ORDINANCE NO. ORD-2015-9753


BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF IRVING, TEXAS:

SECTION 1. That Section 17-4 of Chapter 17 of the Land Development Code of the City of Irving, Texas, is hereby amended to read as follows:


(a) Adopted. The City of Irving hereby adopts the provisions contained in the 2015 International Fire Code as published by the International Code Council, Inc., a copy of which is on file in the Office of the City Secretary of the City of Irving, with amendments, modifications, and deletions as set forth in section (b) of this article. In Chapter 17 of The Land Development Code of the City of Irving, Texas, the words “this code” shall mean the International Fire Code as adopted by the City of Irving.

(b) Amendments, modifications and deletions.

Section 101.1. Section 101.1 of Section 101 “Scope and General Requirements” of Chapter 1 “Scope and Administration” of this code is amended to read as follows:

101.1 Title. These regulations shall be known as the Fire Code of the City of Irving, Texas.

Section 101.2.1. Section 101.2.1 of Section 101 “Scope and General Requirements” of Chapter 1 “Scope and Administration” of this code is amended to read as follows:

101.2.1 Appendices. Appendix B - “Fire-Flow Requirements for Buildings,” as amended, Appendix C - “Fire Hydrant Locations and Distribution,” as amended, and Appendix D - “Fire Apparatus Access Roads,” as amended, shall be considered part of the requirements of this code.

Section 102.1. Section 102.1 of Section 102 “Applicability” of Chapter 1 “Scope and Administration” of this code is amended to read as follows:

102.1 Construction and design provisions. The construction and design provisions of this code shall apply to:

1. Structures, facilities and conditions arising after the adoption of this code.

2. Existing structures, facilities and conditions not legally in existence at the time of adoption of this code.

3. Existing structures, facilities and conditions when required in Chapter 11 or in specific sections of this code.
4. Existing structures, facilities and conditions which, in the opinion of the code official, constitute a distinct hazard to life or property.

5. The provisions of this code apply to buildings built under the IRC and IBC.

Section 102.4. Section 102.4 of Section 102 “Applicability” of Chapter 1 “Scope and Administration” of this code is amended to read as follows:

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

Section 102.7. Section 102.7 of Section 102 “Applicability” of Chapter 1 “Scope and Administration” of this code is amended to read as follows:

102.7 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 80 and such codes, when specifically adopted, and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between the provisions of this code and the referenced standards, the provisions of this code shall apply. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the ICC Electrical Code shall mean the Electrical Code as adopted. Codes and standards shall be the most recent edition available.

Section 103. Section 103 “Department of Fire Prevention” of Chapter 1 “Scope and Administration” is amended by deleting section 103.2 “Appointment.”

Section 104.9. Section 104.9 of Section 104 “General Authority and Responsibilities” of Chapter 1 “Scope and Administration” of this code is amended to read as follows:

104.9 Alternative materials and methods. The provisions of this code are not intended to prevent the installation of any material or to prohibit any method of construction not specifically prescribed by this code, provided that any such alternative has been approved. The fire code official is authorized to approve alternative material or method of construction where the fire code official finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.

Section 105.6.45. Section 105.6.45 of Section 105 “Permits” of Chapter 1 “Scope and Administration” of this code is amended to read as follows:

105.6.45 Temporary membrane structures and tents. An operational permit is required to operate an air-supported temporary membrane structure or a tent having an area in excess of 400 square feet, or a tent, open without sidewalls or drops on 75 percent or more of the perimeter, in excess of 1600 square feet.
Exceptions:

1. Tents used exclusively for recreational camping purposes.

2. Fabric tents open on all sides which comply with all of the following:

   2.1. Individual tents having a maximum size of 1,600 square feet.

   2.2. The aggregate area of multiple tents placed side by side without a fire break clearance of not less than 20 feet shall not exceed 1,600 square feet total.

   2.3. A minimum clearance of 20 feet to structures.

Section 105.7.9. Section 105.7.9 of Section 105 “Permits” of Chapter 1 “Scope and Administration” of this code is amended to read as follows:

105.7.9 **Electronic access control systems.** Construction permits are required for the installation or modification of an electronic access control system, as specified in Section 503 and Section 1010. A separate construction permit is required for the installation or modification of a fire alarm system that may be connected to the access control system. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

Section 105.7.14. Section 105.7.14 of Section 105 “Permits” of Chapter 1 “Scope and Administration” of this code is amended to read as follows:

105.7.14 **Smoke control or exhaust systems.** Construction permits are required for smoke control or exhaust systems as specified in Section 909 and Section 910, respectively. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

Section 105.7.18. Section 105.7.18 of Section 105 “Permits” of Chapter 1 “Scope and Administration” of this code is amended to read as follows:

105.7.18 **Temporary membrane structures and tents.** A construction permit is required to erect an air-supported temporary membrane structure or a tent having an area in excess of 400 square feet, or a tent, open without sidewalls or drops on 75 percent or more of the perimeter, in excess of 1,600 square feet.

Exceptions:

1. Tents used exclusively for recreational camping purposes.

2. Funeral tents and curtains or extensions attached thereto, when used for funeral services.

3. Fabric tents open on all sides which comply with all of the following:
3.1. Individual tents having a maximum size of 1,600 square feet.

3.2. The aggregate area of multiple tents placed side by side without a fire break clearance of not less than 20 feet shall not exceed 1,600 square feet total.

3.3. A minimum clearance of 20 feet to structures

Section 106. Section 106 “Inspections” of Chapter 1 “Scope and Administration” of this code is amended by adding Sections 106.5 and 106.6 to read as follows:

106.5 Approval by the fire code official. Each application for a certificate of occupancy (as required by the International Building Code) must be reviewed and the premises approved by the fire code official before a certificate of occupancy may be issued. If a facility is closed for failure to comply with a provision of any applicable law, the code official or the building official shall revoke its certificate of occupancy. He or she shall not issue a new certificate of occupancy for the facility unless and until it is in compliance with all current applicable codes and laws. The building official or the fire code official may waive the requirement for compliance with one or more provisions of the current laws if the building is brought into compliance with the most stringent comparable code provision or provisions practicable under the circumstances.

106.6 Letter of compliance issued for shell buildings. When requested by the building owner, the building official may issue a letter of compliance for shell buildings when he or she determines on final inspections that the building or structure complies with the International Building Code, the provisions of this code, the site plan, if applicable, and other applicable laws.

Section 108.3. Section 108.3 of Section 108 “Board of Appeals” of Chapter 1 “Scope and Administration” of this code is amended to read as follows:

108.3 Qualifications. The provisions of this section shall apply to Chapter 8B in the Irving Land Development Code. There has been established the Construction Board of Appeals consisting of seven (7) members as follows: one (1) interested citizen, one (1) master electrician or electrical contractor, one (1) master plumber or plumbing contractor, one (1) class "A" licensed mechanical (HVAC) contractor or mechanical engineer, one (1) home builder, one (1) representative from the fire protection industry and one (1) licensed architect or engineer. The board members shall be residents of the city and shall be appointed by the city council. The building official and the fire chief are ex officio members of the board.

Section 109.4. Section 109.4 of Section 109 “Violations” of Chapter 1 “Scope and Administration” of this code is amended to read as follows:

109.4 Violation penalties. The penalty for a violation of this code shall be between $1.00 and $500.00, unless the complaint alleges that the offense was committed intentionally, knowingly or recklessly, in which case, the penalty shall be from $1.00 to $2,000.00. Each day that a violation continues after due notice has been served shall be deemed a separate offense.
Section 111.4 of Section 111 “Stop Work Order” of Chapter 1 “Scope and Administration” of this code is amended to read as follows:

111.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not less than $200 or more than $2,000. Each day that a violation continues after due notice has been served shall be deemed a separate offense.


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

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

1. Dialysis centers
2. Sedation dentistry
3. Surgery centers
4. Colonic centers
5. Psychiatric centers

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

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

[B] BUILDING OFFICIAL. The city manager designee to this position or his or her designated representative.

CARE FACILITY. Any adult or child day care facility, nursery, nursing home, group home, hospital or medical treatment facility or clinic, or other similar structures or uses.

FIRE CHIEF. The chief of the City of Irving Fire Department or a duly authorized representative.

FIRE CODE. The International Fire Code as adopted and amended by the city council.

FIRE DEPARTMENT. The City of Irving Fire Department.

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

HIGH-PILED COMBUSTIBLE STORAGE. Storage of combustible materials in closely packed piles or combustible materials on pallets, in racks or on shelves where the top of storage is greater than 12 feet in height. When required by the fire code official, high-piled combustible storage also includes certain high-hazard commodities, such as rubber tires, Group A plastics, flammable liquids, idle pallets and similar commodities, where the top of storage is greater than 6 feet in height. Any building exceeding 6,000 square feet that has a clear height in excess of 12 feet, making it possible to be used for storage in excess of 12 feet, shall be considered to be high-piled storage and shall comply with the provisions of this section. When a specific product cannot be identified, a fire protection system and life safety features shall be installed as for Class IV commodities, to the maximum pile height.


[BG] Business Group B. Business Group B occupancy includes, among others, the use of a building or structure, or a portion thereof, for office, professional or service-type transactions, including storage or records and accounts. Business occupancies shall include, but not be limited to, the following:

- Airport traffic control towers
- Ambulatory care facilities
- Animal hospitals, kennels, and pounds
- Banks
- Barber and beauty shops
- Car wash
- Civic administration
- Clinic-outpatient
- Dry cleaning and laundries; pick-up and delivery stations and self-service
- Educational occupancies for students above the 12th grade
- Electronic data processing
- Fire stations
- Food processing establishments and commercial kitchens not associated with restaurants, cafeterias and similar dining facilities not more than 2,500 square feet in area
Laboratories: testing and research
Motor vehicle showrooms
Police stations with detention facilities for 5 or less
Post offices
Print shops
Professional services (architects, attorneys, dentists, physicians, engineers, etc.)
Radio and television stations
Telephone exchanges
Training and skill development not within a school or academic program.

**High-hazard Group H.** High-hazard Group H occupancy includes, among others, the use of a building or structure, or a portion thereof, that involves the manufacturing, processing generation or storage of material that constitute a physical or health hazard in quantities in excess of those allowed in control areas complying with Section 5003.8.3, based on maximum allowable quantity limits for control areas set forth in Tables 5003.1.1(1) and 5003.1.1(2). Hazardous occupancies are classified in Groups H-1, H-2, H-3, H-4 and H-5 and shall be in accordance with this code and the requirements of Section 415 of the *International Building Code*. Hazardous materials stored or used on top of roofs or canopies shall be classified as outdoor storage or use and shall comply with this code.

**Exceptions:** The following shall not be classified as Group H, but shall be classified as the occupancy that they most nearly resemble.

1. Buildings and structures occupied for the application of flammable finishes, provided that such buildings or areas conform to the requirements of Chapter 24 of this code and Section 416 of the *International Building Code*.

2. Wholesale and retail sales and storage of flammable and combustible liquids in mercantile occupancies conforming to Chapter 57.

3. Closed piping system containing flammable or combustible liquids or gases utilized for the operation of machinery or equipment.

4. Cleaning establishments that utilize combustible liquid solvents have a flash point of 140°F (60°C) or higher in closed systems employing equipment listed by an approved testing agency, provided that this occupancy is separated from all other areas of the building by 1-hour fire barriers in accordance with Section 707 of the *International Building Code* or 1-hour horizontal assemblies in accordance with Section 711 of the *International Building Code*, or both. (See also Chapter 21, Dry Cleaning, provisions of this code.)

5. Cleaning establishments that utilize a liquid solvent having a flash point at or above 200°F.


7. Refrigeration systems.

8. The storage or utilization of materials for agricultural purposes on the premises.
9. Stationary batteries utilized for facility emergency power, uninterrupted power supply or telecommunication facilities, provided that the batteries are provided with safety venting caps and ventilation is provided in accordance with the *International Mechanical Code*.

