

## EXHIBIT D

### Recommended Amendments to the 2006 International Fire Code

North Central Texas Council of Governments region

The following sections, paragraphs, and sentences of the *2006 International Fire Code* are hereby amended as follows: Standard type is text from the IFC. Underlined type is text inserted. ~~Lined through type is deleted text from IFC.~~ A double asterisk at the beginning of a section identifies an amendment carried over from the 2003 edition of the code and a triple asterisk identifies a new or revised amendment with the 2006 code.

#### **Explanation of Options A and B:**

*Please note that as there is a wide range in fire fighting philosophies / capabilities of cities across the region, OPTION "A" and OPTION "B" are provided in the Fire and Building Code amendments. Jurisdictions should choose one or the other based on their fighting philosophies / capabilities when adopting code amendments.*

*Note: Fire sprinkler code provisions for single-family dwellings and duplexes may be found in the International Residential Code.*

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#### **\*\*\*Section 102.1; add #5:**

##### **102.1 Construction and design provisions.**

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

*(Reason: To clarify that the fire safety provisions of the fire code do apply to all construction.)*

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#### **\*\*Section 102.4; change to read as follows:**

**102.4 Application of building other codes.** The design and construction of new structures shall comply with this code, and other codes as applicable ~~the International Building Code~~, 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.

*(Reason: Clarification of requirements and that the IFC also applies to new residential construction.)*

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#### **\*\*Section 102.6; change to read as follows:**

**102.6 Referenced codes and standards.** The codes and standards referenced in this code shall be those that are listed in Chapter 45 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.

*(Reason: To be consistent with the State of Texas, other referenced codes must be specifically adopted.)*

## EXHIBIT D

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**\*\*\*Section 106.2; add Sections 106.2.1 and 106.2.2 as follows:**

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

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

*(Reason: Clarifies that it is the permit holder's responsibility to notify the fire code official when the installation is ready for appropriate inspection and before covering up any work.)*

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**\*\*Section 202; amend definition of Fire Watch as follows:**

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

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

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**Option A**

**\*\*Section 202; add a new definition to read as follows:**

**HIGH-RISE BUILDING.** A building having any floors used for human occupancy located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.

**Option B**

**\*\*Section 202; add a new definition to read as follows:**

**HIGH-RISE BUILDING.** A building having any floors used for human occupancy located more than 55 feet (16 764 mm) above the lowest level of fire department vehicle access.

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

## EXHIBIT D

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**\*\*\*Section 202; add definitions as follows:**

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

**ANALOG 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.

**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.

*(Reason: To provide definitions that do not exist in the code.)*

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

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

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

1. Texas Commission on Environmental Quality guidelines and/or restrictions.
2. State, County or Local temporary or permanent bans on open burning.
3. Local written policies as established by the Code Official.

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

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

*(exceptions unchanged)*

**\*\*Add Section 307.4.3 to read as follows:**

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

## EXHIBIT D

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

**307.5 Attendance.** Open burning, trench burns, bonfires or recreational fires shall be constantly attended until the . . . *{remainder of section unchanged}*.

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

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**\*\*\*Section 308.3.1; change to read as follows:**

**308.3.1 Open-flame cooking and heating devices.** ~~Charcoal burners and other~~ Open-flame cooking devices, charcoal grills, outdoor fireplaces and other similar devices used for cooking, heating or any other purpose shall not be operated, located or used on combustible balconies, decks, or within 10 feet (3048 mm) of combustible construction.

**Exceptions:**

1. One- and two-family dwellings.
2. Where buildings, balconies and decks are protected by an approved automatic sprinkler system.

*(Reason: Decrease fire risk in multi-family dwellings and minimizes ignition sources.)*

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**\*\*\*Section 308.3.1.1; Amended to add the following exceptions:**

**Exceptions:**

1. One- and two-family dwellings may have containers with a water capacity not greater than 20 pounds (9.08 kg) [nominal 8 pound (3.632 kg) LP-gas capacity] with an aggregate capacity not to exceed 100 lbs (5 containers).
2. Other residential occupancies where buildings, balconies and decks are protected by an approved automatic sprinkler system, may have containers with a water capacity not greater than 20 pounds (9.08 kg) [nominal 8 pound (3.632 kg) LP-gas capacity], with an aggregate capacity not to exceed 40 lbs (2 containers).

