WRECKING  
YARDS

**4101 Automobile dismantling and storage.** Nothing but automobile dismantling shall be carried on in any automobile wrecking yard or establishment, and if repairs are made to any automobile or other self-propelled vehicle, such repairs shall be made in a building meeting all the requirements of a public automobile garage or automobile repair shop and in keeping with the regulations for such occupancy.

All gasoline shall be drained from the gasoline reservoirs of all automobiles or other self-propelled vehicles stored or kept on the premises, unless such automobiles or vehicles are in such state of repair as to enable them to be removed from the premises under their own power.

*CHAPTER 42 entitled PROTECTION OF OUTDOOR STORAGE is added to read as follows:*

CHAPTER 42 PROTECTION OF OUTDOOR STORAGE  
4201 GENERAL



**4201.1** The hazards of exposure to outdoor storage from ignition sources and exposing fires and the infinite variety of conditions under which such exposures can occur render impossible the formulation of any single table, formula, or set of rules that can cover all conditions adequately.

**4202.2** In general, the provision of automatic fire protection is impractical for outdoor storage. As a result, the following is required:

1. Control of potential ignition sources such as from exposing buildings, transformers, yard equipment, refuse burners, overhead power lines, and vandals;
2. Elimination of adverse factors such as trash accumulations, weeds, and brush;
3. Provision of favorable physical conditions such as limited pile sizes, low storage heights, wide aisles, and possible use of fire-retardant covers (e.g., tarpaulins);
4. Rapid and effective application of manual fire-fighting efforts by the provision of fire alarms, strategically located hydrants, and adequate hose houses or hose reels.

**4201.3** Outdoor storage is acceptable for materials that are as follows:

1. Of low fire hazard, not requiring protection even if located indoors
2. Of sufficiently low value that a potential loss would not justify the utilization of building space
3. Of such severe fire hazard that indoor protection is impractical when balanced against potential loss of large volume and bulk, making it impractical to construct and protect a building to house the storage.

**4201.4** Where materials that normally would be stored in buildings are stored outdoors in temporary emergencies, special precautions shall be taken for their safeguard and that they be moved to a storage warehouse as soon as possible.

#### 4202 Responsibilities of Management

**4202.1** It is the responsibility of management to properly consider the hazards of the various materials handled. Protection requirements and storage arrangements vary with the combustibility of the materials. The care, cleanliness, and maintenance exercised by management determine to a large extent the relative fire safety in the storage area.

#### 4203 Site

**4203.1** In selecting a site for outdoor storage, the following requirements shall be followed:

1. Adequate public water system with hydrants suitably located for protection of the storage.
2. Adequate all-weather roads for fire department apparatus response.
3. Sufficient clear space from buildings or from other combustible storage that constitutes an exposure hazard.
4. Absence of flood hazards.
5. Adequate clearance space between storage piles and any highways, bridges, railroads, and woodlands.
6. Topography as level as possible to provide storage stability.
7. Adequate clearance between the storage of combustible materials and pipelines, pipe bridges, cable trays and electrical transmission lines.

**4203.2** The entire site shall be surrounded by a fence or other suitable means to prevent unauthorized access. An adequate number of gates shall be provided in the surrounding fence or other barriers to permit ready access of fire apparatus.

#### 4204 Material Piling

**4204.1** Materials shall be stored in unit piles as low in height and small in area as is consistent with good practice for the materials stored. The maximum height shall be determined by the stability of pile, effective reach of hose streams, combustibility of the commodity, and ease of pile breakdown under fire or mop-up conditions. Under no circumstances shall the pile size dimensions exceed 50 feet by 150 feet by 20 feet high unless the specific commodities maximum dimensions are listed elsewhere in the code.

**4204.2** Aisles shall be maintained between individual piles, between piles and buildings, and between piles and the boundary line of the storage site. Sufficient driveways having the width of at least 20 ft shall be provided to allow the travel of fire equipment to all portions of the storage area. Aisles shall be at least twice the pile height to reduce the spread of fire from pile to pile and to allow ready access for firefighting, emergency removal of material, or salvage purposes.

**4204.3** As the commodity class increases in combustibility or where storage could be ignited easily from radiation, wider aisles shall be provided. Smaller unit piles could be an alternative to wider aisles if yard space is limited.

**4204.4** Boundary posts with signs designating piling limits shall be provided to indicate yard area, roadway, and aisle limits.

#### 4205 Buildings and Other Structures

**4205.1** Yard storage, particularly storage of commodities in the higher heat release category, shall have as much separation as is practical from important buildings and structures, but not less than that offered by NFPA 80A, Recommended Practice for Protection of Buildings from Exterior Fire Exposures.

**4205.2** As guidance in using NFPA 80A to establish clear spaces, the following classification of severity with commodity classes of this standard shall be used on the basis of 100 percent openings representing yard storage:

1. Light severity—Commodity Class I
2. Moderate severity—Commodity Class II
3. Interpolate between moderate and severe severity for Commodity Class III
4. Severe severity—Commodity Class IV and Class A plastics

The guidelines of Section 4205.2 apply to the equivalent commodity classes of this standard. The severity of the exposing building or structure also shall be a consideration where establishing a clear space.

#### 4206 Yard Maintenance and Operations

**4206.1** The entire storage site shall be kept free from accumulation of unnecessary combustible materials. Vegetation shall be kept to a maximum of four inches high. Procedures shall be provided for weed control and the periodic cleanup of the yard area.

**4206.2** No heating equipment shall be located or used within the storage area. Salamanders, braziers, portable heaters, and other open fires shall not be used.



**4206.3** Smoking shall be prohibited, except in locations prominently designated as smoking areas. "No Smoking" signs shall be posted in prohibited areas.

**4206.4** Welding and cutting operations shall be prohibited in the storage area.

**4206.5** Tarpaulins used for protection of storage against the weather shall be of fire-retardant fabric.

**4206.6** Motorized vehicles using gasoline, diesel fuel, or liquefied petroleum gas as fuel shall be garaged in a separate, detached building.

#### 4207 Fire Protection

**4207.1** Fire extinguishers of an appropriate type shall be placed at well-marked strategic points throughout the storage area so that one or more portable fire extinguisher units can quickly be made available for use at any point. Where the climate is such that there is a danger of freezing, suitable extinguishers for freezing temperatures shall be used.

*SECTION 5003.4.1 MATERIAL SAFETY DATA SHEET SUBMITTAL is added to read as follows:*

**5003.4.1 Material safety data sheet submittal.** The Fire Marshal may require that information on the nature of any and all potentially hazardous material be submitted to the Fire Department on the Standard Material Safety Data Sheet provided by the U.S. Department of Labor Occupational Safety and Health Administration.

*SECTION 5004.2.2.5 MONITORING is amended to read as follows:*

**5004.2.2.5 Monitoring.** An approved monitoring method shall be provided to detect hazardous materials in the secondary containment system. The monitoring method is allowed to be visual inspection of the primary or secondary containment, or other approved means. Where secondary containment is subject to the intrusion of water, a monitoring method for detecting water shall be provided. Where monitoring devices are provided, they shall be connected to approved visual or audible alarms. Such systems shall be inspected and tested by the owner or occupant annually and properly maintained in an operative condition at all times. Records of inspections, tests and repairs shall be maintained and readily available to the fire code official upon request.