10. Corrosives shall not include personal or household products in their original packaging used in retail display or commonly used building materials.

11. Buildings and structures occupied for aerosol storage shall be classified as Group S-1, provided that such buildings conform to the requirements of Chapter 51 of the *International Fire Code*.

12. Display and storage of nonflammable solid and nonflammable or noncombustible liquid hazardous materials in quantities not exceeding the maximum allowable quantity per control area in Groups M or S occupancies complying with Section 414.2.5 of the *International Building Code*.

13. The storage of black powder, smokeless propellant, and small arms primers in Groups M and R-3 and special industrial explosive devices in Groups B, F, M, and S, provided such storage conforms to the quantity limits and requirements prescribed in the *International Fire Code*.

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

- Boarding houses (nontransient) with 16 or fewer occupants
- Boarding houses (transient) with 10 or fewer occupants
- Buildings that do not contain more than 2 dwelling units.
- Adult care facilities that provide accommodations for 5 or fewer persons of any age for less than 24 hours.
- Child care facilities that provide accommodations for 5 or fewer persons of any age for less than 24 hours.
- Congregate living facilities with 16 or fewer persons.
- Lodging Houses with five or fewer guest rooms.
- Adult care and child care facilities with 5 or fewer unrelated persons that are within a single-family home are permitted to comply with the *International Residential Code*.

**MOTOR FUEL CONTAINER.** An LP-gas container mounted on a vehicle to store LP-gas as the fuel supply to an engine used to propel the vehicle.

**MOTOR VEHICLE.** A vehicle, machine, tractor, trailer, or semitrailer propelled or drawn by mechanical power and used on a highway. The phrase does not include a vehicle, machine, tractor, trailer, or semitrailer operated exclusively on a rail.
NFPA. The National Fire Protection Association Codes and Standards.

PYROTECHNIC OPERATOR. An individual possessing a current State of Texas pyrotechnic license and approved by the fire code official to be responsible for pyrotechnics, pyrotechnic special effects materials, or both.

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

RESIDENTIAL AREA. A lot or tract of land zoned R-40, R-15, R-10, R-7.5, R-6, R-6A, R-3.5, R-2.5, R-MF, R-MF-1, R-MF-2, R-TH, R-MH, R-XF, R-PH, R-ZL, R-ZLa, R-SFA, PUD, M-FW, or S-P-1 or S-P-2 for residential purposes under the City of Irving Comprehensive Zoning Ordinance and any other lot or tract of land, regardless of its zoning, special or overlay district, upon which there is located at least one dwelling unit.

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

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

STANPIPE, TYPES OF.

Manual dry. A dry standpipe system that does not have a permanent water supply attached to the system. Manual dry standpipe systems require water from a fire department pumper to be pumped into the system through the fire department connection in order to meet the system demand. The system must be supervised as specified in Section 905.2.

TRENCH BURNER. A portable device used to introduce air into a pit being used for burning debris, also called an air curtain destructor.

Section 302. Section 302 “Definitions” of Chapter 3 “General Requirements” of this code is amended by adding the definitions of “Approved Signage” and “Grill” to read as follows:

APPROVED SIGNAGE. A sign, placard, or decal no less than 24 square inches in size with bold lettering, contrasting in color to its background no less than ¼ inch high stating, "PROHIBITED THE USE OF ANY GRILL, HIBACHI, OR SMOKER WITHIN 10 FEET OF BUILDING OR OVERHANG IRVING FIRE CODE §2,000 FINE" and with graphics as indicated in the illustrations below:
GRILL. A cooking utensil on which food is exposed directly to red heat or open flame as from heated briquettes, charcoal, electricity, natural gas, propane compressed gas or wood, which is commonly referred to as a barbecue grill, hibachi, or smoker.

Section 307.2. Section 307.2 of Section 307 “Open Burning, Recreational Fires and Portable Outdoor Fireplaces” of Chapter 3 “General Requirements” of this code is amended to read as follows:

307.2 Permit required. A permit shall be obtained from the fire code official in accordance with Section 105.6 prior to kindling a fire for recognized silvicultural or range or wildlife management practices, prevention or control of disease or pests, bonfire, or open burning. Application for such approval shall only be presented by and permits issued to the owner of the land upon which the fire is to be kindled.
Section 307.4. Section 307.4 of Section 307 “Open Burning, Recreational Fires and Portable Outdoor Fireplaces” of Chapter 3 “General Requirements” of this code is amended to read as follows:

307.4 Location. The location for open burning shall not be less than 300 feet from any structure, and provisions shall be made to prevent the fire from spreading to within 300 feet of any structure. Provisions shall be made to prevent the fire from spreading from the approved location.

Section 307. Section 307 “Open Burning, Recreational Fires, and Portable Outdoor Fireplaces” of Chapter 3 “General Requirements” of this code is amended by adding Sections 307.4.4 and 307.4.5 to read as follows:

307.4.4 Permanent outdoor firepit. Permanently installed outdoor firepits for recreational fire purposes shall not be installed within 10 feet of a structure or combustible material.

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

307.4.5 Trench burns. Trench burns shall be conducted in air curtain trenches and in accordance with Sections 307.2 and 307.3.

Section 307.5. Section 307.5 of Section 307 “Open Burning, Recreational Fires and Portable Outdoor Fireplaces” of Chapter 3 “General Requirements” of this code is amended to read as follows:

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

Section 308.1.4. Section 308.1.4 of Section 308 “Open Flames” of Chapter 3 “General Requirements” of this code is amended to read as follows:

308.1.4 Open-flame cooking devices. It is unlawful for any person to construct, erect, install, maintain or use any incinerator, barbecue pit, fixed or portable grill, or other open flame cooking device or burn any combustible material as to constitute or occasion a fire hazard by its use or burning or as to endanger the life or property of any person.

Section 308. Section 308 “Open Flames” of Chapter 3 “General Requirements” of this code is amended by adding Sections 308.1.4.1, 308.1.4.2, 308.1.4.3, 308.1.4.4, and 308.1.4.5 to read as follows:

308.1.4.1. It is unlawful for any person to use or allow or permit to be used a fixed or portable grill in a R-1, R-2 or R-4 occupancy or within 10 feet of any part of a R-1, R-2 or R-4 occupancy or on or under any portion of the structure of a R-1, R-2 or R-4 occupancy.

308.1.4.2. It is unlawful for any person to own or manage R-1, R-2 or R-4 occupancy without installing and maintaining on each balcony and patio of each dwelling unit and guest room approved signage readily visible to the occupants prohibiting the use of any barbecue grill, hibachi or smoker.
308.1.4.3. It is unlawful for any person to own or manage an R-1, R-2 or R-4 occupancy that is designed without patios or balconies without installing and maintaining approved signage in each separate common area.

308.1.4.4. It is unlawful for any person to own or manage an R-1, R-2 or R-4 occupancy without maintaining written proof, available to City of Irving inspectors upon request, that approved signage has been installed on each balcony and patio of every dwelling unit and guest room. Such proof may be in the form of a lease addendum in which the tenant acknowledges that such signage exists, by picture or by other means that would prove that the signage exists.

308.1.4.5. It is unlawful for any person to own or manage an R-1, R-2 or R-4 occupancy without notifying each tenant in writing as part of their lease or as an addendum to their lease at the time the tenant moves in, that such signage exists and must be maintained in place.

Section 308.1.6.3. Section 308.1.6.3 of Section 308 “Open Flames” of Chapter 3 “General Requirements” of this code is amended to read as follows:

308.1.6.3 Sky lanterns. A person shall not release or cause to be released a sky lantern.

Section 311.5. Section 311.5 of Section 311 “Vacant Premises” of Chapter 3 “General Requirements” of this code is amended to read as follows:

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

Section 401.3. Section 401.3 of Section 401 “General” of Chapter 4 “Emergency Planning And Preparedness” of this code is amended to read as follows:

401.3 Emergency responder notification. Notification of emergency responders shall be in accordance with Sections 401.3.1 through 401.3.4.

Section 401.3.1. Section 401.3.1 of Section 401 “General” of Chapter 4 “Emergency Planning And Preparedness” of this code is amended to read as follows:

401.3.1 Fire events. In the event of a fire, the discovery of smoke from an unauthorized or unidentified source, or any situation that would indicate a hazard occurs on property, the owner or occupant shall immediately report such conditions to the fire department.

Section 401. Section 401 “General” of Chapter 4 “Emergency Planning And Preparedness” of this code is amended by adding Section 401.3.4 to read as follows:

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

Section 401.5 of Section 401 “General” of Chapter 4 “Emergency Planning And Preparedness” of this code is amended to read as follows:

401.5 Making false report. It shall be unlawful for a person to give, signal, transmit, or cause to be transmitted a false alarm.
Section 403. Section 403 “Emergency Preparedness Requirements” of Chapter 4 “Emergency Planning And Preparedness” of this code is amended by adding Section 403.1.1 to read as follows:

403.1.1 Drill frequency. Emergency evacuation drills shall be conducted at least 12 times per year, 4 times per year on each shift. Twelve drills shall be conducted in the first year of operation. Drills are not required to comply with the time requirements of Section 405.4.

Section 403.10.3.4. Section 403.10.3.4 of Section 403 “Emergency Preparedness Requirements” of Chapter 4 “Emergency Planning And Preparedness” of this code is amended to read as follows:

403.10.3.4 Drill frequency. Emergency evacuation drills shall be conducted at least 12 times per year, 4 times per year on each shift. Twelve drills shall be conducted in the first year of operation. Drills are not required to comply with the time requirements of Section 405.4.

Section 404. Section 404 “Fire Safety and Evacuation Plans” of Chapter 4 “Emergency Planning And Preparedness” of this code is amended by deleting Section 404.2.2 “Fire safety plans.”

Section 405. Section 405 “Emergency Evacuation Drills” of Chapter 4 “Emergency Planning And Preparedness” of this code is amended by adding Section 405.1.1 to read as follows:

405.1.1 Fire department personnel required to witness drills. Fire department personnel shall be present, and witness, emergency evacuation drills conducted by educational occupancies on the basis of at least one emergency evacuation drill per semester.

Section 501.4. Section 501.4 of Section 501 “General” of Chapter 5 “Fire Service Features” of this code is amended to read as follows:

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

Section 502.1. Section 502.1 of Section 502 “Definitions” of Chapter 5 “Fire Service Features” of this code is amended by adding the following definitions:

CONTROLLED ACCESS GATE. A device located on public or private property which controls or restricts access by motor vehicles or persons or both. The term includes, but is not limited to, metal or wooden swing railings, metal or wooden rolling or sliding railings and drop arm type railings extending across public or private streets or fire lanes whether manually operated or motorized.

LIGHT DUTY METAL CHAIN. A chain with metal links no larger than ¼-inch in diameter. This term does not include high test proof coil chains or other heat tempered chains of any size.

OWNER. A natural person, corporation, partnership, association or any other similar entity who has care, custody or control of the premises.

MAIN GATE. A security gate located on public or private property where more than one security gate exists and which has been designated in writing by the owner to the police department, fire department and code enforcement as the main access to the property.
APPROVED PADLOCK. A Knox padlock which has been dual keyed for the Irving Fire and Police Departments.

Section 503.1.1. Section 503.1.1 of Section 503 “Fire Apparatus Access Roads” of Chapter 5 “Fire Service Features” of this code is 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 of all portions of the facility and all portions of the exterior wall of the first story of the building as measured by an approved route around the exterior of the building or facility. Except for single- or two-family residences, the path of measurement shall be along a minimum of a 10 foot wide unobstructed pathway around the external walls of the structure. The owner of the building or facility shall submit an 8-½” x 11” site plan showing the fire lanes and foot print of the building to the fire department for approval prior to permits being issued for the building or facility. Approved fire lane site plans shall be kept on file with the fire department. Any fire lane that has been established prior to the adoption of this code, or that was established by separate ordinance or approval of a fire lane site plan, is a fire lane for all intents and purposes and shall be maintained as required by this code, whether or not it meets the minimum requirements of a fire lane. In addition, the chief may designate a fire lane when the ingress or egress of a new or existing piece of property is not adequate for fire department apparatus.