*(Reason: To clarify allowable limits for 1 & 2 family dwellings, and allow an expansion for sprinklered multi-family uses. Clarification and defines container size residences are allowed.)*

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**\*\*\*Section 401.3; add Section 401.3.4 as follows:**

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

*(Reason: Places the responsibility of the business or property owner to maintain their fire alarm systems in approved condition. Allows the enforcement of "prohibition of false alarms". Replaces language lost from the 1997 Code)*

## EXHIBIT D

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**\*\*Section 503.1.1; add the following sentence to the first paragraph:**

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

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

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

**503.2.1 Dimensions.** Fire apparatus access roads shall have an unobstructed width of not less than ~~20~~ 24 feet (~~6096 mm~~ 7315mm), except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than ~~13 feet 6 inches (4115 mm.)~~ 14 feet (4267 mm).

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

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

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

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

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

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

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

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

*(Reason: Establishes a standard method of marking.)*

## EXHIBIT D

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

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

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

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**\*\*\*Section 505.1; replace to read as follows:**

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

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

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

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

*(Reason: To increase the minimum requirements for commercial and establish a minimum for single-family residential.)*

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**\*\*\*Add Section 511 Emergency Radio Communications to read as follows:**

### **SECTION 511** **EMERGENCY RADIO COMMUNICATIONS**

**511.1 Signal strength in buildings.** In all new and existing buildings in which the type of construction or distance from an operational emergency services antenna or dispatch site does not provide adequate frequency or signal strength as determined by the code official, the building owner shall be responsible for providing the equipment, installation and maintenance of said equipment in a manner to strengthen the radio signal. The radio signal shall meet the minimum input / output strengths according to the emergency radio system's provider and system manager.

*(Reason: Ensure proper communication inside the building during emergency operations.)*

## EXHIBIT D

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

**704.1 Enclosure.** Interior vertical shafts, including but not limited to stairways, elevator hoistways, service and utility shafts, that connect two or more stories of a building shall be enclosed or protected in accordance with the codes in effect at the time of construction but, regardless of when constructed, not less than as specified in Table 704.1.

*(Reason: Provides standard minimum protection retroactively, but clarifies that this section is not to be used to reduce higher protection levels that were required when originally constructed.)*

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**\*\*\* Section 807.4.3.2 and Section 807.4.4.2; add an exception to read as follows:**

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

*(Reason: This change allows an increase in wall coverage due to the presence of sprinklers.)*

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**\*\*\*Section 901.6.1; add section to read as follows:**

**901.6.1.1 Standpipe Testing.** Building owners/managers must utilize a licensed fire protection contractor to test and certify standpipe systems. In addition to the testing and maintenance requirements of NFPA 25 applying to standpipe systems, the following additional requirements shall be applied to the testing that is required every 5 years:

1. The piping between the Fire Department Connection (FDC) and the standpipe shall be hydrostatically tested for all FDC's on any type of standpipe system. Hydrostatic testing shall also be conducted in accordance with NFPA 25 requirements for the different types of standpipe systems.
2. For any manual (dry or wet) standpipe system not having an automatic water supply capable of flowing water through the standpipe, the contractor shall connect hose from a fire hydrant or portable pumping system (as approved by the fire code official) to each FDC, and flow water through the standpipe system to the roof outlet to verify that each inlet connection functions properly. There is no required pressure criteria at the outlet. Verify that check valves function properly and that there are no closed control valves on the system.
3. Any pressure relief, reducing, or control valves shall be tested in accordance with the requirements of NFPA 25.
4. If the FDC is not already provided with approved caps, the contractor shall install such caps for all FDC's. Contact the Fire Marshal for additional information.
5. Upon successful completion of standpipe test, the contractor shall place a blue tag (as per "Texas Administrative Code, Title 28. Insurance, Part I. Texas Department of Insurance, Chapter 34. State Fire Marshal, Subchapter G. Fire Sprinkler Rules, 28 TAC § 34.720. Inspection, Test and Maintenance Service (ITM) Tag") at the bottom of each standpipe riser in the building. An example of this tag is located at the end of this SOP. The tag shall be check-marked as "Fifth Year" for Type of ITM, and the note on the back of the tag shall read "5 Year Standpipe Test" at a minimum.