*SECTIONS 5306.2.1 ONE-HOUR EXTERIOR ROOMS AND 5306.2.2 ONE-HOUR INTERIOR ROOMS are amended to read as follows:*

**Section 5306.2.1 One-hour exterior rooms.** A 1-hour exterior room shall be a room or enclosure separated from the remainder of the building by fire barriers constructed in accordance with Section 707 of the International Building Code or horizontal assemblies constructed in accordance with Section 711 of the International Building Code, or both, with a fire resistance rating of not less than 1 hour. Openings between the room or enclosure and interior spaces shall be self-closing smoke- and draft-control assemblies having a fire protection rating of not less than 1 hour. Rooms shall have not less than one exterior wall that is provided with not less than two vents. Each vent shall have a minimum free opening area of 36 square inches (232 cm<sup>2</sup>) for each 1,000 cubic feet (28 m<sup>3</sup>) at normal temperature and pressure (NTP) of gas stored in the room and shall be not less than 72 square inches (465 cm<sup>2</sup>) in aggregate free opening area. One vent shall be within 6 inches (152 mm) of the floor and one shall be within 6 inches (152 mm) of the ceiling. Rooms shall be provided with not less than one automatic sprinkler to provide container cooling in case of fire. Where amounts exceed 1500 ft<sup>3</sup> (42.5m<sup>3</sup>), rooms shall be provided with not less than one automatic sprinkler to provide container cooling in case of fire.



**Section 5306.2.2 One-hour interior room.** Where an exterior wall cannot be provided for the room, a 1-hour interior room shall be provided and shall be a room or enclosure separated from the remainder of the building by fire barriers constructed in accordance with Section 707 of the International Building Code or horizontal assemblies constructed in accordance with Section 711 of the International Building Code, or both, with a fire resistance rating of not less than 1 hour. Openings between the room or enclosure and interior spaces shall be provided with self-closing, smoke- and draft-control assemblies having a fire protection rating of not less than 1 hour. An automatic sprinkler system shall be installed within the room. The room shall be exhausted through a duct to the exterior. Supply and exhaust ducts shall be enclosed in a 1-hour-rated shaft enclosure from the room to the exterior. Approved mechanical ventilation shall comply with the International Mechanical Code and be provided at a minimum rate of 1 cfm per square foot [ $0.00508 \text{ m}^3/(\text{s} \times \text{m}^2)$ ] of the area of the room. Where amounts exceed 1500 ft<sup>3</sup> (42.5m<sup>3</sup>), an automatic sprinkler system shall be installed within the room.

*SECTIONS 5601.1.3.1 UNLAWFUL POSSESSION OF FIREWORKS, 5601.1.3.2 INSTIGATING OR AIDING A MINOR TO VIOLATE THE ORDINANCE PROHIBITING FIREWORKS, and 5601.1.3.3 SUMMONS TO BE ISSUED FOR VIOLATION OF FIREWORKS ORDINANCE are added to read as follows:*

**5601.1.3.1 Unlawful possession of fireworks.** It shall be unlawful for any person to have, keep, store, sell, offer for sale, give away, use, transport or manufacture fireworks or pyrotechnics of all kinds in any quantity, within the corporate limits of the City.

**5601.1.3.2 Instigating or aiding a minor to violate the ordinance prohibiting fireworks.** No person shall furnish money or a thing of value to a minor for the purchase of fireworks or encourage, act in conjunction with or in any manner instigate or aid a minor in the act of having, keeping, storing, selling, offering for sale, giving away, using, transporting, or manufacturing fireworks within the corporate limits of the City. Such actions shall constitute Class C misdemeanors and be punished by a fine not to exceed \$2,000.00.

**5601.1.3.3 Summons to be issued for violation of fireworks ordinance.** A summons or notice to appear in answer to a charge of illegal possession or use of fireworks in violation of this section specifying the location of such violation, the date and time of such violation, and the name and address of the offender, may be issued by any Police Officer, Arson Investigator, Fire Inspector or by any Firemen who has been assigned to citation duties by the Fire Chief.

*SECTION 5601.2 PERMIT REQUIRED is amended by adding SECTIONS 5601.2.5 CONGESTED AREAS through 5601.2.14 APPEALS TO THE BOARD OF APPEALS CONCERNING EXPLOSIVES PERMITS to read as follows:*

**5601.2.5 Congested areas.** When explosives or explosive ingredients are stored, handled, used or transported or processed in congested mercantile, industrial, commercial or other heavily populated areas, the explosive permit must be countersigned by the Fire Chief and the Chief of Police or by a person authorized to act for each. No explosive permit for use in these areas shall be valid unless it bears the signature of each of the above-named officials.

**5601.2.6 Prohibited explosives.** It shall be unlawful for any person to have, keep, store, sell, offer for sale, give away, use, transport or manufacture any of the explosives listed in Section 5601.3 any quantity, within the corporate limits of the City, or to store, sell, use or offer for sale such explosives within 5000 feet beyond the City limits unless authorized by the Fire Marshal.



**5601.2.7 Applicant qualifications.** Only those persons who have proven to the Fire Marshal by examination or actual test or by check references of three persons not related to the applicant, or by all those means, that they are qualified to manufacture, store, handle, use, transport, or possess explosives and ingredients and who have proved to the satisfaction of the Fire Marshal that they have read, or have had read to them, and understood the provisions of this section shall be given an explosives permit. Applicants who fail the written examination may repeat the exam after 30 days. Those failing the test the second time may retake the test for the third time after 90 days. Persons failing the test three times will not be permitted to repeat test for one year from date of last test taken.

**5601.2.8 Inspection required.** Upon receipt of an application for a permit, special permit or certificate of fitness as required by this chapter, the Fire Marshal shall make or cause to be made an investigation to determine if all conditions of this article applying to the permit specified are fulfilled, and if the Fire Marshal shall find that the things required to be set forth and are true and that the requirements of this article are fulfilled, the permit or certificate herein mentioned shall be issued.

**5601.2.9 Purpose specified.** Explosive permit shall specify the purpose for which the explosives or other ingredients are to be manufactured, stored, handled, transported or possessed, and the maximum amount that will be allowed.

**5601.2.10 Application for permit.**

1. All applications for permits shall be in writing or submitted through the customer portal system. Government departments, firms, corporations, partnerships, contractors, or other legal entity may obtain explosive permits through a person authorized to act for or assumed legal responsibility for them.
2. The Fire Marshal shall not issue an explosive permit if he receives a written objection from the City Manager, Chief of Police or from persons authorized to act for them.
3. The Arson Division shall do a computer investigation check based on the information on the application.
4. Every person applying for a permit must be able to read and write the English language.
5. The Fire Marshal or his designate may request written comments on each permit application from the various affected City of San Antonio utilities or franchise holders. When, in the opinion of the Fire Marshal, such utility or franchise holder has a valid objection to the issuance of a permit, no permit shall be approved until such objection has been resolved to the satisfaction of the Fire Marshal or his designate.
6. When, in the opinion of the Fire Marshal or his designate, there is a substantial danger to life, health, or property in the immediate area exposed to the blasting for which a permit is being requested, said permit may be denied.