Exception: The fire code official is authorized to increase the dimension of 150 feet where:

1. 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.

2. Fire apparatus access roads cannot be installed due to location on property, topography, waterways, non-negotiable grades or other similar conditions, and an approved alternative means of fire protection is provided.

3. There are not more than two Group R-3 or Group U occupancies.

Section 503.2. Section 503.2 of Section 503 “Fire Apparatus Access Roads” of Chapter 5 “Fire Service Features” of this code is amended to read as follows:

503.2 Specifications. Fire apparatus access roads shall be installed and arranged in accordance with Sections 503.2.1 through 503.2.8 and Appendix D, as amended.

Section 503.2.1. Section 503.2.1 of Section 503 “Fire Apparatus Access Roads” of Chapter 5 “Fire Service Features” of this code is amended to read as follows:

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

Section 503.2.2. Section 503.2.2 of Section 503 “Fire Apparatus Access Roads” of Chapter 5 “Fire Service Features” of this code is amended to read as follows:
503.2.2 Authority. The fire code official shall have the authority to require an increase in the minimum access widths and vertical clearances where they are inadequate for fire or rescue operations.

Section 503.3. Section 503.3 of Section 503 “Fire Apparatus Access Roads” of Chapter 5 “Fire Service Features” of this code is amended to read as follows:

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

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

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

Section 503.4. Section 503.4 of Section 503 “Fire Apparatus Access Roads” of Chapter 5 “Fire Service Features” of this code is amended to read as follows:

503.4 Obstruction of fire apparatus access roads. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in Section 503.2.1 and any area marked as a fire lane as described in Section 503.3 shall be maintained at all times. It is unlawful for any person to park, stop, or leave standing any non-emergency vehicle within any area specifically designated as a fire apparatus access road. The owner or person in control of the property upon which a fire apparatus access road exists shall cause any motor vehicle, other than an authorized emergency vehicle, that is parked in the fire lane to be removed in compliance with applicable laws. It is an affirmative defense to this section that written approval has been obtained from the fire department for closure of one-half the width of the fire apparatus access road while repairing the surface of the road.

Exception: An approved controlled access gate meeting all the requirements of all applicable city codes.

Section 503.6. Section 503.6 of Section 503 “Fire Apparatus Access Roads” of Chapter 5 “Fire Service Features” of this code is amended to read as follows:

503.6 Controlled access gates. It is unlawful for any owner or other person in control of public or private property to have a controlled access gate located on or restricting access to his or her property unless the gate is in compliance with the following:
1. Gates consisting of a single wooden railing that pivots vertically to allow passage of vehicles shall be so constructed and maintained to break away on minor impact or on application of manual pressure at the end most remote from the pivot point. The wooden railings shall be of soft wood and mounted on the pivot point with a knife edge bracket or otherwise scored to create a weak point that will break away when pressure is applied. The opening motors shall be connected to an approved radio receiver as described in Item 5 below.

2. Horizontal swinging gates shall open manually using an approved padlock. Each gate shall have a pin that has the capability of being secured with the approved padlock installed on the end of the operating arm closest to the gate. If no operating arms are installed, then a light duty metal chain and approved padlock shall be used to secure the gate. If provided, the opening motors of each gate shall be connected to an approved radio receiver as described in #5 below.

3. Rolling or sliding type gates shall not be installed in residential communities. Rolling or sliding type gates shall have an approved locking box mounted on the gate. The box shall open from both sides of the gate. This box shall be painted red and the word “FIRE” shall be lettered on the exterior of the box. There shall be a T-type handle attached to a cable release inside the box. When pulled, the cable shall disengage all opening mechanisms allowing the gate to be opened manually. This box shall be secured with an approved padlock. The opening motors of each gate shall be connected to an approved radio receiver as described in Item 5 below.

**Exception:** One- and two-family dwellings.

4. Personnel gates required for emergency access shall be equipped with an access door no smaller than 18” x 18” that is secured by an approved padlock. The inside latching mechanism shall not be more than 12 inches from the edge of the access door. If the personnel gate is for emergency use only, the door may be secured with an approved padlock accessible from both sides of the gate and no other latching hardware.

5. All motorized gates shall be equipped with an approved radio receiver and related equipment as follows:

   a. A 6 channel minimum modular receiver with an external antenna that has a frequency approved by the code official. Each digital channel module shall be preset to a specific digital code approved by the code official.

   b. The receiver shall be equipped with an external, weatherproof antenna assembly.

   c. The antenna shall be located so that it will receive a clear signal from the transmitter when operated from inside a vehicle at a distance of at least 30 feet from the gate.

   d. The signal from the receiver to the operating motor shall override all other opening systems.

   e. The receiver shall be protected from weather and physical damage.

   f. The receiver shall be connected to an external wall mounted lamp assembly that is located at each gate. The lamp assembly shall be visible to all approaching vehicle traffic and equipped with a red globe and flasher wired so that the bulb flashes when the gate has been opened by the radio receiver.
6. When activated by the radio receiver, the gate shall operate at a minimum speed of one foot per second and remain open until the property agent has been instructed by an Irving Police or Fire Department Officer that the gate may resume normal functioning, or the gate has been closed by the Irving Police or Fire Department.

Section 503. Section 503 “Fire Apparatus Access Roads” of Chapter 5 “Fire Service Features” of this code is amended by adding Section 503.6.1 to read as follows:

503.6.1. Installation of controlled access gates. Prior to the installation of a controlled access gate, the owner or person in control of the property on which a controlled access gate will be located shall submit plans for the proposed gate to the Irving Fire Department and all other applicable City Departments for review, and obtain a controlled access gate permit from the City of Irving Inspections Department. The plans shall include a site plan of the entire property, a description of the gate, and a description of the proposed operating system. When the plans have been approved by the Fire Department and other City departments, a permit will be issued if the application and corresponding forms are complete and the applicable permit fee is paid. The gate shall not be placed into operation until it has been tested and approved by the fire department and inspections department for the City of Irving.

Section 507.1. Section 507.1 of Section 507 “Fire Protection Water Supplies” of Chapter 5 “Fire Service Features” of this code is amended to read as follows:

507.1 Required water supply. An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings, portions of buildings, exterior storage areas, or exterior dispensing or use areas, are hereafter constructed or moved into or within the jurisdiction.

Section 507.5.1 of Section 507 “Fire Protection Water Supplies” of Chapter 5 “Fire Service Features” of this code is amended to read as follows:

507.5.1 Where required. Where a portion of the facility, building, exterior storage, or exterior dispensing or use area, hereafter constructed or moved into or within the jurisdiction is more than 400 feet from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility, building, exterior storage area, or exterior dispensing or use area, on-site fire hydrants and mains shall be provided where required by the fire code official. When a dead-end fire main exceeds 300 feet in length, the fire main shall be either up-sized or the main shall be looped and a second connection to the City main shall be made to meet the required fire flow. A fire hydrant shall be located within 100 feet of all fire department connections. Fire hydrants required for on-site use shall be located a minimum of 35 feet from the centerline of either an inside or outside curve, corner or “T” intersection of the fire apparatus access roadway and a minimum of 18 inches and a maximum of 3 feet from the back of the curb, the edge of the paving, the outside edge of the fire lane striping or as otherwise approved by the fire code official.

Exceptions:

1. For Group R-3 and Group U occupancies, the distance requirement shall be 500 feet.

2. For buildings equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the distance requirement shall not be more than 500 feet.
Section 507.5.3. Section 507.5.3 of Section 507 “Fire Protection Water Supplies” of Chapter 5 “Fire Service Features” of this code is amended to read as follows:

507.5.3 Private fire service mains and water tanks. Private fire service mains and water tanks shall be periodically inspected, tested and maintained in accordance with NFPA 25. It shall be the duty of the property owner to insure that all required maintenance is performed and provide record of such maintenance to the fire department. The testing shall be conducted by a third party, state-certified contractor. Records of inspections, testing and maintenance shall be maintained by the property owner for a period of 7 years. Inspections, testing and maintenance of private fire service mains and water tanks shall occur at the following intervals:

1. Private fire hydrants of all types shall be inspected and maintained annually and after each operation; flow tests shall also be conducted annually.

2. Exposed fire service main piping shall be inspected annually. Additionally, a flow test shall be conducted every 5 years.

3. Fire service main piping strainers shall be inspected and maintained after each use.

Section 507.5.4. Section 507.5.4 of Section 507 “Fire Protection Water Supplies” of Chapter 5 “Fire Service Features” of this code is amended to read as follows:

507.5.4 Obstruction. Unobstructed access to fire hydrants shall be maintained at all times. Posts, fences, vehicles, growth, trash, storage and other material or objects shall not be placed or kept near fire hydrants, fire department inlet connections, or fire protection system control valves in a manner that would prevent such equipment or fire hydrants from being immediately discernible. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants.

Section 509. Section 509 “Fire Protection And Utility Equipment Identification and Access” of Chapter 5 “Fire Service Features” is amended by adding Section 509.1.2 to read as follows:

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

Section 603.3.2.1. Section 603.3.2.1 of Section 603 “Fuel-Fired Appliances” of Chapter 6 “Building Services and Systems” of this code is amended to read as follows:

603.3.2.1 Quantity limits. One or more fuel oil storage tanks containing Class II or III combustible liquid shall be permitted in a building. The aggregate capacity of all such tanks shall not exceed 660 gallons.

Exception: The aggregate capacity limit shall be permitted to be increased to 3,000 gallons in accordance with all requirements of Section 5704.2.9.7 and Chapter 34.

Section 704.1 of Section 704 “Floor Openings and Shafts” of Chapter 7 “Fire And Smoke Protection Features” of this code is amended to read as follows:
704.1 Enclosure. Interior vertical shafts, including, but not limited to, stairways, elevator hoistways, service and utility shafts, that connect 2 or more stories of a building shall be enclosed or protected in accordance with the codes in effect at the time of construction but, regardless of when constructed, not less than as required in Chapter 11. New floor openings in existing buildings shall comply with the International Building Code.

Section 901.7. Section 901.7 of Section 901 “General” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

901.7 Systems out of service. Where a required fire protection system is out of service or in the event of an excessive number of accidental activations, the fire department and the fire code official shall be notified immediately and, where required by the fire code official, the building shall either be evacuated or an approved fire watch shall be provided for all occupants left unprotected by the shut down until the fire protection system has been returned to service. Where utilized, fire watches shall be provided with at least 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. Approved fire watches shall meet all the following criteria:

1. At least 21 years of age;
2. Capable of effectively communicating the need for a fire department response; and
3. Physically capable to perform patrols and self-preservation.

Section 901.9. Section 901.9 of Section 901 “General” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

901.9 Termination or change of service. Notice shall be made to the fire code official whenever contracted alarm services for monitoring of any fire alarm system is terminated for any reason, or a change in alarm monitoring provider occurs. Notice shall be made in writing to the fire code official by the building owner and alarm service provider prior to the service being terminated.

Section 903. Section 903 “Automatic Sprinkler Systems” of Chapter 9 “Fire Protection Services” of this code is amended by adding Section 903.1.2 to read as follows:

903.1.2 Residential systems. Unless an exception or reduction is specifically allowed by this code or the International Building Code, residential sprinkler systems installed in accordance with NFPA 13D or NFPA 13R shall not be recognized for the purposes of exceptions or reductions, commonly referred to as “trade-offs,” permitted by other requirements of this code.