## EXHIBIT D

6. The contractor shall follow the procedures as required by "Texas Administrative Code, Title 28, Insurance, Part I, Texas Department of Insurance, Chapter 34, State Fire Marshal, Subchapter G, Fire Sprinkler Rules, 28 TAC" with regard to Yellow Tags and Red Tags or any deficiencies noted during the testing, including the required notification of the local Authority Having Jurisdiction (Fire Marshal).
7. Additionally, records of the testing shall be maintained by the owner and contractor, as required by the State Rules mentioned above and NFPA 25.
8. Standpipe system tests where water will be flowed external to the building shall not be conducted during freezing conditions or during the day prior to expected night time freezing conditions.
9. Contact the Fire Marshal for requests to remove existing fire hose from Class II and III standpipe systems where employees are not trained in the utilization of this fire fighting equipment. All standpipe hose valves must remain in place and be provided with an approved cap and chain when approval is given to remove hose by the fire code official.

*(Reason: Increases the reliability of the fire protection system and re-emphasizes the requirements of NFPA 25.)*

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**\*\*Section 901.7; amend to read as follows:**

**901.7 Systems out of service.** Where a required fire protection system is out of service or in the event of an excessive number of activations, the fire department and the code official shall be notified immediately and, where required by the 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.

*(Reason: Gives Fire Chief more discretion. Requires adoption of definition amendment in Section 202.)*

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**\*\* Section 903.2; delete the exception.**

*(Reason: These areas pose a fire risk to the structural integrity of the building.)*

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**\*\*Add Section 903.2.8.3 to read as follows:**

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

**Exception:** One-story self-service storage facilities that have no interior corridors, with a one-hour fire barrier separation wall installed between every storage compartment.

*(Reason: Fire departments are unable to inspect these commercial occupancies and are unaware of the contents being stored.)*

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**\*\*\* Amend the title of Section 903.2.10 to read "Windowless stories in all occupancies except R-3 and U".**

*(Reason: Current title of windowless stories in all occupancies does not currently cover all the*  
North Central Texas  
2006 IFC Amendments

## EXHIBIT D

subsections listed and referenced.

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### Option A

**\*\*Section 903.2.10; amend 903.2.10.3 and add 903.2.10.4, 903.2.10.5, and 903.2.10.6 as follows:**

**903.2.10.3 Buildings more than 55 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*, having an occupant load of 30 or more that is located 55 feet (16 764 mm) or more above the lowest level of fire department vehicle access.

**Exception:**

1. ~~Airport control towers.~~
2. Open parking structures in compliance with Section 406.3 of the Building Code.
3. ~~Occupancies in Group F-2.~~

**903.2.10.4 High-Piled Combustible Storage.** For any building with a clear height exceeding 12 feet (4572 mm), see Chapter 23 to determine if those provisions apply.

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

### Option B

**\*\*Section 903.2.10; amend 903.2.10.3 and add 903.2.10.4, 903.2.10.5, and 903.2.10.6 as follows:**

**903.2.10.3 Buildings more than ~~55~~ 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*, having an occupant load of 30 or more that is located ~~55~~ 35 feet (46 764 10 668mm) or more above the lowest level of fire department vehicle access.

**Exception:**

1. ~~Airport control towers.~~
2. Open parking structures in compliance with Section 406.3 of the *International Building Code*.
3. ~~Occupancies in Group F-2.~~

**903.2.10.4 High-Piled Combustible Storage.** For any building with a clear height exceeding 12 feet (4572 mm), see Chapter 23 to determine if those provisions apply.

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

**903.2.10.6 Buildings Over 6,000 sq.ft.** An automatic sprinkler system shall be installed throughout all buildings with a building area over 6,000 sq.ft. For the purpose of this provision, fire walls shall not define separate buildings.