**5601.2.11 Records.** Permits shall be numbered consecutively on an annual basis and the Fire Marshal shall keep an accurate and complete record of all explosives permits issued.

**5601.2.12 Permit limitations.**

1. Explosives Handling Permits may be issued for a period, not to exceed one year from date of issuance, deemed advisable by the Fire Marshal.
2. No employee of a government department, firm, partnership or individual shall be issued an explosives handler permit unless his employer first obtains an explosives site permit.



3. An employee's explosive permit shall become void if his employer's explosive permit is revoked or expires without being renewed.
4. Permits shall be unassignable and nontransferable, and no person shall operate under, or have the benefit of, another person's permit.
5. The Fire Marshal shall revoke an explosive permit for violation of any of the provisions of this chapter. The offender shall have the right to appeal the Fire Marshal's revocation decision.
6. The death of any permittee, shall, ipso facto, immediately render the permit void, and the personal representative or heirs of the decedent must apply for a permit to cover remaining explosives or ingredients or uncompleted operations requiring a permit. If a permittee is discharged from his employment, his permit shall become immediately void and shall be delivered to his employer, who must deface it by writing across the face thereof the word "Void", together with a notation of the date and reason for the voidance, and thereafter mail or deliver it to the Fire Marshal, and the employer must at once take possession and charge of any explosives or ingredients for which the permittee was accountable. In the event of the dissolution or transfer of the business of any permittee, the successor in interest of the permittee shall immediately apply for a permit to cover any explosives, ingredients or operations relating to same.
7. In the event of the bankruptcy of a permittee, the trustee or receiver of his bankrupt estate shall immediately apply for a permit to cover any remaining explosives, ingredients, or operations relating thereto. The permit shall not pass with any forced sale or other forced transfer of explosives, ingredients, or operations covered by it, and the transferee must immediately apply for a permit to cover same.
8. Any permit that becomes void during the period for which it was issued shall be returned within ten days to the Fire Marshal and it shall be accompanied with all Photostat copies that have been made.
9. The Fire Marshal shall be notified of the loss or destruction of any valid permit.

#### **5601.2.13 Blasting site permits.**

1. Blasting permits shall be issued by the Fire Marshal and shall set forth the name of the contractor or other responsible party applying, the name of the property owner upon whose property the blasting is to be done and the location of the property. Such permit shall be valid and operative for a period not to exceed 90 days from date issued, except for quarry operation permits, which shall be issued for a period not to exceed one year.
2. The Fire Marshal shall not issue a permit to exceed 10,000 pounds of explosive materials for construction blasting, 500 electric or non-electric blasting caps for use per day at a permitted site, or 50 pounds of black powder of any kind.
3. The Fire Marshal may limit the quantity of explosives or blasting agents to be permitted at any location.
4. The Fire Marshal may defer the issuance of an explosives permit in order to make any such investigation as he deems necessary.

**5601.2.14 Appeals to the board of appeals concerning explosives permits.** Any person who has been refused issuance of an explosive permit or who has had his explosive permit revoked may appeal such action by notifying the chairman of the Building-related and Fire Codes Appeals and Advisory Board in writing within 10 days after he has received notice of such refusal or revocation.



*SECTION 5607.1 GENERAL is amended by adding SECTION 5607.1.1 CONDITIONS OF APPROVAL to read as follows:*

**5607.1.1 Conditions of approval.** The Fire Marshal shall set other conditions to the approval of a permit application that are necessary, in his opinion, to adequately protect the public health and safety. These conditions may include, but are not limited to, reduced allowable particle velocities, additional monitoring, increased insurance protection, hours of operation, type and amount of explosives used and engineered blasting plans.

*SECTION 5607.4 RESTRICTED HOURS is repealed and replaced with SECTION 5607.4 RESTRICTED HOURS to read as follows:*

**5607.4 Restricted hours.** Except by written approval by the Fire Marshal, no blasting operations shall be conducted on Saturdays, Sundays or legal holidays or between the hours of 5:00 p.m. and 8:00 a.m.

*SECTION 5607.13.1 NOTIFICATION TO THE FIRE DEPARTMENT PRIOR TO BLASTING is added to read as follows:*

**5607.13.1 Notification to the fire department prior to blasting.** The permit holder of the construction blast site shall call the SAFD dispatch center prior to the blast to notify them that a controlled construction blast will occur. The permit holder shall notify the Fire Department with the time and location of the blast.

*SECTION 5607.14 POST-BLAST PROCEDURES is amended by adding SECTION 5607.14.1 REMOVAL OF EQUIPMENT to read as follows:*

**5607.14.1 Removal of equipment.** All exposed blasting cap lead wires in the ground from previous shots shall be removed at the end of the workday.

*SECTION 5607 BLASTING is amended by adding SECTION 5607.16 PARTICLE VELOCITY PERMITTED and SECTION 5607.17 BLAST MONITOR REQUIRED to read as follows:*

**5607.16 Particle velocity permitted.** Peak particle velocity, airblast and flyrock requirements shall comply with NFPA 495 Chapter 11 and this code. A particle velocity of 1.7 inches per second will be the maximum velocity allowed by permit. One and seven-tenths (1.7) inches per second particle velocity or above will require the immediate suspension of blasting and corrective procedures implemented to reduce the excess velocity. The Fire Marshal may reduce this limit to adequately protect the public safety.

**5607.17 Blast monitor required.** A blast monitor, such as a seismic blast-recording machine, is required in connection with all permits issued inside the City limits of San Antonio unless specifically exempted by the Fire Marshal. Recordings shall comply with Bureau of Mines Standards for safety and property protection. Seismic readings for each blast shall be submitted to the Fire Marshal's office after each blast for record keeping as appropriate.

*SECTION 5608.1 GENERAL is amended by adding SECTIONS 5608.1.1 PUBLIC DISPLAYS - DUTIES OF THE OPERATOR through 5608.1.5 FIRE INSPECTORS TO BE PRESENT to read as follows:*

**5608.1.1 Public displays - duties of the operator.** The operator of a public fireworks display shall comply with the following:

1. The minimum radius of the secured area surrounding a fireworks display (the minimum safe distance between the mortar site and spectators) shall be 70 feet per shell inch of the largest shell to be fired. Spectators shall be restrained using a barrier approved by the Fire Marshal. Security officers shall be provided and assigned as approved by the Fire Marshal.
2. Fire projectiles:
  - 2.1. So that the range of aerial display shall be not more than 200 feet and the fireworks shall be discharged vertically from steel or other approved tubes; or
  - 2.2. So that they will impact in a body of water;
3. Maintain an unobstructed spatial separation of:
  - 3.1. 600 feet between the ignition point and a school;
  - 3.2. 200 feet between the ignition point and a highway, railroad, or building other than a school; and
  - 3.3. 50 feet between the ignition point and an overhead obstruction.
4. Discontinue the display if the wind carries fireworks debris to adjoining property; and
5. Immediately after display:
  - Search the display site for unfired fireworks or fireworks debris; and
  - Safely dispose of any unfired fireworks or fireworks debris in the prescribed by the Fire Marshal.