Section 903.2.1.1. Section 903.2.1.1 of Section 903 “Automatic Sprinkler Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

903.2.1.1 Group A-1. An automatic sprinkler system shall be provided for Group A-1 occupancies where one of the following conditions exists:

1. The fire area exceeds 12,000 square feet;
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 servicing such occupancies;

4. The fire area contains a multi-theater complex; or

5. A new building or addition that exceeds 6,000 square feet.

Section 903.2.1.2. Section 903.2.1.2 of Section 903 "Automatic Sprinkler Systems" of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

903.2.1.2 Group A-2. An automatic sprinkler system shall be provided for Group A-2 occupancies where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet;

2. The fire area has an occupant load of 100 or more;

3. The fire area is located on a floor other than a level of exit discharge serving such occupancies; or

4. A new building or addition that exceeds 5,000 square feet.

Section 903.2.1.3. Section 903.2.1.3 of Section 903 “Automatic Sprinkler Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

903.2.1.3 Group A-3. An automatic sprinkler system shall be provided for Group A-3 occupancies where one of the following conditions exists:

1. The fire area exceeds 12,000 square feet;

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; or

4. A new building or addition that exceeds 6,000 square feet.

Section 903.2.1.4. Section 903.2.1.4 of Section 903 “Automatic Sprinkler Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

903.2.1.4 Group A-4. An automatic sprinkler system shall be provided for Group A-4 occupancies where one of the following conditions exists:

1. The fire area exceeds 12,000 square feet;

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; or
4. A new building or addition that exceeds 6,000 square feet.

*Section 903.2.3.* Section 903.2.3 of Section 903 “Automatic Sprinkler Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

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

1. Throughout all Group E fire areas greater than 12,000 square feet in area.

2. Throughout every portion of educational buildings below the lowest level of exit discharge serving that portion of the building.

*Exception:* An automatic sprinkler system is not required in any fire area or area below the level of exit discharge where every classroom throughout the building has at least one exterior exit door at ground level.

3. A new building or addition that exceeds 6,000 square feet.

*Section 903.2.4.* Section 903.2.4 of Section 903 “Automatic Sprinkler Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

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

1. A Group F-1 fire area exceeds 12,000 square feet.

2. A Group F-1 fire area is located more than three stories above grade plane.

3. The combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 24,000 square feet.

4. A new building or addition that exceeds 6,000 square feet.

5. A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet.

*Section 903.2.6.* Section 903.2.6 of Section 903 “Automatic Sprinkler Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

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

*Exception:* An automatic sprinkler system installed in accordance with Section 903.3.1.2 or 903.3.1.3 shall be allowed in Group I-1 Residential Board and Care facilities not otherwise required to comply with NFPA 13. Sprinkler systems must provide complete sprinkler protection in all living areas, sleeping areas, closets, bathrooms, hallways, stairways, meeting and community rooms, and similar areas and be enhanced with a fire department connection, attic
protection, and monitoring by a central station, and shall be maintained in proper working
condition at all times the facility is occupied by any person.

Section 903.2.7. Section 903.2.7 of Section 903 “Automatic Sprinkler Systems” of Chapter 9 “Fire
Protection Systems” of this code is amended to read as follows:

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

1. A Group M fire area exceeds 12,000 square feet.

2. A Group M fire area is located more than three stories above grade plane.

3. The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds
24,000 square feet.

4. A new building or addition that exceeds 6,000 square feet.

5. A Group M occupancy is used for the display and sale of upholstered furniture or mattress
exceeds 5,000 square feet.

Section 903.2.9. Section 903.2.9 of Section 903 “Automatic Sprinkler Systems” of Chapter 9 “Fire
Protection Systems” of this code is amended to read as follows:

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

1. A Group S-1 fire area exceeds 12,000 square feet.

2. A Group S-1 fire area is located more than three stories above grade plane.

3. The combined area of all Group S-1 fire areas on all floors, including any mezzanines, exceeds
24,000 square feet.

4. The fire area is used for the storage of commercial trucks or buses where the fire area exceeds
5,000 square feet.

5. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds
2,500 square feet.

Section 903.2.9.1. Section 903.2.9.1 of Section 903 “Automatic Sprinkler Systems” of Chapter 9
“Fire Protection Systems” of this code is amended to read as follows:

903.2.9.1 Repair garages. An automatic sprinkler system shall be provided throughout all
buildings used as repair garages in accordance with Section 406 of the International Building
Code, as follows:

1. Buildings having two or more stories above grade plane, including basements, with a fire
area containing a repair garage exceeding 10,000 square feet.
2. Buildings no more than one story above grade plane, with a fire area containing a repair garage exceeding 12,000 square feet.


4. A Group S-1 fire area used for the repair of commercial trucks or buses where the fire area exceeds 5,000 square feet.

5. A new building or addition that exceeds 6,000 square feet.

Section 903. Section 903 “Automatic Sprinkler Systems” of Chapter 9 “Fire Protection Systems” of this code is amended by adding Section 903.2.9.3 to read as follows:

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

Exception: One-story self-service storage facilities not exceeding 6,000 square feet total building area or fire area that have no interior corridors, with a one-hour fire barrier separation wall installed between every storage compartment.

Section 903.2.10. Section 903.2.10 of Section 903 “Automatic Sprinkler Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

903.2.10 Group S-2 enclosed parking garages. An automatic sprinkler system shall be provided throughout buildings classified as enclosed parking garages in accordance with Section 406.6 of the International Building Code as follows:

1. Where the fire area of the enclosed parking garage exceeds 6,000 square feet; or

2. Where the enclosed parking garage is located beneath other groups.

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

Section 903.2.11.3. Section 903.2.11.3 of Section 903 “Automatic Sprinkler Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

903.2.11.3 Buildings more than 35 feet in height. An automatic sprinkler system shall be installed throughout buildings with a floor level, other than penthouses in compliance with Section 1509 of the International Building Code that is located 35 feet or more above the lowest level of fire department vehicle access.

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

Section 903. Section 903 “Automatic Sprinkler Systems” of Chapter 9 “Fire Protection Systems” of this code is amended by adding Sections 903.2.11.7 through 903.2.11.10 to read as follows:

903.2.11.7 High-piled combustible storage. For any building with a clear height exceeding 12 feet, see Chapter 32 to determine if those provisions apply.
903.2.11.8 Spray booths and rooms. New and existing spray booths and spraying rooms shall be protected by an approved automatic fire-extinguishing system.

903.2.11.9 Buildings over 6,000 square feet. An automatic sprinkler system shall be installed throughout all buildings with a building area over 6,000 square feet. For the purpose of this provision, fire walls shall not define separate buildings.

Exceptions:

1. Open parking garages in compliance with Section 406.5 of the International Building Code.

2. Group A-5 occupancies.

903.2.11.10 Building additions over 6,000 square feet or greater than 50 percent of original building area. An automatic sprinkler system shall be installed throughout all buildings with a building addition over 6,000 square feet or if the addition exceeds 50 percent of the original building area. For the purpose of this provision, fire walls shall not define separate buildings.

Section 903. Section 903 “Automatic Sprinkler Systems” of Chapter 9 “Fire Protection Systems” of this code is amended by adding Section 903.2.13 to read as follows:

903.2.13 Where prohibited. Automatic sprinklers shall not be installed in elevator machine rooms, elevator machine spaces, and elevator hoistways. Storage shall not be allowed within the elevator machine room. Signage shall be provided at the entry doors to the elevator machine room indicating “ELEVATOR MACHINERY – NO STORAGE ALLOWED.”

Section 903.3.1.1.1. Section 903.3.1.1.1 of Section 903 “Automatic Sprinkler Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

903.3.1.1.1 Exempt locations. When approved by the fire code official, automatic sprinklers shall not be required in the following rooms or areas where such rooms or areas are protected with an approved automatic fire detection system in accordance with Section 907.2 that will respond to visible or invisible particles of combustion. Sprinklers shall not be omitted from 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, under the direct control of a public utility, separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than 2 hours.

4. Elevator machine rooms, machinery spaces, hoistways.
Section 903.3.1.2 of Section 903 “Automatic Sprinkler Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

903.3.1.2 NFPA 13R sprinkler systems. Where allowed in buildings of Group R, up to and including 4 stories in height but having no floors used for human occupancy more than 55 feet above the lowest level of fire department vehicle access, automatic sprinkler systems shall be installed throughout in accordance with NFPA 13R. However, for the purposes of exceptions or reductions permitted by other requirements of this code, see Section 903.1.2.

Section 903.3.1.2.1. Section 903.3.1.2.1 of Section 903 “Automatic Sprinkler Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

903.3.1.2.1 Attics, open breezeways, balconies, decks and attached garages. Sprinkler protection shall be provided for exterior balconies, balcony closets, open breezeways, exterior stairs, and ground floor patios provided there is a roof or deck above. Side wall sprinklers that are used to protect such areas shall be permitted to be located such that their deflectors are within 1 inch to 6 inches below the structural members, and a maximum distance of 14 inches below the deck of the exterior balconies that are constructed of open wood joist construction. Sprinkler protection is required in attic spaces of such buildings 2 or more stories in height, and attached garages.

Section 903.3.5. Section 903.3.5 of Section 903 “Automatic Sprinkler Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

903.3.5 Water supplies. Water supplies for automatic sprinkler systems shall comply with this section and the standards referenced in Section 903.3.1. The potable water supply shall be protected against backflow in accordance with the requirements of this section and the International Plumbing Code. Water supply as required for automatic sprinkler systems shall be provided in conformance with the supply requirements of the respective standards; however, every fire protection system shall be designed with a 5 psi safety factor.

Section 903.3.7. Section 903.3.7 of Section 903 “Automatic Sprinkler Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

903.3.7 Fire department connections. The number, size, and location of all fire department connections on any fire protection system shall be as approved by the fire code official, and shall meet the following requirements, as applicable:

1. All combined standpipe systems shall be equipped with a minimum of 1 four-way fire department connection.

2. Combined standpipe systems with 3 or more standpipes or any system in excess of 1,000 gpm system demand shall be provided with not less than 2 four-way fire department connections.

3. All fire department connections shall be interconnected in a manner that allows any system in the building to be supplied by any or all of those fire department connections.

4. All high rise buildings shall have not less than 2 four-way fire department connections.
5. All fire department connections shall be located on a street front or fire lane and not less than 18 inches nor more than 4 feet above grade and shall be equipped with approved substantial plugs or caps.

6. All fire department connections shall be protected against mechanical injury and shall be visible and accessible.

7. The location of fire department connections shall be as approved by the fire department, and shall not exceed 45 feet from a dedicated street or approved designated fire lane.

8. In high-rise buildings having 2 or more zones, a minimum of 2 fire department connections shall be provided for each zone.

Section 903.4. Section 903.4 of Section 903 "Automatic Sprinkler Systems" of Chapter 9 "Fire Protection Systems" of this code is amended to read as follows:

903.4 Sprinkler system monitoring and alarms. All valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures, and water-flow switches on all sprinkler systems shall be electrically supervised by a listed fire alarm control unit. Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds and no longer than 90 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering. Preaction solenoid valves shall be of the type that when power is lost or the actuator is removed, the valve will open and introduce water into the sprinkler piping.

Exceptions:

1. Automatic sprinkler systems protecting one- and two-family dwellings.

2. Limited area systems serving fewer than 20 sprinklers.

3. Automatic sprinkler systems installed in accordance with NFPA 13R where a common supply main is used to supply both domestic and automatic sprinkler systems 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.

Section 903.4.2. Section 903.4.2 of Section 903 "Automatic Sprinkler Systems" of Chapter 9 "Fire Protection Systems" of this code is amended to read as follows:
903.4.2 Alarms. Approved audible devices shall be connected to every automatic sprinkler system. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice sized installed in the system. Alarm devices shall be provided on the exterior of the building in an approved location. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system and the alarm device required on the exterior of the building shall be a weatherproof horn/strobe notification appliance with a minimum 75 candela strobe rating, installed as close as practicable to the fire department connection.

Section 903.4.3. Section 903.4.3 of Section 903 “Automatic Sprinkler Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

903.4.3 Floor control valves. Approved supervised indicating control valves shall be provided at the point of connection to the riser on each floor in all buildings 2-stories or more.

Exception: Group R occupancies that are 3 stories or less.