**Exceptions:**

1. Open parking garages in compliance with Section 406.3 of the *International Building Code*.
2. Type A-5.

## EXHIBIT D

*(Reason: Reflect local practices.)*

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

**903.3.1.1.1 Exempt locations.** When approved by the code official, automatic ~~Automatic~~ sprinklers shall not be required in the following rooms or areas where such . . . *{bulk of section unchanged}* . . . because it is damp, of fire-resistance-rated construction or contains electrical equipment.

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the code official.
3. Generator and transformer rooms, under the direct control of a public utility, separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than 2 hours.
4. ~~In rooms or areas that are of noncombustible construction with wholly noncombustible contents.~~

*(Reason: Gives more discretion to code official. Protects locations where fire risks are poorly addressed.)*

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

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

*(Reason: To define uniform safety factor.)*

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

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

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

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

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

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

## EXHIBIT D

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**\*\*Add Section 903.6.2 to read as follows:**

**903.6.2 Spray booths and rooms.** New and existing spray booths and spray rooms shall be protected by an approved automatic fire-extinguishing system in accordance with Section 1504.

*(Reason: Consistent with amendment to IFC 1504.)*

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

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

*(Reason: To define manual dry standpipe supervision requirements.)*

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**\*\*\*Add Section 905.3.8 and exception to read as follows:**

**905.3.8 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 (60960 mm) 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.

*(Reason: Allows for the rapid deployment of hoselines to the body of the fire.)*

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**\*\*Section 905.4, item #5; change to read as follows:**

5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a two-way hose connection located either . . . {remainder of paragraph unchanged} . . .

*(Reason: Reduced the amount of pressure required to facilitate testing, and provides backup protection for fire fighter safety.)*

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

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

## EXHIBIT D

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

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**\*\*Add Section 907.1.3 to read as follows:**

**907.1.3 Design Standards.** All alarm systems new or replacement serving 20 or more alarm actuating devices shall be addressable fire detection systems. Alarm systems serving more than 40 smoke detectors or more than 100 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% of the building. When cumulative building remodel or expansion exceeds 50% of the building must comply within 18 months of permit application.

(Reason: Consistent with local practice.)

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

**907.2.1 Group A.** A manual fire alarm system shall be installed in Group A occupancies having an occupant load of 300 or more persons or more than 100 persons above or below the lowest level of exit discharge. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy.

(Reason: Increases the requirement is changed to be consistent with Group B requirement.)

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

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

(Reason: To distinguish educational from day care occupancy minimum protection requirements. Further, to define threshold at which portable buildings are considered a separate building for the purposes of alarm systems.)

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**\*\*Section 907.2.3; change exception #1 and add exception #1.1 to read as follows:**

1. 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. (For care of more than five children 2 1/2 or less years of age, see Section 907.2.6.)

(Reason: Consistent with Texas State laws concerning day care facility requirements.)

## EXHIBIT D

### Option A

**\*\*Section 907.2.12; change to read as follows:**

**907.2.12 High-rise buildings.** Buildings with any floor used for human occupancy located more than 75 feet (22 860 mm) above the lowest level (*balance unchanged*)

### Option B

**\*\*Section 907.2.12; change to read as follows:**

**907.2.12 High-rise buildings.** Buildings with any floor used for human occupancy located more than ~~75~~ 55 feet (22-860 16 764 mm) above the lowest level of fire department vehicle access shall be provided with an automatic fire alarm system and an emergency voice/alarm communications system in accordance with Section 907.2.12.2.

(Reason: To correct definition of high-rise for Option B jurisdictions.)

**\*\*Section 907.2.12, exception #3; change to read as follows:**

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.

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

**\*\*Section 907.4; add a second paragraph to read as follows:**

Manual alarm actuating devices shall be an approved double action type.

(Reason: Consistent with local requirements.)

**\*\*\* Add Section 907.6.1 to read as follows:**

**907.6.1 Installation.** All fire alarm systems shall be installed in such a manner that a failure of any single initiating device or single open in an initiating circuit conductor will not interfere with the normal operation of other such devices. All initiating circuit conductors shall be Class "A" wired with a minimum of six feet separation between supply and return circuit conductors. IDC – Class "A" Style D; SLC - Class "A" Style 6; NAC - Class "B" Style Y. The IDC from an addressable device used to monitor the status of a suppression system may be wired Class B, Style B provided the distance from the addressable device is within 10-feet of the suppression system device.