**5608.1.2 Fireworks permits.** Possession and use of fireworks and pyrotechnics shall be allowed in connection with a fireworks display in celebration of a recognized holiday under the following conditions:

1. The site of the display has been previously approved by the Fire Marshal;
2. The display is within 10 days of a federal, state or city holiday, and is in connection with a public holiday celebration;
3. The display is to be held under the supervision of the Fire Marshal or his representative. In addition to other violations contained in this chapter, it shall be unlawful for any person conducting such a display, or storing or moving explosives preparatory to such an event, to fail to adhere to all specifications and directions of the Fire Department representative supervising such event.

**5608.1.3 Materials not to be stored in city.** The material to be used for a public display authorized by this division shall not be stored within the City limits but shall be brought in on the day of the public display and then shall be taken immediately to the place of display for further handling and storage.

**5608.1.4 Limitation on time and number of displays.** No display authorized by this division shall be commenced prior to the hour of 1:00 P.M. nor later than 10:00 P.M. Sundays through Thursdays and no later than 11:00 P.M. on Fridays and Saturdays.; however, fireworks displays may be commenced between the hours of 10:00 P.M. on December 31 of any year and between the hours of midnight and 1:00 A.M. on January 1 of any year if such displays comply with all other requirements of this code. Any



display authorized by this division shall be completed within one hour after the time the display is commenced, and no permit shall authorize more than two displays in each 24 hours.

**5608.1.5 Fire inspectors to be present.** For each public display of fireworks under this division, not less than two Fire Prevention officers of the city shall be in attendance during the display. If more than two fire inspectors are required or the inspector's work takes longer than two hours, the additional expense shall be borne by the applicant for the permit at the rate per man-hour as provided for in Section 11-16(k) of the City Code. The Fire Chief may require standby firefighting unit at the expense of the applicant.

*SECTION 5608.2.2 USE OF PYROTECHNICS BEFORE A PROXIMATE AUDIENCE is amended by adding SECTION 5608.2.2.1 INSIDE USE OF PYROTECHNICS to read as follows:*

**5608.2.2.1 Inside use of pyrotechnics.** The use of pyrotechnics inside of a building shall be unlawful unless authorized and approved in writing by the Fire Marshal prior to the issuance of a permit. The Fire Marshal may require the owner or person in possession or control of the building or premises to provide without charge to the department a technical opinion and report stating whether harmful smoke would be produced and pose a health hazard to the public. The opinion and report shall be prepared by a qualified engineer, specialist, laboratory, or fire safety specialty organization acceptable to the Fire Marshal and the owner. A permit for the use of pyrotechnics shall be issued when approved by the Fire Marshal. Application for a permit shall be made in writing 10 days prior to the use of pyrotechnics.

*SECTION 5608.2 PERMIT APPLICATION is amended by adding SECTIONS 5608.2.3 PROCEDURE FOR APPLYING; PERMIT FOR FIREWORKS DISPLAY through 5608.2.8 DUTIES OF PERMITTEE to read as follows:*

**5608.2.3 Procedure for applying; Permit for Fireworks Display.** A permit applicant shall, at least 10 days before using fireworks, file with the Fire Marshal a completed permit application showing the:

1. Pyrotechnics:
  - a. Business address;
  - b. Proof of legal competency; and
  - c. Record of previous experience with fireworks;
2. Address of the proposed display;
3. Amount, type, and class of fireworks to be used;
4. Address of the company supplying the fireworks;
5. Date of proposed display;
6. Starting and ending times of the proposed display; and
7. Diagram of the proposed display grounds, detailing:
  - a. Firing points
  - b. Location of buildings and highways on or adjoining the grounds;
  - c. Spectator restraining lines; and
  - d. Overhead obstructions.

8. Completed permit application to the Fire Marshal including the surety bond or insurance coverage required by State Law.

The Fire Marshal shall, within five days from date of the completion of the requirements in Subsection (l) of this section, approve or refuse to approve the permit. If the Fire Marshal refuses to approve issuance, he shall immediately send to the applicant by certified mail, return receipt requested, a written statement explaining the basis of the refusal.

The permittee shall notify in writing, at least 48 hours prior to consideration by the Fire Marshal, all residents within 1000 feet of a proposed fireworks site.

**5608.2.4 Refusal to issue.** The Fire Marshal may refuse to approve issuance of a permit if the applicant:

1. Intentionally makes a false statement as to a material matter in the permit application;
2. Is a fugitive from justice;
3. Is under a felony indictment;
4. Has been finally convicted of a felony offense within that five-year period immediately preceding the filing of the application;
5. Has been finally convicted of a misdemeanor violation of an explosives law or regulation within the two-year period immediately preceding filing of the application;
6. Held a permit issued under this article, which permit was revoked within that one-year period immediately preceding the filing of the application;
7. Has been adjudicated a mental defective; is an unlawful user of, or addicted to, a controlled substance or dangerous drug, or suffers from any other handicap, infirmity, defect, or condition which might reasonably diminish his competency to safely conduct the proposed activity or would create an unreasonable risk of injury to life or property in the performance of the proposed activity.

**5608.2.5 Revocation of permit.** The Fire Marshal shall revoke a permit if the permittee:

1. Intentionally makes a false statement as to a material matter in the permit application;
2. Knowingly allows another to use his permit;
3. Violates a term or condition of the permit;
4. Fails within the applicable time period to comply with an order or notice on him under this article; or
5. Fails to discharge a duty imposed on him by this Section.

The Fire Marshal shall, within five days from the date of revocation, send to the permittee by certified mail, return receipt requested, a written statement explaining the basis of the revocation.

**5608.2.6 Appeal of permit refusal or revocation.** If the Fire Marshal refuses to issue a permit under this section, that action is final unless the applicant or permittee, within 10 days after receiving a written notice of the action, files a written appeal with the chairman of the Board of Appeals.



**5608.2.7 Bond.** The permittee shall furnish a bond or certificate of insurance in the minimum amount of one million dollars. The Fire Marshal may increase the amount of the required bond or insurance when he deems it advisable.

**5608.2.8 Duties of permittee.** A permittee shall:

1. Upon request, make his permit available for inspection to a member of the Fire Department, Police Officer, or any other authorized person;
2. Notify the Fire Marshal of the loss or destruction of an unexpired permit, notice to be given immediately upon discovery of the loss or destruction;
3. Secure a replacement permit for that lost or destroyed;
4. Comply immediately with the Fire Marshal's order to dispose of fireworks which become hazardous during the performance of this permitted activity; and
5. Return his permit to the Fire Marshal immediately upon its expiration, together with a statement detailing the cause of expiration and the disposition of unused fireworks.

*SECTION 5701.4 PERMITS is amended by adding SECTION 5701.4.1 PERMIT REQUIRED PRIOR TO INSTALLATION to read as follows:*

**5701.4.1 Permit required prior to installation.** A tank installation permit from the Fire Department is required prior to beginning installation. Application for permit shall be accompanied by construction documents, in accordance with Section 106, for installation over the Edward's Aquifer and shall be reviewed by the Aquifer Study Division of the San Antonio Water System prior to submittal to the Fire Department for a permit.

*SECTION 5703.6 PIPING SYSTEMS is amended by adding SECTION 5703.6.12 PRESSURIZED PIPING to read as follows:*

**5703.6.12 Pressurized piping.** Where a pressurized (remote pumped) piping system is connected to a tank, the piping system shall have an approved leak detection device installed in the system to monitor for leaks in the piping.