Section 905.2. Section 905.2 of Section 905 “Standpipe Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

905.2 Installation standards. Standpipe system shall be installed in accordance with this section and NFPA 14. Manual, dry standpipe systems shall have a minimum of 10 psig and a maximum of 40 psig air pressure with a high/low alarm supervisory signal sent to an approved fire alarm system.

Section 905. Section 905 “Standpipe Systems” of Chapter 9 “Fire Protection Systems” of this code is amended by adding Section 905.3.9 to read as follows:

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

Exception: Automatic dry and semi-automatic dry standpipes are allowed as provided for in NFPA 14.

Section 905.4. Section 905.4 of Section 905 “Standpipe Systems” of Chapter 9 “Fire Protection Systems” of this code 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 stairway, a hose connection shall be provided for each floor level above or below grade. Hose connections shall be located at the floor level landing, unless otherwise approved by the fire code official.

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 exit stairway hose connections by a 30-foot hose stream from a nozzle attached to 100 feet 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 exit stairway hose connections by a 30-foot hose stream from a nozzle attached to 100 feet 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.

5. Where the roof has a slope less than 4 units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a two-way hose connection located either on the roof or at the highest landing of stairways with stair access to the roof. An additional hose connection shall be provided at the top of the most hydraulically remote standpipe for testing purposes.

6. Where the most remote portion of a nonsprinklered floor or story is more than 150 feet from a hose connection or the most remote portion of a sprinklered floor or story is more than 200 feet from a hose connection, the fire code official is authorized to require that additional hose connections be provided in approved locations.

Section 905. Section 905 “Standpipe Systems” of Chapter 9 “Fire Protection Systems” of this code is amended by deleting Section 905.5 “Location of Class II standpipe hose connections,” Section 905.5.1 “Groups A-1 and A-2,” Section 905.5.2 “Protection,” and Section 905.5.3 “Class II system 1-inch hose.”

Section 905. Section 905 “Standpipe Systems” of Chapter 9 “Fire Protection Systems” of this code is amended by adding Section 905.6.3 to read as follows:

905.6.3 Groups A-1 and A-2. In Group A-1 and A-2 occupancies with occupant loads of more than 1,000 persons, hose connections shall be located on each side of any stage, on each side of the rear of the auditorium, on each side of the balcony, and on each tier of dressing rooms.

Section 905.9. Section 905.9 “Standpipe Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

905.9 Valve supervision. Valves controlling water supplies shall be supervised in the open position so that a change in the normal position of the valve will generate a supervisory signal at the supervising station required by Section 903.4. Where a fire alarm system is provided, a signal shall also be transmitted to the control unit. Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.
Exceptions:

1. Valves to underground key or hub valves in roadway boxes provided by the municipality or public utility do not require supervision.

2. Valves locked in the normal position and inspected as provided in this code in buildings not equipped with a fire alarm system.

Section 907. Section 907 “Fire Alarm And Detection Systems” of Chapter 9 “Fire Protection Systems” of this code is amended by adding Section 907.1.4 to read as follows:

907.1.4 Design standards. All new or replacement alarm systems serving 50 or more alarm actuating devices shall be addressable fire detection systems. Alarm systems serving more than 75 smoke detectors or more than 200 total alarm activating devices shall be analog intelligent addressable fire detection systems.

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

Section 907.2.1. Section 907.2.1 of Section 907 “Fire Alarm and Detection Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

907.2.1 Group A. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies having an occupant load of 300 or more persons or more than 100 persons above or below the lowest level of exit discharge. Group A occupancies not separated from one another in accordance with Section 707.3.10 of the International Building Code shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy. Activation of fire alarm notification appliances shall stop any conflicting or confusing sounds and visual distractions.

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

Section 907.2.3. Section 907.2.3 of Section 907 “Fire Alarm and Detection Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

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

1. A manual fire alarm system is not required in Group E educational and day care occupancies with an occupant load of less than 50 when provided with an approved automatic sprinkler system.

   1.1 Residential in-home day care with not more than 12 children may use interconnected single station detectors in all habitable rooms; however, for care of more than five children 2 1/2 or less years of age, see Section 907.2.6.

2. Manual fire alarm boxes are not required in Group E occupancies where all the following apply:

   2.1. Interior corridors are protected by smoke detectors with alarm verification.

   2.2. Auditoriums, cafeterias, gymnasiums and similar areas are protected by heat detectors or other approved detection devices.

   2.3. Shops and laboratories involving dusts or vapors are protected by heat detectors or other approved detection devices.

   2.4. Off-premises monitoring is provided.

   2.5. The capability to activate the evacuation signal from a central point is provided.

   2.6. In buildings where normally occupied spaces are provided with a two-way communication system between such spaces and a constantly attended receiving station from where a general evacuation alarm can be sounded, except in locations specifically designated by the fire code official.

3. Manual fire alarm boxes shall not be required in Group E occupancies where the building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, the notification appliances will activate on sprinkler water flow and manual activation is provided from a normally occupied location.

Section 907.2.13. Section 907.2.13 of Section 907 “Fire Alarm and Detection Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

907.2.13 High-rise buildings. Buildings with a floor used for human occupancy located more than 75 feet above the lowest level of fire department vehicle access shall be provided with an automatic smoke detection system in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Section 907.2.22 and Section 412 of the International Building Code.
2. Open parking garages in accordance with Section 406.5 of the *International Building Code*.

3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the *International Building Code* when used for open air seating; however, this exception does not apply to accessory uses, including, but not limited to, sky boxes, restaurants and similarly enclosed areas as defined by the *International Building Code*.

4. Low-hazard special occupancies in accordance with Section 503.1.1 of the *International Building Code*.

5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415 of the *International Building Code*.

6. In Group I-1 and I-2 occupancies, the alarm shall sound at a constantly attended location and general occupant notification shall be broadcast by the emergency voice/alarm communication system.

*Section 907.3.* Section 907.3 of Section 907 “Fire Alarm And Detection Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

**907.3 Fire safety functions.** Automatic fire detectors utilized for the purpose of performing fire safety functions shall be connected to the building’s fire alarm control panel where a fire alarm system is required by Section 907.2. Detectors shall, upon actuation, perform the intended function and activate the alarm notification appliances or activate a visible and audible supervisory signal at a constantly attended location. In buildings not required to be equipped with a fire alarm system, the automatic fire detector shall be powered by normal electrical service and, upon actuation, perform the intended function. The detectors shall be located in accordance with NFPA 72. Elevator recall shall be initiated by automatic fire detectors located in the elevator lobby.

*Section 907.4.2.* Section 907.4.2 of Section 907 “Fire Alarm and Detection Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

**907.4.2 Manual fire alarm boxes.** Where a manual fire alarm system is required by another section of this code, it shall be activated by fire alarm boxes installed in accordance with Sections 907.4.2.1 through 907.4.2.6.

*Section 907.* Section 907 “Fire Alarm And Detection Systems” of Chapter 9 “Fire Protection Systems” of this code is amended by adding Section 907.4.2.7 to read as follows:

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

*Section 907.* Section 907 “Fire Alarm and Detection Systems” of Chapter 9 “Fire Protection Systems” of this code is amended by adding 907.6.1.1 to read as follows:

**907.6.1.1 Installation.** All fire alarm systems shall be installed in such a manner that the failure of any single initiating device or single open in an initiating circuit conductor will not interfere with the normal operation of any other such devices. All initiating circuit conductors shall be Class “A” wired with a minimum of 6 feet separation between supply and return circuit conductors. IDC – Class “A”; SLC – Class “A” Style 6; NAC – Class “B”.
Section 907.6.4.1. Section 907.6.4.1 of Section 907 “Fire Alarm And Detection Systems” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

907.6.4.1 Zoning indicator panel. When 2 or more alarm zones are required, there shall be a remote zoning indicator panel installed inside the main entrance of all buildings, in a location approved by the fire chief. The visual zone indication shall lock in until the system is reset and shall not be canceled by the operation of the audible-alarm silencing switch. When duct detectors are installed, readily visible indicator lights in the immediate area of the detector shall be required.

Exception: A zoning indicator panel is not required when the main control unit is approved to be installed inside the main entrance of the building or when the monitoring system is for the fire sprinkler system only.

Section 907.6.6.3. Section 907 “Fire Alarm and Detection Systems” of Chapter 9 “Fire Protection Systems” of this code is amended by adding Section 907.6.6.3 to read as follows:

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

Section 910.3.2. Section 910.3.2 of Section 910 “Smoke and Heat Removal” of Chapter 9 “Fire Protection Systems” of this code is amended by adding Sections 910.3.2.1, 910.3.2.2 and 910.3.2.3 to read as follows:

910.3.2.1 Vent operation. Smoke and heat vents shall be capable of being operated by approved manual means only.

910.3.2.2 Sprinklered buildings. Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall be designed to operate manually.

910.3.2.3 Nonsprinklered buildings. Where installed in buildings not equipped with an approved automatic sprinkler system, smoke and heat vents shall operate manually.

Exception: Gravity-operated drop out vents complying with Section 910.3.2.1.

Section 913.1. Section 913.1 of Section 913 “Fire Pumps” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

913.1 General. Where provided, fire pumps shall be installed in accordance with this section and NFPA 20. When located on the ground level at an exterior wall, the fire pump room shall be provided with an exterior fire department access door that is not less than 3 feet in width and 6 feet 8 inches in height, regardless of any interior doors that are provided. A key box shall be provided at this door, as required by Section 506.1.
**Exception:** When it is necessary to locate the fire pump room on other levels or not at an exterior wall, the corridor leading to the fire pump room access from the exterior of the building shall be provided with equivalent fire resistance as that required for the pump room, or as approved by the fire code official. Access keys shall be provided in the key box as required by Section 506.1.

*Section 913.4.* Section 913.4 of Section 913 “Fire Pumps” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

**913.4 Valve supervision.** Where provided, the fire pump suction, discharge and bypass valves, and the isolation valves on the backflow prevention device or assembly shall be supervised open by one of the following methods:

1. Central-station, proprietary, or remote station signaling service.

2. Local signaling service that will cause the sounding of an audible signal at a constantly attended location.

3. Locking valves open.

4. Sealing of valves and approved weekly recorded inspection where valves are located within fenced enclosures under the control of the owner.

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

*Section 915.5.3.* Section 915.5.3 of Section 915 “Carbon Monoxide Detection” of Chapter 9 “Fire Protection Systems” of this code is amended to read as follows:

**915.5.3 Combination detectors.** When more than one carbon monoxide alarm is required to be installed within an individual dwelling unit, the alarm devices shall be interconnected in such a manner that the actuation 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. Combination carbon monoxide/smoke detectors installed in carbon monoxide detection systems shall be an acceptable alternative to carbon monoxide detectors, provided they are listed in accordance with UL 2075 and UL 268.

*Section 1004.1.2.* Section 1004.1.2 of Section 1004 “Occupant Load” of Chapter 10 “Means of Egress” of this code is amended to read as follows:

**1004.1.2 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 1004.1.2. 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 per unit of area factor assigned to the occupancy as set forth in Table 1004.1.2. Where an intended use is not listed in Table 1004.1.2, the building official shall establish a use based on a listed use that most nearly resembles the intended use.

*Section 1009.1.* Section 1009.1 of Section 1009 “Accessible Means of Egress” of Chapter 10 “Means of Egress” of this code is amended to read as follows:
1009.1 Accessible means of egress required. Accessible means of egress shall comply with this section. Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress are required by Section 1006.2 or 1006.3 from any accessible space, each accessible portion of the space shall be served by not less than two accessible means of egress.

Exceptions:

1. Accessible means of egress are not required in alterations to existing buildings.

2. One accessible means of egress is required from an accessible mezzanine level in accordance with Section 1009.3, 1009.4, or 1009.5.

3. In assembly areas with sloped or stepped aisles, one accessible means of egress is permitted where the common path of travel is accessible and meets the requirements in Section 1029.8.