## EXHIBIT D

(Reason: To provide uniformity in system specifications and guidance to design engineers.)

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### Option A

**\*\*Section 907.9.2; change to read as follows:**

**907.9.2 ~~907.8.2~~ High-rise buildings.** In buildings with a any floor used for human occupancy that is located more than 75 feet (22 860 mm) above the lowest level . . . {*remainder of section unchanged*}.

### Option B

**\*\*Section 907.9.2; change to read as follows:**

**907.9.2 High-rise buildings.** In buildings that have a any floor used for human occupancy that is located more than ~~75~~ 55 feet (~~22 860~~ 16 764 mm) above the lowest level . . . {*remainder of section unchanged*}.

(Reason: Correct definition of high-rise for Option B jurisdictions.)

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**\*\*\*Section 910.1; Amend exception 2 to read as follows:**

4. Where areas of buildings are equipped with early suppression fast-response (ESFR) sprinklers, ~~automatic-only manual~~ smoke and heat vents shall ~~not~~ be required within these areas.

(Reason: Allows the fire department to control the smoke and heat during and after a fire event.)

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**\*\*\*Section 910.2; Add subsection 910.2.4 and exceptions to read as follows:**

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

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

#### **Exceptions:**

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

(Reason: Maintain the current level of protection as outlined in the 2003 IFC.)

## EXHIBIT D

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**\*\*\*Table 910.3; Change the title of the first row of the table from “Group F-1 and S-1” to include “Group H” and to read as follows:**

Group H, F-1 and S-1

*(Reason: Consistency with the amendment 910.2.4 to include Group H)*

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**\*\*\*Section 910.3.2.2; Add second paragraph to read as follows:**

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

*(Reason: Specifies a temperature range at which smoke and heat vents should activate in sprinklered buildings to ensure that the sprinkler system has an opportunity to activate and control the fire prior to vent operation.)*

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**\*\*\*Section 913.1 – Add second paragraph and exception to read as follows:**

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

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

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

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**\*\*\*Section 1017.1; add an exception #5 to read as follows:**

- 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 fire alarm system with corridor smoke detection. 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.

*(Reason: Consistent with regional amendment to IBC 1017.1.)*

## EXHIBIT D

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### Option A

**\*\*Section 1020.1.7; change to read as follows:**

**1020.1.7 Smokeproof enclosures.** In buildings required to comply with Section 403 or 405 of the IBC, each of the exits of a building that serves stories where ~~the~~ any floor surface is located more than 75 feet (22 860 mm) above the lowest level of fire...*{remainder of section unchanged}*

### Option B

**\*\*Section 1020.1.7; change to read as follows:**

**1020.1.7 Smokeproof enclosures.** In buildings required to comply with Section 403 or 405 of the IBC, each of the exits of a building that serves stories where ~~the~~ any floor surface is located more than ~~75~~ 55 feet (22-860 16 764 mm) above the lowest level of fire . . . *{remainder of section unchanged}*.

*(Reason: Correct definition of high-rise for Option B jurisdictions.)*

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**\*\*\*Section 1028.2; change to read as follows:**

**1028.2 Reliability.** Required exit accesses, exits or exit discharges shall be continuously maintained free from obstructions or impediments to full instant use in the case of fire or other emergency ~~when the areas served by such exits are occupied.~~ Security devices affecting means of egress shall be subject to approval of the fire code official.

*(Reason: Maintain a current level of protection as identified in the 2003 and provide firefighter safety.)*

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**\*\*Section 1504.4; change to read as follows:**

**1504.4 Fire Protection.** ~~New and existing spray~~ Spray booths and spray rooms shall be protected by an approved automatic fire-extinguishing system ... *[remainder of section unchanged]* ...

*(Reason: Consistent protection in all spray booths.)*

---

**\*\*\*Section 2204.1; change to read as follows:**

**2204.1 Supervision of dispensing.** The dispensing of fuel at motor fuel-dispensing facilities shall be conducted by a qualified attendant or shall be under the supervision of a qualified attendant at all times or shall be in accordance with ~~Section 2204.3.~~ the following:

1. Conducted by a qualified attendant; and/or,
2. Shall be under the supervision of a qualified attendant; and/or
3. Shall be an unattended self-service facility in accordance with Section 2204.3.

