2009 International Fire Code

******Section 102.1; change #3 to read as follows:***

3**.** Existing structures, facilities and conditions when required in *Chapter 46* or in specific sections of this code.

*****Section 102.7; change 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 47* 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.

******Section 105.3.3; change to read as follows:***

105.3.3 Occupancy Prohibited before Approval. The building or structure shall not be occupied prior to the fire code official's approval, conducting associated inspections verifying the applicable provisions of this code have been met.

******Section 105.7; add Section 105.7.15 to read as follows:***

105.7.15 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 105.7.15; add Section 105.7.16 to read as follows:***

105.7.16 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 1008*. 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 202; change definition of ATRIUM as follows:***

[B] ATRIUM. An opening connecting three or more stories . . . *{remaining language unchanged}*

******Section 202; amend definition of AMBULATORY HEALTH CARE FACILITY as follows:***

[B] AMBULATORY HEALTH CARE FACILITY. *{add to existing definition}*

This group may include but not be limited to the following:
- Dialysis centers
- Sedation dentistry
- Surgery centers
- Colonic centers
- Psychiatric centers

******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.

*****Section 202; add new definition of HIGH-RISE BUILDING 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.

*****Section 202; add new definition of ADDRESSABLE FIRE DETECTION SYSTEM as follows:***

ADDRESSABLE FIRE DETECTION SYSTEM. Refers to a fire alarm system: capable of providing identification of individual alarm-initiating devices. 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.

*****Section 202; add new definition of ANALOG ADDRESSABLE FIRE DETECTION SYSTEM as follows:***

ANALOG ADDRESSABLE FIRE DETECTION SYSTEM. Any system capable of: calculating a change in value, by direct 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.

*****Section 202; add new definition of SELF-SERVICE STORAGE FACILITY as follows:***

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.

*****Section 202; add new definition of STANDBY PERSONNEL as follows:***

STANDBY PERSONNEL. Qualified fire service personnel, approved by the Fire Chief. When utilized, the number required shall be directed, and approved by, by the Fire Chief. Charges for utilization of fire service personnel shall be calculated by the City of Benbrook.

*****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 silvi-cultural or range or wildlife management practices, prevention or control of disease or pests. 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. Local written policies as established by the Code Official.
3. Local Ordinances adopted by the City of Benbrook

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

307.4 Location. The location for burning, as described in *Section 307.2*, shall not be less than 300 feet (91 440 mm) from any structure, and provisions shall be made to prevent the fire from spreading to within 300 feet (91 440 mm) of any structure.

{*exceptions unchanged}*

*****Section 307.4.3, Exceptions: change to read as follows:**

Exceptions:

1. Portable outdoor fireplaces used at one and two-family *dwellings.*
2. Where buildings, balconies and decks are protected by an approved automatic sprinkler system.

*****Section 307.4.4; add Section 307.4.4 to read as follows:***

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

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

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

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

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

Exceptions:

1. One- and two-family dwellings, except that LP-gas containers are limited to a water capacity not greater than 50 pounds (22.68 kg) [nominal 20 pound (9.08 kg) LP-gas capacity] with an aggregate LP-gas capacity not to exceed 100 lbs (5 containers).
2. Where buildings, balconies and decks are protected by an approved automatic sprinkler system, except that LP-gas containers are limited to a water capacity not greater than 50 pounds (22.68 kg) [nominal 20 pound (9.08 kg) LP-gas capacity], with an aggregate LP-gas capacity not to exceed 40 lbs (2 containers).
3. *{remainder of text unchanged}*

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

Exceptions:

{language unchanged}

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

******Section 311.5; change 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, shall be marked as required by *Section 311.5.1 through 311.5.5.*

*****Section 401.3; add 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 501.4; change to read as follows:***

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

*****Section 503.1.1; add the following to the end of the first paragraph:***

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

*****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 24 feet (7315mm), exclusive of shoulders, except for approved security gates in accordance with *Section 503.6*, and an unobstructed vertical clearance of not less than 14 feet (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.

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

503.3 Marking. Striping, signs, or other markings, when approved by the fire code official, shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. Striping, signs and other markings shall be maintained in a clean and legible condition at all times and 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, when required by the fire code official, shall read "NO PARKING FIRE LANE" or "FIRE LANE NO PARKING" and shall be 12" wide and 18" high. Signs shall be painted on a white background with letters and borders in red, using not less than 2" lettering. Signs shall be permanently affixed to a stationary post and the bottom of the sign shall be six feet, six inches (6'6") above finished grade. Signs shall be spaced not more than fifty feet (50') apart along both sides of the fire lane. Signs may be installed on permanent buildings or walls or as approved by the Fire Chief.

*****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.

*****Section 505.1; change to read as follows:***

505.1 Address identification. 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.

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

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.