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

Section 1010.1.9.3. Section 1010.1.9.3 of Section 1010 “Doors, Gates And Turnstiles” of Chapter 10 “Means of Egress” of this code is amended to read as follows:

1010.1.9.3 Locks and latches. Locks and latches shall be permitted to prevent operation of doors where any of the following exists:

1. Places of detention or restraint.

2. In buildings in occupancy Group A having an occupant load of 300 or less, Groups B, F, M, and S, and in places of religious worship, the main exterior door or doors are permitted to be equipped with key-operated locking devices from the egress side provided:

   2.1. The locking device is readily distinguishable as locked;

   2.2. A readily visible durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED. The sign shall be in letters 1 inch high on a contrasting background; and

   2.3. The use of the key-operated locking device is revocable by either the building official or the fire code official for due cause.
3. Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts has no doorknob or surface-mounted hardware.

3.1. Where egress doors are used in pairs and positive latching is required, approved automatic flush bolts shall be permitted to be used, provided that both leaves achieve positive latching regardless of the closing sequence and the door leaf having the automatic flush bolts has no doorknobs or surface-mounted hardware.

4. Doors from individual dwelling or sleeping units of Group R occupancies having an occupant load of 10 or less are permitted to be equipped with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of a key or tool.

5. Fire doors after the minimum elevated temperature has disabled the unlatching mechanism in accordance with listed fire door test procedures.

Section 1010.1.9.4. Section 1010.1.9.4 of Section 1010 “Doors, Gates and Turnstiles” of Chapter 10 “Means Of Egress” of this code is amended to read as follows:

1010.1.9.4 Bolt locks. Manually operated flush bolts or surface bolts are not permitted.

Exceptions:

1. On doors not required for egress in individual dwelling units or sleeping units.

2. Where a pair of doors serves a storage or equipment room, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf.

3. Where a pair of doors serves an occupant load of less than 50 persons in a Group B, F, M, or S occupancy, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf. The inactive leaf shall contain no doorknobs, panic bars or similar operating hardware.

4. Where a pair of doors serves a Group B, F, M, or S occupancy, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf provided such inactive leaf is not needed to meet egress width requirements and the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. The inactive leaf shall contain no doorknobs, panic bars or similar operating hardware.

5. Where a pair of doors serves patient care rooms in Group I-2 occupancies, self-latching edge- or surface-mounted bolts are permitted on the inactive leaf provided that the inactive leaf is not needed to meet egress width requirements and the inactive leaf contains no doorknobs, panic bars or similar operating hardware.

Section 1010.1.9.7. Section 1010.1.9.7 of Section 1010 “Doors, Gates and Turnstiles” of Chapter 10 “Means Of Egress” of this code is amended to read as follows:
1010.1.9.7 Delayed egress locks. Approved, listed, delayed egress locks shall be permitted to be installed on doors serving any occupancy except Group A, E and H occupancies in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors unlock in accordance with Items 1 through 7 below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an exit.

1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.

2. The doors unlock upon loss of power controlling the lock or lock mechanism.

3. The door locks shall have the capability of being unlocked by a signal from the fire command center.

4. The initiation of an irreversible process which will release the latch in not more than 15 seconds when a force of not more than 15 pounds (67 N) is applied for 1 second to the release device. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the door lock has been released by the application of force to the releasing device, relocking shall be by manual means only.

   **Exception:** Where approved, a delay of not more than 30 seconds is permitted.

5. A sign shall be provided on the door located above and within 12 inches of the release device reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.

6. Emergency lighting shall be provided at the door.

7. Release device shall be panic hardware.

*Section 1017.* Section 1017 “Exit Access Travel Distance” of Chapter 10 “Means of Egress” of this code is amended by adding Section 1017.4 to read as follows:

1017.4 Roof vent increase. In buildings that are one story in height, equipped with manual heat and smoke roof vents complying with Section 910 and equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the maximum exit access travel distance shall be 400 feet for occupancies in Group F-1 or S-1.

*Section 1020.1.* Section 1020.1 of Section 1020 “Corridors” of Chapter 10 “Means Of Egress” of this code is amended to read as follows:

1020.1 Construction. Corridors shall be fire-resistance rated in accordance with Table 1020.1. The corridor walls required to be fire-resistance rated shall comply with Section 708 of the International Building Code for fire partitions.
Exceptions:

1. A fire-resistance rating is not required for corridors in an occupancy in Group E where each room that is used for instruction has at least one door opening directly to the exterior and rooms for assembly purposes have at least one-half of the required means of egress doors opening directly to the exterior. Exterior doors specified in this exception are required to be at ground level.

2. A fire-resistance rating is not required for corridors contained within a dwelling or sleeping unit in an occupancy in Group R.

3. A fire-resistance rating is not required for corridors in open parking garages.

4. A fire-resistance rating is not required for corridors in an occupancy in Group B which is a space requiring only a single means of egress complying with Section 1006.2.

5. In Group B office buildings, corridor walls and ceilings need not be of fire-resistive construction within office spaces of a single tenant when the space is equipped with an approved automatic smoke-detection system within the corridor. The actuation of any detector shall activate alarms audible in all areas served by the corridor. The smoke-detection system shall be connected to the building’s fire alarm system where such a system is provided.

Section 1023.2. Section 1023.2 of Section 1023 “Interior Exit Stairways and Ramps” of Chapter 10 “Means Of Egress” of this code is amended to read as follows:

1023.2 Construction. Interior exit stairways and interior exit ramps shall be enclosed with 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. Exit enclosures shall have a fire-resistance rating of not less than 2 hours where connecting 4 stories or more and not less than 1 hour where connecting less than 4 stories. The number of stories connected by the exit enclosure shall include any basements but not any mezzanines. Exit enclosures shall have a fire-resistance rating not less than the floor assembly penetrated, but need not exceed 2 hours. Exit enclosures shall lead directly to the exterior of the building or shall be extended to the exterior of the building with an exit passageway conforming to the requirements of Section 1025, except as permitted in Section 1029.1. An exit enclosure shall not be used for any purpose other than means of egress.

Exceptions:

1. In all occupancies, other than Group H and I occupancies, a stairway is not required to be enclosed when the stairway serves an occupant load of less than 10 and the stairway complies with either Item 1.1 or 1.2. In all cases, the maximum number of connecting open stories shall not exceed two.

1.1. The stairway is open to not more than one story above its level of exit discharge; or

1.2. The stairway is open to not more than one story below its level of exit discharge.
2. Exits in buildings of Group A-5 where all portions of the means of egress are essentially open to the outside need not be enclosed.

3. Stairways serving and contained within a single residential dwelling unit or sleeping unit in Group R-1, R-2, or R-3 occupancies are not required to be enclosed.

4. Stairways in open parking structures that serve only the parking structure are not required to be enclosed.

5. Stairways in Group I-3 occupancies, as provided in Section 408.3.8 of the *International Building Code*, are not required to be enclosed.

6. Means of egress stairways as required by Section 1016 of this code and Section 410 of the *International Building Code* are not required to be enclosed.

7. Means of egress staircases from balconies, galleries, or press boxes as provided for in Section 1030.5.1 are not required to be enclosed.

8. In other than occupancies Groups H and I, a maximum of 50 percent of egress stairways serving one adjacent floor are not required to be enclosed, provided at least two means of egress are provided from both floors served by the unenclosed stairways. Any two such interconnected floors shall not be open to other floors.

9. In other than occupancies Group H and I, interior egress stairways serving only the first and second stories of a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 are not required to be enclosed, provided at least two means of egress are provided from both floors served by the unenclosed stairways. Such interconnected stories shall not be open to other stories.

Section 1027.6. Section 1027.6 of Section 1027 “Exterior Exit Stairways And Ramps” of Chapter 10 “Means of Egress” of this code is amended to read as follows:

1027.6 Exterior ramps and stairway protection. Exterior exit ramps and stairways shall be separated from the interior of the building as required in Section 1023.2. Openings shall be limited to those necessary for egress from normally occupied spaces.

Exceptions:

1. Separation from the interior of the building is not required for occupancies, other than those in Group R-1 or R-2, in buildings that are no more than 2 stories above grade plane where a level of exit discharge serving such occupancies is the first story above grade plane.

2. Separation from the interior of the building is not required where the exterior ramp or stairway is served by an exterior ramp or balcony that connects 2 remote exterior stairways or other approved exits, with a perimeter that is not less than 50 percent open. To be considered open, the opening shall be a minimum of 50 percent of the height of the enclosing wall, with the top of the openings no less than 7 feet above the top of the balcony.
3. Separation from the open-ended corridors of the building is not required for an exterior ramp or stairway located in a building or structure that is permitted to have unenclosed interior stairways in accordance with Section 1023.2.

4. Separation from the interior of the building is not required for exterior ramps or stairways connected to open-ended corridors, provided that Items 4.1 through 4.4 are met:

   4.1. The building, including corridors, ramps, and stairs, shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

   4.2. The open-ended corridors comply with Section 1020.

   4.3. The open-ended corridors are connected on each end to an exterior exit ramp or stairway complying with Section 1027.

   4.4. At any location in an open-ended corridor where a change of direction exceeding 45 degrees occurs, a clear opening of not less than 35 square feet or an exterior ramp or stairway shall be provided. Where clear openings are provided, they shall be located so as to minimize the accumulation of smoke or toxic gases.

Section 2304.1. Section 2304.1 of Section 2304 “Dispensing Operations” of Chapter 23 “Motor Fuel-Dispensing Facilities and Repair Garages” of this code is amended to read as follows:

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

1. Conducted by a qualified attendant; and/or

2. Shall be under the supervision of a qualified attendant; and/or

3. Shall be an unattended self-service facility in accordance with Section 2304.3.

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

Section 2306.2.3. Section 2306.2.3 of Section 2306 “Flammable and Combustible Liquid Motor Fuel-Dispensing Facilities” of Chapter 23 “Motor Fuel-Dispensing Facilities and Repair Garages” of this code is amended to read as follows:

2306.2.3 Above-ground tanks located outside, above grade. Above-ground tanks shall not be used for the storage of Class I, II, or III liquid motor fuels, except as provided by this section.

1. Above-ground tanks used for outside, above-grade storage of Class I liquids shall be listed and labeled as protected above-ground tanks in accordance with UL 2085 and shall be in accordance with Chapter 57. Such tanks shall be located in accordance with Table 2306.2.3.
2. Above-ground tanks used for outside, above-grade storage of Class II or IIIA liquids shall be listed and labeled as protected above-ground tanks in accordance with UL 2085 and shall be installed in accordance with Chapter 57. Tank locations shall be in accordance with Table 2306.2.3.

**Exception:** Other above-ground tanks that comply with Chapter 57 where approved by the fire code official.

3. Tanks containing fuels shall not exceed 12,000 gallons in individual capacity or 48,000 gallons in aggregate capacity. Installations with the maximum allowable aggregate capacity shall be separated from other such installations by not less than 100 feet.

4. Tanks located at farms, construction projects, or rural areas shall comply with Section 5706.2.

5. Above-ground tanks used for outside above-grade storage of Class IIIB liquid motor fuel less than 660 gallons shall be listed and labeled in accordance with UL 142. Above-ground tanks used for outside above-grade storage of Class IIIB liquid motor fuel equal to or more than 660 gallons shall be listed and labeled in accordance with UL 2085.

**Section 2307.1.** Section 2307.1 of Section 2307 “Liquefied Petroleum Gas Motor Fuel-Dispensing Facilities” of Chapter 23 “Motor Fuel-Dispensing Facilities and Repair Garages” of this code is amended to read as follows:

**2307.1 General.** Motor fuel-dispensing facilities for liquefied petroleum gas (LP-gas) fuel shall be in accordance with this section and Chapter 61. Both aboveground and belowground tanks storing liquefied petroleum gas for retail, wholesale, or distribution purposes are prohibited within the corporate limits of the City of Irving.

**Exception:** Temporary use of LP-gas fuel may be authorized in the sole discretion of the fire chief when necessary to protect the public health, safety and welfare.