*SECTION 5704.2.7 DESIGN FABRICATION AND CONSTRUCTION REQUIREMENTS FOR TANKS is amended to read as follows:*

**5704.2.7 Design, fabrication and construction requirements for tanks.** The design, fabrication and construction of tanks shall comply with NFPA 30. Each tank shall bear a permanent nameplate or marking indicating the standard used as the basis of design. Above ground tanks used for outdoor storage of Class I, II and IIIA liquids shall be listed and labeled in accordance with UL2085 or as approved by the fire code official. Above ground storage tanks used for the storage of Class IIIB liquids shall be listed and labeled in accordance with UL142, UL 2085, or as approved by the fire code official.

*SECTION 5704.2.11.4.2 LEAK DETECTION is amended to read as follows:*

**5704.2.11.4.2 Leak detection.** Underground storage tank systems shall be provided with an approved method of leak detection from any component of the system that is designed and installed in accordance with NFPA 30. The following are approved methods of leak detection:

1. Manual tank gauging (for tanks less than 1,000 gallons);
2. Automatic tank gauging and inventory control;
3. Vapor monitoring;
4. Groundwater monitoring;
5. Interstitial monitoring of double-wall systems;
6. Monitoring of systems with secondary containment barriers;
7. Statistical Inventory Reconciliation (SIR) - (for tanks and lines) NOTE: Documentation of performance claims for the SIR method must show the system's ability to detect releases of 0.1 g.p.h. with 95% or more probability of detection and five percent or less probability of false alarm.

*SECTION 5704.2.12.2 TESTING OF UNDERGROUND TANKS is amended to read as follows:*

**5704.2.12.2 Testing of underground tanks.** Before being covered or placed in use, tanks and piping connected to underground tanks shall be tested for tightness in the presence of the fire code official. Piping shall be tested in accordance with Section 5703.6.3. The system shall not be covered until it has been approved. Each tank shall be tested for tightness hydrostatically or pneumatically at not less than three pounds per square inch or not more than five pounds per square inch for 60 minutes. Pneumatic testing shall not be used on a tank containing flammable or combustible liquids or vapors.

*SECTION 5704.2.12.2 TESTING OF UNDERGROUND TANKS is amended by adding SECTIONS 5704.2.12.2.1 EXISTING TANKS AND PIPING and 5704.2.12.2.2 ALTERNATE TEST METHOD to read as follows:*

**5704.2.12.2.1 Existing tanks and piping.** Existing underground storage tanks and piping shall be tested for leakage every five years at the owner's or operator's expense or when the Fire Marshal has reasonable cause to believe a leak exists. A log or record shall be kept, and the log shall be made available for inspection by the Fire Marshal when requested. Notice of test shall be provided in writing to the Fire Marshal by the owner or operator.

**5704.2.12.2.2 Alternate test method.** The Fire Marshal may require that the standpipe method of testing for tank leaks be utilized if, in the Fire Marshal's opinion, the air pressured tests would be unlikely to detect a leak, cause damage to tank or cause expulsion of contained liquids.

*SECTION 5706.2.4 PERMANENT AND TEMPORARY TANKS is amended to read as follows:*

**5706.2.4 Permanent and temporary tanks.** The capacity of permanent above-ground tanks containing Class I or II liquids shall not exceed 1,100 gallons (4164 L). The capacity of temporary above-ground tanks containing Class I or II liquids shall not exceed ~~40,000~~ 2,000 gallons (~~37,854.7~~ 570 L). Tanks shall be of the single-compartment design.

*SECTION 6107.4 PROTECTING CONTAINERS FROM VEHICLES is amended to read as follows:*

**6107.4 Protecting containers from vehicles.** Where exposed to vehicular damage due to proximity to alleys, driveways or parking areas, LP-gas containers, regulators and piping shall be protected in accordance with ~~NFPA-58~~ Section 312 Vehicle Impact Protection.



*SECTION 6109.13 PROTECTION OF CONTAINERS is amended to read as follows:*

**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 6107.4 312 Vehicle Impact Protection.

~~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.~~

*CHAPTER 80, REFERENCED STANDARDS, is amended by adding the following referenced standard:*

NFPA 90A-21 Standard for the Installation of Air-Conditioning and Ventilating Systems

*APPENDIX B, SECTION B104.2 AREA SEPARATION IS AMENDED to read as follows:*

**B104.2 Area separation.** Portions of buildings which are separated by fire walls without openings, constructed in accordance with the International Building Code, are allowed to be considered as separate fire-flow calculation areas.

Exceptions

1. Fire-flow calculation area for open parking garages shall be determined by the area of the largest floor.
2. Where building additions are protected with an approved automatic sprinkler system and separated from the existing building by an approved Fire Barrier with minimum fire resistance ratings and protected openings as per the International Building Code, fire areas may be considered as separate.

*APPENDIX B, SECTION B105, FIRE-FLOW REQUIREMENTS FOR BUILDINGS is repealed and replaced with SECTION B105, FIRE-FLOW REQUIREMENTS FOR BUILDINGS to read as follows:*

**B105.1 One- and two-family dwellings.** The minimum fire-flow and flow duration requirements for one- and two family dwellings having a fire-flow calculation area that does not exceed 3600 square ft (344.5 m<sup>2</sup>) shall be 1,000 gallons per minute (3785.4 L/min) for 1 hour. Fire-flow and flow duration for dwellings having a fire-flow calculation area in excess of 3,600 square feet (344.5m<sup>2</sup>) shall not be less than that specified in Table B105.1.

Exception: A reduction in required fire-flow of 50 percent, as approved, is allowed when the building is equipped with an approved automatic sprinkler system.

**B105.2 Buildings other than one- and two family dwellings.** The minimum fire-flow and flow duration for buildings other than one- and two-family dwellings shall be as specified in Table B105.1.

Exception 1. Buildings equipped throughout with an approved automatic sprinkler system in accordance with Sections 903.3.1.1, 903.3.1.2, or 903.3.1.3 shall qualify for a reduction in the required fire flow

according to Table B105.2 below. Note also the minimum and maximum fire flows listed in the table for the fully sprinklered occupancies listed.

Exception 2. Non-fire sprinklered, non-combustible open parking garages meeting the requirements of the 2021 International Building Code Section 406.3 shall have a maximum required fire flow of 2,200 gpm.