## EXHIBIT D

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 2204.3.

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

---

### Option A

**\*\*Section 2302; add a second paragraph to the definition of “High-Piled Combustible Storage” to read as follows:**

Any building exceeding 12,000 sq.ft. 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 shall be installed as for Class IV commodities, to the maximum pile height.

### Option B

**\*\*Section 2302; add a second paragraph to the definition of “High-Piled Combustible Storage” to read as follows:**

Any building exceeding 6,000 sq.ft. 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 shall be installed as for Class IV commodities, to the maximum pile height.

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

---

**\*\*\*Table 2306.2; replace text of “footnote j” to read as follows:**

j. Where areas of buildings are equipped with early suppression fast-response (ESFR) sprinklers, only manual smoke and heat vents shall be required within these areas.

*(Reason: Allows the fire department to control the smoke and heat during and after a fire event.)*

---

**\*\*Section 3301.1.3; change to read as follows:**

**3301.1.3 Fireworks.** The possession, manufacture, **storage**, sale, handling and use of fireworks are prohibited.

#### Exceptions:

1. Only when approved for fireworks displays, storage and handling of fireworks as allowed in Section 3304 and 3308.
2. Manufacture, assembly and testing of fireworks as allowed in Section 3304.
3. The use of fireworks for approved display as allowed in Section 3308.
4. The possession...consumer fireworks.

## EXHIBIT D

*(Reason: Restricts to approved displays, which is consistent with local practice.)*

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**\*\*Section 3302; change the definition of “fireworks” to read as follows:**

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

*(Reason: Increased safety from fireworks related injuries.)*

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**\*\*Section 3403.6; add a sentence to read as follows:**

An approved method of secondary containment shall be provided for underground tank and piping systems.

**\*\*Section 3404.2.11.5; add a sentence to read as follows:**

An approved method of secondary containment shall be provided for underground tank and piping systems.

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

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**\*\*Section 3404.2.11.5.2; change to read as follows:**

**3404.2.11.5.2 Leak detection.** Underground storage tank systems ... *[bulk of provision unchanged]* ... and installed in accordance with NFPA 30 and as specified in Section 3404.2.11.5.3.

*(Reason: Reference to Section 3404.2.11.5.3 amendment.)*

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**\*\*Add Section 3404.2.11.5.3 to read as follows:**

**3404.2.11.5.3 Dry sumps.** 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 are required.

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

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**\*\*Delete Section 3406.5.4.5 and replace with the following:**

**3406.5.4.5 Commercial, industrial, governmental or manufacturing.** Dispensing of Class II and III

## EXHIBIT D

motor vehicle fuel from tank vehicles into the fuel tanks of motor vehicles located at commercial, industrial, governmental or manufacturing establishments is allowed where permitted, provided such dispensing operations are conducted in accordance with Sections 3406.5.4.5.1 through 3406.5.4.5.3.

### **3406.5.4.5.1 Site requirements.**

1. Dispensing may occur at sites that have been permitted to conduct mobile fueling.
2. A detailed site plan shall be submitted with each application for a permit. The site plan must indicate:
  - a. all buildings, structures, and appurtenances on site and their use or function;
  - b. all uses adjacent to the property lines of the site;
  - c. the locations of all storm drain openings, adjacent waterways or wetlands;
  - d. information regarding slope, natural drainage, curbing, impounding and how a spill will be retained upon the site property; and,
  - e. The scale of the site plan.
3. The Code Official is authorized to impose limits upon: the times and/or days during which mobile fueling operations are allowed to take place and specific locations on a site where fueling is permitted.
4. Mobile fueling operations shall be conducted in areas not generally accessible to the public.
5. Mobile fueling shall not take place within 15 feet (4.572 m) of buildings, property lines, or combustible storage.