**Section 2307.** Section 2307 “Liquefied Petroleum Gas Motor Fuel-Dispensing Facilities” of Chapter 23 “Motor Fuel-Dispensing Facilities and Repair Garages” of this code is amended by adding Sections 2307.1.1 through 2307.1.4 to read as follows:

**2307.1.1 Intent.** The intent of this chapter is to allow LP-gas motor vehicle fuel-dispensing stations for filling motor fuel containers on motor vehicles for companies that use LP-gas as an alternate motor fuel. It is the intent of this chapter to prohibit any person from filling any portable or mobile container, any container on a forklift truck, or on any similar vehicle not designed for highway use. It is the intent of this chapter to prohibit use by the general public of LP-gas motor vehicle fuel-dispensing stations.

**2307.1.2 General regulations.** No person shall install an LP-gas motor vehicle fuel-dispensing station on any property within the city that is not owned or occupied by a governmental entity, or that is on private property and located in violation of subsection f. of Section 2307.1.3. No person may install, own, or operate any LP-gas motor vehicle fuel-dispensing station on any property other than that owned or controlled by a business entity that uses at least 15 vehicles for business purposes. The
owner, operator, manager, and any person in control of an LP-gas motor vehicle fuel-dispensing station shall comply with this chapter, Chapter 17 of the Irving Code of Criminal and Civil Ordinances, the NFPA, and the Texas Railroad Commission's Safety Rules of the Liquefied Petroleum Gas Division.

2307.1.3 Plans and specifications.

1. Any person wanting to install or construct an LP-gas motor vehicle fuel-dispensing station shall submit plans and specifications for the proposed station to the chief for his or her review and approval prior to the start of any construction or installation of any equipment. The person shall submit plans and specifications that include:

   a. A site plan which illustrates the location of LP-gas storage vessels and their spatial relation to one another, property lines, buildings, building openings, fire hydrants and fire department access roads;

   b. The location and design of the LP-gas dispensers, dispenser nozzles, and related equipment and components;

   c. The design specification for all related piping, valves, and fittings;

   d. The location and classification of electrical equipment, lighting, emergency controls, fuel shutdown devices, and any other safety devices;

   e. Specifications for fuel storage and pressure relief components and for verbiage and location of all required signage; and

   f. The location, design, and specifications of the enclosure fencing.

2. No person shall begin construction or installation of an LP-gas motor vehicle fuel-dispensing station without approved plans and specifications for the facility.

2307.1.4 Tank capacity. No person shall install, construct, own, manage, or operate any LP-gas installation for a motor vehicle fuel-dispensing station that exceeds an aggregate water capacity of 2,000 gallons.

Section 2307.3. Section 2307.3 of Section 2307 “Liquefied Petroleum Gas Motor Fuel-Dispensing Facilities” of Chapter 23 “Motor Fuel-Dispensing Facilities and Repair Garages” of this code is amended to read as follows:

2307.3 Attendants. Motor fuel-dispensing operations shall be conducted by qualified attendants or in accordance with Section 2307.6 by persons trained in the proper handling of LP-gas.

1. No person other than a qualified, thoroughly trained attendant who has taken and passed an exam given by the Railroad Commission of Texas in the proper handling of LP-gas for motor fuel dispensing shall conduct a motor vehicle fueling operation.

2. The attendant shall not dispense and shall prevent any person from dispensing LP-gas into a container not in compliance with this chapter. The attendant shall control sources of ignition, give immediate attention to accidental releases, and be prepared to use fire extinguishers. The attendant
shall use a method of communicating with the fire department approved by the chief and shall immediately report all fires, accidental releases and hazardous conditions to the fire department.

3. The attendant shall not fill any portable or mobile container or any container on a forklift truck or on any similar vehicle not designed for highway use. The attendant shall not fill any container for use by the general public.

Section 2307.4. Section 2307.4 of Section 2307 “Liquefied Petroleum Gas Motor Fuel-Dispensing Facilities” of Chapter 23 “Motor Fuel-Dispensing Facilities and Repair Garages” of this code is amended to read as follows:

2307.4 Location of storage vessels and dispensing devices. No person shall locate liquefied petroleum gas storage or dispensing equipment:

1. Not less than 25 feet from buildings where the exterior wall is not part of a fire-resistance-rated assembly having a rating of 1 hour or greater.

2. Not less than 25 feet from combustible overhangs on buildings, measured from a vertical line dropped from the face of the overhang at a point nearest the point of transfer.

3. Not less than 25 feet from the lot line of property that can be built upon.

4. Not less than 25 feet from the centerline of the nearest mainline railroad track.

5. Not less than 10 feet from public streets, highways, thoroughfares, sidewalks and driveways.

6. Not less than 10 feet from buildings where the exterior wall is part of a fire-resistance-rated assembly having a rating of 1 hour or greater.

7. Indoors.

8. Within 150 feet of any residential area, apartment, hotel, educational facility, hospital, care facility, building, public way, street, railroad, property line of developable property, or waterway.

Section 2307. Section 2307 “Liquefied Petroleum Gas Motor Fuel-Dispensing Facilities” of Chapter 23 “Motor Fuel-Dispensing Facilities and Repair Garages” of this code is amended by adding Section 2307.4.1 to read as follows:

2307.4.1 Dispensing operations.

1. No person shall dispense LP-gas in a building.

   Exception: If the point of transfer for an LP-gas dispensing operation is under a canopy constructed in compliance with the building code.

2. No person shall locate an LP-gas vehicle dispenser in the same island as or within 15 feet of any other fuel dispenser.
Section 2307.6. Section 2307.5 of Section 2307 “Liquefied Petroleum Gas Motor Fuel-Dispensing Facilities” of Chapter 23 “Motor Fuel-Dispensing Facilities and Repair Garages” of this code is amended to read as follows:

2307.6 Installation of dispensing devices and equipment. Any person installing an LP-gas dispensing system, an LP-gas dispenser, or an LP-gas dispensing station shall install it in compliance with all applicable provisions of the manufacturer's specifications and listings, and all applicable provisions of this code.

Section 2307. Section 2307 “Liquefied Petroleum Gas Motor Fuel-Dispensing Facilities” of Chapter 23 “Motor Fuel-Dispensing Facilities and Repair Garages” of this code is amended by adding Sections 2307.9 through 2307.15 to read as follows:

2307.9 Security. No person shall install, construct, own, manage, or operate any LP-gas motor vehicle dispensing system that is not inside an approved fenced enclosure. The attendant shall fill only permanently mounted motor fuel containers on LP-gas powered motor vehicles for private companies and fleets. The attendant shall control the activation of the station by the use of key, code, or card approved by the chief. No person other than a qualified thoroughly trained attendant shall activate the station.

2307.10 Fencing. No person shall install, own, manage, or operate and LP-gas fuel dispensing station that does not have all LP-gas dispensing devices, equipment, and tanks in an enclosure fenced in compliance with the following:

1. Surrounded by chain link fencing with wire no smaller than 12 1/2 American wire gauge;

2. Surrounded by fencing that is at least 6 feet in height at all points. The highest foot of the fencing may be at least 3 strands of barbed wire no more than 4 inches apart;

3. Fencing with all uprights, braces, and corner posts composed of noncombustible material;

4. With at least 1 approved gate suitable for entrance and egress and emergency access;

5. With gates that are locked whenever the area enclosed is unattended;

6. With a minimum of 2 feet between the fencing and the container, and between the fencing and the entire dispensing system; and

7. With gates secured with a dual keyed Knox padlock for emergency access.

2307.11 Safety devices. The owner/fleet operator of an LP-gas dispensing facility shall ensure the safe operation of the system and the adequate training of its users. He or she shall ensure that safety devices on LP-gas containers, equipment, and systems has been installed and maintained as required by federal, state, and local laws and has not been tampered with or made ineffective. He or she shall ensure that emergency controls are conspicuously marked and are located so as to be readily accessible in emergencies. He or she shall ensure that the LP-gas dispensing system has the following approved minimum safety features:

1. Hoses with breakaway hose couplings;
2. A dispensing nozzle without any hold open latching device;

3. Pneumatic cylinder actuators, shear valves, back check valves, excess flow valves, and relief valves;

4. A remote emergency control system;

5. Key, code, or card operated dispensing;

6. Signage, namely, “No Smoking--Stop Engine While Fueling--Motor Vehicle Dispensing Only,” and “Filling Of Portable Containers Prohibited,” any other signage required by the chief, and any signage required by applicable law;

7. A method of notifying the fire department;

8. An emergency plan posted in an approved location;

9. Static protection, bonding, and grounding; and

10. Any additional safety measures required by the chief.

It is an affirmative defense to this section that the safety devices in place have been approved as equivalent to those listed in this section.

2307.12 Lighting. The owner/fleet operator of the station shall provide adequate lighting to illuminate the storage tank, control valves, safety devices, fire protection equipment, signage, dispensing areas, and other equipment as required by the chief.

2307.13 Protection from vehicles. The owner/fleet operator of an LP-gas station shall provide guard posts or another means approved by the chief to protect storage tanks and connected piping, valves and fittings, dispensing areas, and use areas from vehicular damage.

2307.14 Fire protection. The owner/fleet operator of an LP-gas motor vehicle fuel dispensing station shall provide and maintain all fire protection systems and fire extinguishers required by the chief, NFPA, Chapter 9 of this code, and the Texas Railroad Commission Safety Rules.

2307.15 Fire department access roads and fire hydrants. The owner/fleet operator of an LP-gas motor vehicle fuel-dispensing station shall provide fire department access roads and fire hydrants in compliance with Chapter 5 of this code.

Section 2401. Section 2401 “General” of Chapter 24 “Flammable Finishes” of this code is amended by deleting Section 2401.2 “Nonapplicability.”

Section 2404.4. Section 2404.4 of Section 2404 “Spray Finishing” of Chapter 24 “Flammable Finishes” of this code is amended to read as follows:

2404.4 Fire protection. New and existing spray booths and spray rooms shall be protected by an approved automatic fire-extinguishing system complying with Chapter 9 which shall also protect exhaust plenums, exhaust ducts and both sides of dry filters when such filters are used.
Section 3103.2. Section 3103.2 of Section 3103 “Temporary Tents and Membrane Structures” of Chapter 31 “Tents and Other Membrane Structures” of this code is amended to read as follows:

3103.2 Approval required. Tents and membrane structures having an area in excess of 400 square feet or tents which are open without sidewalls or drops on 75 percent or more of the perimeter and in excess of 1600 square feet shall not be erected, operated or maintained for any purpose without first obtaining a permit and approval from the fire code official.

Exceptions:

1. Tents used exclusively for recreational camping purposes.

2. Fabric tents open on all sides which comply with all of the following:

   2.1. Individual tents having a maximum size of 1,600 square feet.

   2.2. The aggregate area of multiple tents placed side by side without a fire break clearance of not less than 20 feet shall not exceed 1,600 square feet total.

   2.3. A minimum clearance of 20 feet to structures

Section 5601.1.3. Section 5601.1.3 of Section 5601 “General” of Chapter 56 “Explosives And Fireworks” of this code is amended to read as follows:

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

Exceptions:

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

2. Novelty items as defined by the Department of Transportation.

Section 5608.1. Section 5608.1 of Section 5608 “Fireworks Display” of Chapter 56 “Explosives And Fireworks” of this code is amended to read as follows:

5608.1 General. The display of fireworks, including proximate audience displays and pyrotechnic special effects in motion picture, television, theatrical, and group entertainment productions and flame effects before an audience, shall comply with Sections 5608.2 through 5608.10 and NFPA 1123, NFPA 1126, or NFPA 160.