**TABLE B105.1 MINIMUM REQUIRED FIRE-FLOW AND FLOW DURATION FOR BUILDINGS**

FIRE-FLOW CALCULATION AREA (square feet)					FIRE-FLOW (gallons per minute) <sup>b</sup>	FLOW DURATION (hours)
Type IA and IB <sup>a</sup>	Type IIA and IIIA <sup>a</sup>	Type IV and V-A <sup>a</sup>	Type IIB and IIIB <sup>a</sup>	Type V-B <sup>a</sup>		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	2
22,701- 30,200	12,701- 17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201- 38,700	17,001- 21,800	10,901- 12,900	7,901-9,800	4,801-6,200	2,000	
38,701- 48,300	21,801- 24,200	12,901- 17,400	9,801- 12,600	6,201-7,700	2,250	
48,301- 59,000	24,201- 33,200	17,401- 21,300	12,601- 15,400	7,701-9,40	2,500	
59,001- 70,900	33,201- 39,700	21,301- 25,500	15,401- 18,400	9,401- 11,300	2,750	
70,901- 83,700	39,701- 47,100	25,501- 30,100	18,401- 21,800	11,301- 13,400	3,000	3
83,701- 97,700	47,101- 54,900	30,101- 35,200	21,801- 25,900	13,401- 15,600	3,250	
97,701- 112,700	54,901- 63,400	35,201- 40,600	25,901- 29,300	15,601- 18,000	3,500	



<u>112,701-</u> <u>128,700</u>	<u>63,401-</u> <u>72,400</u>	<u>40,601-</u> <u>46,400</u>	<u>29,301-</u> <u>33,500</u>	<u>18,001-</u> <u>20,600</u>	<u>3,750</u>	
<u>128,701-</u> <u>145,900</u>	<u>72,401-</u> <u>82,100</u>	<u>46,401-</u> <u>52,500</u>	<u>33,501-</u> <u>37,900</u>	<u>20,601-</u> <u>23,300</u>	<u>4,000</u>	4
<u>145,901-</u> <u>164,200</u>	<u>82,101-</u> <u>92,400</u>	<u>52,501-</u> <u>59,100</u>	<u>37,901-</u> <u>42,700</u>	<u>23,301-</u> <u>26,300</u>	<u>4,250</u>	
<u>164,201-</u> <u>183,400</u>	<u>92,401-</u> <u>103,100</u>	<u>59,101-</u> <u>66,000</u>	<u>42,701-</u> <u>47,700</u>	<u>26,301-</u> <u>29,300</u>	<u>4,500</u>	
<u>183,401-</u> <u>203,700</u>	<u>103,101-</u> <u>114,600</u>	<u>66,001-</u> <u>73,300</u>	<u>47,701-</u> <u>53,000</u>	<u>29,301-</u> <u>32,600</u>	<u>4,750</u>	
<u>203,701-</u> <u>225,200</u>	<u>114,601-</u> <u>126,700</u>	<u>73,301-</u> <u>81,100</u>	<u>53,001-</u> <u>58,600</u>	<u>32,601-</u> <u>36,000</u>	<u>5,000</u>	
<u>225,201-</u> <u>247,700</u>	<u>126,701-</u> <u>139,400</u>	<u>81,101-</u> <u>89,200</u>	<u>58,601-</u> <u>65,400</u>	<u>36,001-</u> <u>39,600</u>	<u>5,250</u>	
<u>247,701-</u> <u>271,200</u>	<u>139,401-</u> <u>152,600</u>	<u>89,201-</u> <u>97,700</u>	<u>65,401-</u> <u>70,600</u>	<u>39,601-</u> <u>43,400</u>	<u>5,500</u>	
<u>271,201-</u> <u>295,900</u>	<u>152,601-</u> <u>166,500</u>	<u>97,701-</u> <u>106,500</u>	<u>70,601-</u> <u>77,000</u>	<u>43,401-</u> <u>47,400</u>	<u>5,750</u>	
<u>295,901-</u> <u>Greater</u>	<u>166,501-</u> <u>Greater</u>	<u>106,501-</u> <u>115,800</u>	<u>77,001-</u> <u>83,700</u>	<u>47,401-</u> <u>51,500</u>	<u>6,000</u>	
<u>==</u> <u>==</u>	<u>==</u> <u>==</u>	<u>115,801-</u> <u>125,500</u>	<u>83,701-</u> <u>90,600</u>	<u>51,501-</u> <u>55,700</u>	<u>6,250</u>	
<u>==</u> <u>==</u>	<u>==</u> <u>==</u>	<u>125,501-</u> <u>135,500</u>	<u>90,601-</u> <u>97,900</u>	<u>55,701-</u> <u>60,200</u>	<u>6,500</u>	
<u>==</u> <u>==</u>	<u>==</u> <u>==</u>	<u>135,501-</u> <u>145,800</u>	<u>97,901-</u> <u>106,800</u>	<u>60,201-</u> <u>64,800</u>	<u>6,750</u>	

==	==	<u>145,801-</u> <u>156,700</u>	<u>106,801-</u> <u>113,200</u>	<u>64,801-</u> <u>69,600</u>	<u>7,000</u>
==	==	<u>156,701-</u> <u>167,900</u>	<u>113,201-</u> <u>121,300</u>	<u>69,601-</u> <u>74,600</u>	<u>7,250</u>
==	==	<u>167,901-</u> <u>179,400</u>	<u>121,301-</u> <u>129,600</u>	<u>74,601-</u> <u>79,800</u>	<u>7,500</u>
==	==	<u>179,401-</u> <u>191,400</u>	<u>129,601-</u> <u>138,300</u>	<u>79,801-</u> <u>85,100</u>	<u>7,750</u>
==	==	<u>191,401-</u> <u>Greater</u>	<u>138,301-</u> <u>Greater</u>	<u>85,101-</u> <u>Greater</u>	<u>8,000</u>

For SI: 1 square foot = 0.0929 m<sup>2</sup>, 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

- a. Types of construction are based on the *International Building Code*.  
b. Measured at 20 psi residual pressure.

**TABLE B105.2—FIRE FLOW REDUCTIONS FOR FULLY SPRINKLERED BUILDINGS**

<u>Construction Type</u>	<u>Occupancy Type 4, 5</u>	<u>% Reduction</u>	<u>Minimum (gpm)</u>	<u>Maximum (gpm)</u>
<u>All</u>	<u>A</u>	<u>75</u>	<u>1,500</u>	<u>2,000</u>
<u>VB, IIIB, IIB</u>	<u>B</u>	<u>50</u>	<u>1,500</u>	<u>2,200</u>
<u>All Others</u>	<u>B</u>	<u>50</u>	<u>1,500</u>	<u>2,000</u>
<u>All</u>	<u>E</u>	<u>75</u>	<u>1,500</u>	<u>2,000</u>
<u>VB, IIIB, IIB</u>	<u>F</u>	<u>50</u>	<u>1,500</u>	<u>2,200</u>
<u>All Others</u>	<u>F</u>	<u>50</u>	<u>1,500</u>	<u>2,000</u>