### **3406.5.4.5.2 Refueling Operator Requirements.**

1. The owner of a mobile fueling operations shall provide to the jurisdiction a written response plan which demonstrates readiness to respond to a fuel spill, carry out appropriate mitigation measures, and to indicate its process to properly dispose of contaminated materials when circumstances require.
2. The tank vehicle shall comply with the requirements of NFPA 385 and Local, State and Federal requirements. The tank vehicle's specific functions shall include that of supplying fuel to motor vehicle fuel tanks. The vehicle and all its equipment shall be maintained in good repair.
3. Signs prohibiting smoking or open flames within 25 feet (7.62 m) of the tank vehicle or the point of fueling shall be prominently posted on 3 sides of the vehicle including the back and both sides.
4. A fire extinguisher with a minimum rating of 40:BC shall be provided on the vehicle with signage clearly indicating its location.
5. The dispensing nozzles and hoses shall be of an approved and listed type.
6. The dispensing hose shall not be extended from the reel more than 100 feet (30.48m) in length.
7. Absorbent materials, non-water absorbent pads, a 10 foot (3.048 m) long containment boom, an approved container with lid, and a non-metallic shovel shall be provided to mitigate a minimum 5-gallon fuel spill.
8. Tanker vehicles shall be equipped with a fuel limit switch such as a count-back switch, limiting the amount of a single fueling operation to a maximum of 500 gallons (1893 L) between resettings of the limit switch.

**Exception:** Tankers utilizing remote emergency shut-off device capability where the operator constantly carries the shut-off device which, when activated, immediately causes flow of fuel from the tanker to cease.

9. Persons responsible for dispensing operations shall be trained in the appropriate mitigating actions in the event of a fire, leak, or spill. Training records shall be maintained by the dispensing company and shall be made available to the Code Official upon request.
10. Operators of tank vehicles used for mobile fueling operations shall have in their possession at all times an emergency communications device to notify the proper authorities in the event of an emergency.

### **3406.5.4.5.3 Operational Requirements.**

## EXHIBIT D

1. The tank vehicle dispensing equipment shall be constantly attended and operated only by designated personnel who are trained to handle and dispense motor fuels.
2. Prior to beginning dispensing operations, precautions shall be taken to assure ignition sources are not present.
3. The engines of vehicles being fueled shall be shut off during dispensing operations.
4. Night time fueling operations shall only take place in adequately lighted areas.
5. The tank vehicle shall be positioned with respect to vehicles being fueled so as to preclude traffic from driving over the delivery hose and between the tank vehicle and the motor vehicle being fueled.
6. During fueling operations, tank vehicle brakes shall be set, chock blocks shall be in place and warning lights shall be in operation.
7. Motor vehicle fuel tanks shall not be topped off.
8. The dispensing hose shall be properly placed on an approved reel or in an approved compartment prior to moving the tank vehicle.
9. The Code Official and other appropriate authorities shall be notified when a reportable spill or unauthorized discharge occurs.

*(Reason: Provides clarity and organization of the site, operation and use requirements.)*

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**\*\*Add Section 3803.2.1.8 to read as follows:**

**3803.2.1.8 Jewelry Repair, Dental Labs and Similar Occupancies.** Where natural gas service is not available, portable LP-Gas containers are allowed to be used to supply approved torch assemblies or similar appliances. Such containers shall not exceed 20-pound (9.0 kg) water capacity. Aggregate capacity shall not exceed 60-pound (27.2 kg) water capacity. Each device shall be separated from other containers by a distance of not less than 20 feet.

*(Reason: To provide a consistent and reasonable means of regulating the use of portable LP-Gas containers in these situations.)*

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**\*\*Section 3804.2; add an exception #2 to read as follows:**

**Exceptions:**

1. *{existing exception unchanged}*
2. Except as permitted in 308.3 and 3804.3.2, LP-gas containers are not permitted in residential areas.

*(Reason: To provide a consistent and reasonable means of regulating the use of portable LP-Gas containers. References regional amendment to IFC 3804.3.2.)*

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**\*\*Add Section 3804.3.2 to read as follows:**

**3804.3.2 Spas, Pool Heaters and other listed devices.** Where natural gas service is not available, LP-Gas containers are allowed to be used to supply spa and pool heaters or other listed devices. Such containers shall not exceed 250-gallon water capacity. See Table 3804.3 for location of containers.

*(Reason: Allows for an alternate fuel source.)*

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**EXHIBIT D**

*END*