Section 5608.2. Section 5608.2 of Section 5608 “Fireworks Display” of Chapter 56 “Explosives And Fireworks” of this code is amended to read as follows:
5608.2 Permit application. Prior to issuing permits for fireworks display, plans for the display, inspections of the display site, and demonstrations of the display operations shall be approved. The person requesting a permit shall submit sufficient site plans, lists of materials, descriptions of devices and firing circuits, and any other information needed by the fire department to assure that all requirements have been met and the operator is fully aware of these requirements. Content submittals are specified in NFPA 1123 and NFPA 1126. Application for permit may only be made by a pyrotechnic operator.

Section 5608. Section 5608 “Fireworks Display” of Chapter 56 “Explosives And Fireworks” of this code is amended by adding Section 5608.2.3 to read as follows:

5608.2.3 Flame effects before an audience. In addition to all other requirements, a fire hazard analysis which takes into consideration such things as building construction, egress paths, age and nature of audience, etc., must be submitted with the permit application and approved by the fire code official.

Section 5703.6. Section 5703.6 of Section 5703 “General Requirements” of Chapter 57 “Flammable And Combustible Liquids” of this code is amended to read as follows:

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

Section 5704. Section 5704 “Storage” of Chapter 57 “Flammable and Combustible Liquids” of this code is amended by adding Section 5704.2.9.5.3 to read as follows:

5704.2.9.5.3 Combustible liquid storage tanks inside of buildings. The maximum aggregate allowable quantity limit shall be 3,000 gallons of Class I, II or III combustible liquid for storage in protected aboveground tanks complying with Section 5704.2.9.7 when all of the following conditions are met:

1. The entire 3,000 gallon quantity shall be stored in protective aboveground tanks;

2. The 3,000 gallon capacity shall be permitted to be stored in a single tank or multiple smaller tanks;

3. The tanks shall be located in a room protected by an automatic sprinkler system complying with Section 903.3.1.1; and

4. Tanks shall be connected to fuel-burning equipment, including generators, utilizing an approved closed piping system.

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

Section 5704.2.11.4. Section 5704.2.11.4 of Section 5704 “Storage” of Chapter 57 “Flammable And Combustible Liquids” of this code is amended to read as follows:
5704.2.11.4 Leak prevention. Leak prevention for underground tanks shall comply with Sections 5704.2.11.4.1, 5704.2.11.4.2, and 5704.2.11.4.3. An approved method of secondary containment shall be provided for underground tank and piping systems.

Section 5704.2.11.4.2. Section 5704.2.11.4.2 of Section 5704 “Storage” of Chapter 57 “Flammable And Combustible Liquids” of this code 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 detections from any component of the system that is designed and installed in accordance with NFPA 30 and as specified in Section 5704.2.11.4.3.

Section 5704. Section 5704 “Storage” of Chapter 57 “Flammable And Combustible Liquids” of this code is amended by adding Section 5704.2.11.4.3 to read as follows:

5704.2.11.4.3 Observation wells. Approved sampling tubes of a minimum 6 inches in diameter shall be installed in the backfill material of each underground flammable or combustible liquid storage tank. The tubes shall extend from a point 12 inches below the average grade of the excavation to ground level and shall be provided with suitable surface access caps. Each tank site shall provide a sampling sump at the corners of the excavation with a minimum of 4 sumps. Sampling tubes shall be placed in the product line excavation within 10 feet of the tank excavation and one every 50 feet routed along product lines towards the dispensers. A minimum of two sampling tubes are required regardless of the length of the line.

Section 6103. Section 6103 “Installation Of Equipment” of Chapter 61 “Liquefied Petroleum Gases” of this code is amended by adding Section 6103.2.1.8 to read as follows:

6103.2.1.8 Jewelry repair, dental labs and similar occupancies. Where natural gas service is not available, portable LP-gas containers are allowed to be used to supply approved torch assemblies or similar appliances. Such containers shall not exceed 20-pound water capacity. Aggregate capacity shall not exceed 60-pound water capacity. Each device shall be separated from other containers by a distance of not less than 20 feet.

Section 6104.2. Section 6104.2 of Section 6104 “Location of LP-Gas Containers” of Chapter 61 “Liquefied Petroleum Gases” of this code is amended to read as follows:

6104.2 Maximum capacity within established limits. Within the limits established by law restricting the storage of liquefied petroleum gas for the protection of heavily populated or congested areas, the aggregate capacity of any one installation shall not exceed a water capacity of 2,000 gallons.

Exceptions:

1. In particular installations, this capacity limit shall be determined by the fire code official, after consideration of special features such as topographical conditions, nature of occupancy, and proximity to buildings, capacity of proposed LP-gas containers, degree of fire protection to be provided, and capabilities of the local fire department.

2. LP-gas containers are not permitted in residential areas except as permitted in Section 308 and 6104.3.2.
Section 6104. Section 6104 "Location of LP-Gas Containers" of Chapter 61 "Liquefied Petroleum Gases" of this code is amended by adding Section 6104.3.3 to read as follows:

6104.3.3 Spas and pool heaters. Where natural gas service is not available, a LP-gas container is allowed to be used to supply spa and pool heaters. No more than one container may be used and such container shall not exceed 250 gallon water capacity. See Table 6104.3 for location of containers.

Section 6106. Section 6106 "Dispensing And Overfilling" of Chapter 61 "Liquefied Petroleum Gases" of this code is amended by adding Section 6106.4 to read as follows:

6106.4 Filling of portable or mobile containers. No person shall install or maintain a fixed, portable, or mobile liquefied petroleum gas storage container to fill mobile or portable LP-gas containers.

Exceptions:

1. Storage containers approved by the fire chief, installed, and used for such purpose prior to January 1, 1979.

2. Tank trucks licensed by the Railroad Commission.

3. As allowed in Section 2307.

APPENDIX B

FIRE-FLOW REQUIREMENTS FOR BUILDINGS

Appendix B. Appendix B "Fire-Flow Requirements For Buildings" of this code is amended by deleting Sections B103, B104, B105, and B106, and Table B105.1(1).

Section B101. Section B101 of Appendix B "Fire-Flow Requirements For Buildings" of this code is amended by adding Section B101.2 to read as follows:

B101.2 Buildings including one and two-family dwellings, Groups R-3 and R-4 buildings and townhouses. The minimum fire-flow and flow duration for buildings including one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses shall be as specified in Table B105.1(2).

APPENDIX D

FIRE APPARATUS ACCESS ROADS

Section D102.1. Section D102.1 of Appendix D "Fire Apparatus Access Roads" of this code is amended to read as follows:

D102.1 Access and loading. Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with asphalt, concrete or other approved driving surface capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds.
Section D103.1. Section D103.1 “Access road width with a hydrant” of Appendix D “Fire Apparatus Access Roads” of this code is deleted.

Section D103. Section D103.2 of Appendix D “Fire Apparatus Access Roads” of this code is amended to read as follows:

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

**Exception:** Grades steeper than 6 percent as approved by the fire chief.

Section D103. Section D103.3 of Appendix D “Fire Apparatus Access Roads” of this code is amended to read as follows:

**D103.3 Turning radius.** The minimum turning radii shall be as follows:

For 90 degree or less turns:

1. 24 foot fire lane – minimum internal radius is 30 feet.
2. 30 foot fire lane – minimum internal radius is 20 feet.

For turns greater than 90 degrees, AASHTO Geometric Design Standards shall be utilized.

Widths shall be increased when, in the opinion of the chief, they are not adequate to provide fire apparatus access.

Section D103. Section D103.4 of Appendix D “Fire Apparatus Access Roads” of this code is amended to read as follows:

**D103.4 Dead ends.** Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) shall be provided with width and turnaround provisions in accordance with Table D103.4.
Table D103.4. Table D103.4 of Appendix D “Fire Apparatus Access Roads” of this code is amended to read as follows:

<table>
<thead>
<tr>
<th>LENGTH (feet)</th>
<th>WIDTH (feet)</th>
<th>TURNAROUNDS REQUIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-150</td>
<td>24</td>
<td>None required</td>
</tr>
<tr>
<td>150-500</td>
<td>24</td>
<td>120-foot Hammerhead, 60-foot “Y” or 96-foot-diameter cul-de-sac in accordance with Figure D103.1</td>
</tr>
<tr>
<td>501-750</td>
<td>28</td>
<td>120-foot Hammerhead, 60-foot “Y” or 96-foot-diameter cul-de-sac in accordance with Figure D103.1</td>
</tr>
<tr>
<td>Over 750</td>
<td></td>
<td>Special approval required</td>
</tr>
</tbody>
</table>

Section D103. Section D103.5 of Appendix D “Fire Apparatus Access Roads” of this code 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 24 feet. Where a fire apparatus road consists of a divided roadway, the gate width shall be not less than 12 feet.

2. Gates shall be of the swinging or sliding 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 openers, 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 F 2200.

Section D104. Sections D104.1 through D104.3 of Appendix D “Fire Apparatus Access Roads” of this code are amended to read as follows:

D104.1 Buildings exceeding three stories/30 feet in height. Buildings or facilities exceeding 30 feet or three stories in height shall have at least three means of fire apparatus access for each structure.
D104.2 Buildings exceeding 62,000 square feet in area. Buildings or facilities having a gross building area of more than 62,000 square feet shall be provided with two separate and approved fire apparatus access roads.

Exception: Projects having a gross building area of up to 124,000 square feet having a single approved fire apparatus access road when all buildings are equipped throughout with approved automatic sprinkler systems.

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

Section D105. Sections D105.1 through D105.3 of Appendix D “Fire Apparatus Access Roads” of this code are amended to read as follows:

D105.1 Where required. Buildings or portions of buildings or facilities exceeding 30 feet in height above the lowest level of fire department vehicle access shall be provided with approved fire apparatus access roads capable of accommodating fire department aerial apparatus. Overhead utility and power lines shall not be located within the aerial fire apparatus access roadway.

D105.2 Width. Fire apparatus access roads shall have a minimum unobstructed width of 26 feet in the immediate vicinity of any building or portion of building more than 30 feet in height.

D105.3 Proximity to building. At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet and a maximum of 30 feet from the building, and shall be positioned parallel to one entire side of the building.

Section D106. Sections D106.1 and D106.2 of Appendix D “Fire Apparatus Access Roads” of this code are amended to read as follows:

D106.1 Projects having more than 100 dwelling units. Multiple-family residential projects having more than 100 dwelling units shall be equipped throughout with two separate and approved fire apparatus access roads.

Exception: Projects having up to 200 dwelling units may have a single approved fire apparatus access road when all buildings, including nonresidential occupancies, are equipped throughout with approved automatic sprinkler systems installed in accordance with Section 903.3.1.1 or 903.3.1.2 of the International Fire Code as adopted by the City of Irving.

D106.2 Projects having more than 200 dwelling units. Multiple-family residential projects having more than 200 dwelling units shall be provided with two separate and approved fire apparatus access roads regardless of whether they are equipped with an approved automatic sprinkler system.

Section D107. Section D107.1 of Appendix D “Fire Apparatus Access Roads” of this code 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 separate and approved fire apparatus access roads, and shall meet the requirements of Section D104.3.

**Exceptions:**

1. Where there are no more than 60 dwelling units on 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, or 903.3.1.3 of the *International Fire Code* as adopted by the City of Irving, access from two directions shall not be required.

2. The number of dwelling units on 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.


SECTION 2. That Ordinance No. ORD-2012-9408 is hereby repealed.

SECTION 3. That the terms and provisions of this ordinance shall be deemed to be severable and that if the validity of any section, subsection, sentence, clause or phrase of this ordinance should be declared to be invalid, the same shall not affect the validity of any other section, subsection, sentence, clause or phrase of this ordinance. Further, it is the intent of the Irving City Council that pending prosecutions, brought under the previous code which this ordinance replaces, should continue under the terms and penalties of said code and be saved from dismissal as if said prior ordinance had not been amended or repealed.

SECTION 4. That this ordinance shall become effective on January 9, 2016.

PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF IRVING, TEXAS, on December 10, 2015.

Beth Van Duyne
MAYOR

ATTEST:
Shanae Jennings
City Secretary

APPROVED AS TO FORM:
Charles R. Anderson
City Attorney