<u>All</u>	<u>H-1</u>	<u>See Footnotes</u>	<u>1,500</u>	<u>See Footnotes</u>
<u>All</u>	<u>H-2</u>	<u>See Footnotes</u>	<u>1,500</u>	<u>See Footnotes</u>
<u>All</u>	<u>H-3</u>	<u>See Footnotes</u>	<u>1,500</u>	<u>See Footnotes</u>
<u>All</u>	<u>H-4</u>	<u>See Footnotes</u>	<u>1,500</u>	<u>See Footnotes</u>
<u>All</u>	<u>H-5</u>	<u>See Footnotes</u>	<u>1,500</u>	<u>See Footnotes</u>
<u>All</u>	<u>I</u>	<u>75</u>	<u>1,500</u>	<u>2,000</u>
<u>VB, IIIB, IIB</u>	<u>M</u>	<u>50</u>	<u>1,500</u>	<u>2,200</u>
<u>All Others</u>	<u>M</u>	<u>50</u>	<u>1,500</u>	<u>2,000</u>
<u>All</u>	<u>R</u>	<u>50</u>	<u>1,500</u>	<u>2,000</u>
<u>All except VB2</u>	<u>S-1 not high piled</u>	<u>50</u>	<u>1,500</u>	<u>2,200</u>
<u>All except VB2</u>	<u>S-1 high piled Class I-IV commodities, ≤ 12,000 sq ft.</u>		<u>Greater of Approved Sprinkler Demand<sup>3</sup> (ASD) or 1,500 gpm</u>	
<u>All except VB2</u>	<u>S-1 high piled Class I-IV commodities, &gt;12,000 sq ft</u>		<u>Greater of 2,200 gpm or the ASD + 25%</u>	
<u>All except VB2</u>	<u>S-1 high piled Class V commodities, ≤ 2,500 sq ft.</u>		<u>Greater of 1,500 gpm or the ASD</u>	
<u>All except VB2</u>	<u>S-1 high piled Class V commodities, 2,501-6,000 sq ft</u>		<u>Greater of 1,500 gpm or the ASD + 500 gpm</u>	
<u>All except VB2</u>	<u>S-1 high piled Class V commodities, &gt;6,000 sq ft</u>		<u>Greater of 2,200 gpm or the ASD + 1,000 gpm</u>	
<u>All except VB2</u>	<u>S-1 Aircraft</u>			
<u>Hangers, Helistops</u>	<u>50</u>	<u>1,500</u>	<u>2,200</u>	

<u>All except VB2</u>	<u>S-2</u>	<u>50</u>	<u>1,500</u>	<u>2,200</u>
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Footnotes:

1. As determined by Fire Marshal on a case-by-case basis.
2. These occupancies that are constructed of Type VB construction shall not be granted a reduction in the required fire flow due to the installation of a fire sprinkler system.
3. Approved sprinkler demand (ASD) is the sprinkler demand as defined in NFPA or other nationally recognized standards and includes the hose stream demand. When multiple sprinkler systems are in one building, the approved sprinkler demand shall be the greatest sprinkler demand (including hose stream demand).
4. Occupancies containing High Piled Combustible Storage as defined in Chapter 32 shall be evaluated using the criteria for S-1 occupancies.
5. Mixed-use occupancies shall be evaluated for the most restrictive occupancy present in the building.

**B105.3 FIRE-FLOW REQUIREMENTS FOR HYDRANTS PROTECTING CERTAIN ABOVE GROUND FLAMMABLE AND COMBUSTIBLE LIQUID STORAGE TANKS.** The minimum required fire flow for above ground storage tanks used for the storage of Class I, II, and IIIA liquid fuels in excess of 12,000 gallons, storage tank farms with an aggregate capacity of 48,000 gallons or greater, or for refineries shall be a minimum 2000 gallons per minute unless approved by the fire code official.

*APPENDIX C, FIRE HYDRANT LOCATIONS AND DISTRIBUTION is hereby amended by amending TABLE C102.1 REQUIRED NUMBER AND SPACING OF FIRE HYDRANTS to read as follows:*

TABLE C102.1 Number and Distribution of Fire Hydrants

<u>PRE-FLOW REQUIREMENT (gpm)</u>	<u>MINIMUM NUMBER OF HYDRANTS</u>
<u>1,750 or less</u>	<u>1</u>
<u>2,000-2,250</u>	<u>2</u>
<u>2,500</u>	<u>3</u>
<u>3,000</u>	<u>3</u>
<u>3,500-4,000</u>	<u>4</u>
<u>4,500-5,000</u>	<u>5</u>
<u>5,500</u>	<u>6</u>
<u>6,000</u>	<u>6</u>



<u>6,500-7,000</u>	<u>7</u>
<u>7,500 or more</u>	<u>8 or more</u>

For SI: 1 foot= 304.8 mm, 1 gallon per minute = 3.785L/m.

- a. Reduce by 100 feet for dead-end streets or roads.
- b. Where streets are provided with median dividers which cannot be crossed by fire fighters pulling hose lines, or where arterial streets are provided with four or more traffic lanes and have a traffic count of more than 30,000 vehicles per day, hydrant spacing shall average 500 feet on each side of the street and be arranged on an alternating basis up to a fire-flow requirement of 7,000 gallons per minute and 400 feet for higher fire-flow requirements.
- c. Where new water mains are extended along streets where hydrants are not needed for protection of structures of similar fire problems, fire hydrants shall be provided at spacing not to exceed 1,000 feet to provide for transportation hazards.
- d. Reduce by 50 feet for dead-end streets or roads.
- e. One hydrant for each 1, 000 gallons per minute or fraction thereof

## APPENDIX D

### FIRE APPARATUS ACCESS ROADS

APPENDIX D SECTION D103.5 FIRE APPARATUS ACCESS ROAD GATES is amended to read as follows:

**D103.5 Fire apparatus access road gates.** Gates securing the fire apparatus access roads shall comply with all of the following criteria:

1. Where a single gate is provided, the gate width shall be not less than 20 feet (6096 mm). Where a fire apparatus road consists of a divided roadway, the gate width shall be not less than ~~12-14 feet (3658 mm).~~
2. Gates shall be of the swinging or sliding ~~horizontal swing, horizontal slide, vertical lift or vertical pivot~~ type.
3. Construction of gates shall be of materials that allow manual operation by one person.
4. Gate components shall be maintained in an operative condition at all times and replaced or repaired when defective.
5. Electric gates shall be equipped with a means of opening the gate by fire department personnel for emergency access. Emergency opening devices shall be approved by the fire code official.
6. Methods of locking shall be submitted for approval by the fire code official.
7. Electric gate operators, where provided, shall be listed in accordance with UL 325.
8. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200.

*APPENDIX D SECTIONS D103.6.1 ROADS 20 TO 26 FEET IN WIDTH and D103.6. 2 ROADS MORE THAN 26 FEET IN WIDTH are repealed and replaced with SECTIONS D103.6.1 ROADS 20 TO 26 FEET IN WIDTH and D103.6.2 ROADS MORE THAN 26 FEET IN WIDTH to read as follows:*

**D103.6.1 Roads 20 to 26 feet in width.** Fire lane signs in accordance with Section 503.3 of this code shall be posted on both sides of fire apparatus access roads that are 20 to 26 feet wide (6096 to 7925 mm).

**D103.6.2 Roads more than 26 feet in width.** Fire lane signs in accordance with Section 503.3 of this code shall be posted on one side of fire apparatus access roads more than 26 feet wide (7925 mm) and less than 32 feet wide (9754 mm).

*APPENDIX D SECTION D104.1 BUILDINGS EXCEEDING THREE STORIES OR 30 FEET IN HEIGHT is repealed.*

*APPENDIX D SECTION D105.1 WHERE REQUIRED is amended to read as follows:*

**D105.1 Where required.** Where the vertical distance between the grade plane and the highest roof surface exceeds 30 feet (9144 mm), approved aerial fire apparatus access roads shall be provided. For the purposes of this section, the highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls, whichever is greater.

**Exception:** ~~Where approved by the fire code official, buildings of Type IA, Type IB or Type IIA construction equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and having firefighter access through an enclosed stairway with a Class I standpipe from the lowest level of fire department vehicle access to all roof surfaces.~~

**Exceptions:**

1. In other than Group R only buildings, aerial fire apparatus access roads per this section are not required where all of the following conditions are met:
  - a. the building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, and
  - b. roof access from an enclosed stairwell is provided for buildings 2 or more stories in height. Stairwell must be contiguous from the lowest level of fire department vehicle access to the roof and designed in accordance with the 2021 International Building Code, and
  - c. any required fire apparatus access roads and fire lanes are designed with a minimum 25-foot width and provided throughout the platted property.
2. In Group R only buildings, aerial fire apparatus access roads per this section are not required where all of the following conditions are met:
  - a. the building is no more than four stories in height, and
  - b. the building is protected by an approved automatic sprinkler system in accordance with Section 903.3.1, and
  - c. the building meets the allowable area provisions of Chapter 5 of the *International Building Code* without the use of the area increase factor due to sprinkler protection. (Note: Refer to IBC Equation 5-1.)

*APPENDIX D SECTION D105.2 WIDTH is amended to read as follows:*



**D105.2 Width.** Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet, exclusive of shoulders, in the immediate vicinity of the building or portion thereof.

Exception: An aerial apparatus access lane may be less than twenty-six (26) ft wide where a minimum 25ft wide fire lane or fire apparatus access road is provided throughout the platted property.

*APPENDIX D SECTION D105.3 PROXIMITY TO BUILDING is amended to read as follows:*

**D105.3 Proximity to building.** ~~One or more~~ At least one of the required access routes meeting this condition shall be located ~~not less than~~ within a minimum of 15 feet (4572 mm) and a maximum of 39 not greater than 30 feet (9144 mm) from the building, ~~and~~ The road shall be positioned parallel to one entire side of the building the side(s) where the aerial access equipment will have maximum use and access by the fire department. The side of the building on which the aerial fire apparatus access road is positioned shall be approved by the fire code official. The length of the aerial apparatus road shall total at least one of the following:

1. The entire length of one side of the building provided the length is a minimum of 50 feet,  
or
2. 25% of the entire building perimeter.

*Appendix D FIRE APPARATUS ACCESS ROADS is hereby amended by adding SECTION D106.4 SEPARATE ACCESS ROADS to read as follows:*

**D106.4 Separate access roads.** The requirement for two separate and approved fire apparatus access roads are met with the following conditions:

1. A minimum of two separate entrances into the complex are made from the street or public way.
2. The distance between the two entrances are equal to not less than one half the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses, as per 2021 IFC, section D104.3.

Exception: Where it is physically impossible to be one-half the diagonal dimension apart, the access road will be approved if the following conditions are met:

- a. The two separate fire apparatus access road must be separated as far as physically and practically possible.
- b. The two separate entrances must be a minimum of 150 feet apart measured in a straight line between accesses.
3. The two separate entrances are allowed to share a common path of travel on the complex site so long as blockage in any one area of this path does not block access from both the primary and secondary access simultaneously. Each of the two separate fire apparatus roads shall meet the requirements of the 2021 IFC, Section 503, Fire Apparatus Access Roads.

## SECTION D107

### ONE- OR TWO- FAMILY RESIDENTIAL DEVELOPMENTS

*APPENDIX D SECTION D107.1 ONE- OR TWO- FAMILY RESIDENTIAL DEVELOPMENTS is amended to read as follows:*

**D107.1 One or two-family dwelling residential developments.** Developments of one- or two- family dwellings where the number of dwelling units exceeds 30 shall be provided with two separate and approved fire apparatus access roads.

**Exceptions:**

1. Where there are more than 30 dwelling units accessed from a single public or private fire apparatus access road and all dwelling units are equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3, access from two directions shall not be required.
2. The number of dwelling units accessed from a single fire apparatus access road shall not be increased unless fire apparatus access roads will connect with future development, as determined by the fire code official.
3. Developments of more than 30 dwelling units but less than 126 dwelling units shall not require a separate and remote fire apparatus access road where;
  - a. a divided entrance with a minimum of 24 feet per side is provided, and
  - b. the divided entrance is connected to a minimum 30 foot wide, with no parking on either side, fire apparatus access road of no greater than 450 feet in length, and
  - c. is connected to a looped street configuration as approved by the fire code official.
4. Developments of more than 30 dwelling units but less than 126 dwelling units having a secondary, all weather, gated access, that is utilized by emergency vehicles only meeting the remoteness requirements in Section D107.2 are considered in compliance with this section.

*APPENDIX M HIGH-RISE BUILDINGS - RETROACTIVE AUTOMATIC SPRINKLER REQUIREMENT is repealed and replaced with APPENDIX M HIGH-RISE BUILDINGS - AUTOMATIC SPRINKLER RETROFIT REQUIREMENT to read as follows:*

**APPENDIX M**

**HIGH-RISE BUILDINGS—AUTOMATIC SPRINKLER RETROFIT REQUIREMENT**

**SECTION M101**

**SCOPE**

**M101.1 Scope.** An automatic sprinkler system shall be installed in all existing high-rise buildings in accordance with the requirements and compliance schedule of this appendix.

**SECTION M102**

**DEFINITION**

**M102.1 Definition.** High-rise building is defined in Chapter 2 of the International Fire Code.

**SECTION M103**

**WHERE REQUIRED**

**M103.1 High-rise buildings.** An automatic sprinkler system installed in accordance with Section 903.3.1.1 of the adopted International Fire Code shall be provided throughout existing high-rise buildings.

**Exceptions:**

1. Airport Control Towers
2. Open Parking Structures
3. Group U occupancies



4. Occupancies in Group F-2
5. Buildings with an occupancy in Assembly Group A-5
6. Individually owned dwelling units in high-rise buildings

#### SECTION M104 COMPLIANCE

**M104.1 Letter of intent.** By January 1, 2017, owners of existing high-rise buildings must have submitted to the fire code official a letter expressing the owner's intent to comply with this section.

**M104.2 Compliance schedule.** Building owners shall file a compliance schedule with the fire code official not later than October 1, 2021. The compliance schedule shall not exceed twelve (12) years for an automatic sprinkler system retrofit and shall comply with the following schedule for installation.

1. Not later than October 1, 2024, the building owner shall install a water supply for the automatic sprinkler system on all floors of the high-rise building in accordance with the adopted standards of the International Fire Code.
2. Not later than October 1, 2027, the building owner shall install an automatic sprinkler system in accordance with the adopted standards of the International Fire Code on 50% of the floors of the building.
3. Not later than October 1, 2030, the building owner shall install an automatic sprinkler system in accordance with the adopted standards of the International Fire Code on all floors of the building.

**M104.3 Alternate Compliance Schedule for Multi-Building Owners.** Owners of multiple high-rise buildings are considered to have met the requirements of Appendix M if a fire sprinkler system has been installed on all floors of:

1. at least 33 percent of the owner's high-rise buildings not later October 1, 2024;
2. at least 66 percent of the owner's high-rise buildings not later than October 1, 2027; and
3. all of the owner's high-rise buildings not later than October 1, 2030.

**M104.4 Compliance with state law.** Owners of applicable residential high-rise buildings must comply with Health and Safety Code, Chapter 766, Subchapter B. Fire Protection Sprinkler Systems in Certain Residential High-Rise Buildings in Certain Counties.

#### SECTION M105

##### REFERENCED STANDARDS

ICC IFC-15 International Fire Code M102.1