******Section 507.4; change to read as follows:***

507.4 Water supply test date and information. The water supply test used for hydraulic calculation of fire protection systems shall be conducted in accordance with *NFPA 291* "Recommended Practice for Fire Flow Testing and Marking of Hydrants" and within one year of sprinkler plan submittal. The fire code official shall be notified prior to the water supply test. Water supply tests shall be witnessed by the fire code official, as required. The exact location of the static/residual hydrant and the flow hydrant shall be indicated on the design drawings. All fire protection plan submittals shall be accompanied by a hard copy of the water-flow test report, or as approved by the fire code official. The report must indicate the dominant water tank level at the time of the test and the maximum and minimum operating levels of the tank, as well, or identify applicable water supply fluctuation. The licensed contractor must then design the fire protection system based on this fluctuation information, as per the applicable referenced National Fire Protection Agency (NFPA) standard.

******Section 507.5.4; change to read as follows:***

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

******Section 509.1.1; add new Section 509.1.1 to read as follows:***

509.1.1 Sign Requirements. Unless more stringent requirements apply, lettering for signs required by this section shall have a minimum height of two (2) inches when located inside a building and four (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, Exception; change exception to read as follows:***

> **Exception:** The aggregate capacity limit shall be permitted to be increased to 3,000 gallons (11,356 L) in accordance with all requirements of *Section 3404.2.9.5.1* and *Chapter 34.*

******Section 603.3.2.2; change to read as follows:***

603.3.2.2 Restricted use and connection. Tanks installed in accordance with *Section 603.3.2* shall be used only to supply fuel oil to fuel-burning equipment installed in accordance with *Section 603.3.2.4.* Connections between tanks and equipment supplied by such tanks shall be made using closed piping systems.

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

704.1 Enclosure. Interior vertical shafts, including but not limited to stairways, elevator hoist-ways, service and utility shafts, that connect two or more stories of a building shall be enclosed or protected in accordance with the codes in effect at the time of construction but, regardless of when constructed, not less than as required in *Chapter 46*. New floor openings in existing buildings shall comply with the *International Building Code (IBC).*

******Section 807.4.3.2; change to read as follows:***

807.4.3.2 Artwork. Artwork and teaching materials shall be limited on the walls of corridors to not more than 20 percent of the wall area and on the walls of classrooms to not more than 50 percent of each wall area. Such materials shall not be continuous from floor to ceiling or wall to wall.

Curtains, draperies, wall hangings and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of *NFPA 701* in accordance with *Section 807* or be non-combustible.

> **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.

******Section 807.4.4.2; change to read as follows:***

807.4.4.2 Artwork. Artwork and teaching materials shall be limited on the walls of corridors to not more than 20 percent of the wall area and on the walls of classrooms to not more than 50 percent of each wall area. Such materials shall not be continuous from floor to ceiling or wall to wall.

Curtains, draperies, wall hangings and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of *NFPA 701* in accordance with *Section 807* or be noncombustible.

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

*****Section 901.6.1; add Section 901.6.1.1 to read as follows:**

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

1. The piping between the Fire Department Connection (FDC) and the standpipe shall be hydrostatically tested for all FDC's on any type of standpipe system. Hydrostatic testing shall also be conducted in accordance with *NFPA 25* requirements for the different types of standpipe systems.

2. For any manual (dry or wet) standpipe system not having an automatic water supply capable of flowing water through the standpipe, the tester shall connect hose from a fire hydrant or portable pumping system (as approved by the fire code official) to each FDC, and flow water through the standpipe system to the roof outlet to verify that each inlet connection functions properly. 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 Fire Department Connection(s) (FDC) is not already provided with approved caps, the contractor shall install such caps for all FDC's, as required by the fire code official.

5. Upon successful completion of standpipe test, place a blue tag (as per Texas Administrative Code, Fire Sprinkler Rules for Inspection, Test and Maintenance Service (ITM) Tag) at the bottom of each standpipe riser in the building. The tag shall be check-marked as "Fifth Year" for Type of ITM, and the note on the back of the tag shall read "5 Year Standpipe Test" at a minimum.

6. The procedures required by Texas Administrative Code Fire Sprinkler Rules with regard to Yellow Tags and Red Tags or any deficiencies noted during the testing, including the required notification of the local Authority Having Jurisdiction (fire code official) shall be followed.

7. Additionally, records of the testing shall be maintained by the owner and contractor, if applicable, as required by the State Rules mentioned above and *NFPA 25*.

8. Standpipe system tests where water will be flowed external to the building shall not be conducted during freezing conditions or during the day prior to expected night time freezing conditions.

9. Contact the fire code official for requests to remove existing fire hose from Class II and III standpipe systems where employees are not trained in the utilization of this firefighting equipment. All standpipe hose valves must remain in place and be provided with an approved cap and chain when approval is given to remove hose by the fire code official.

***Section 901.7; change to read as follows:**

901.7 Systems out of service. Where a required fire protection system is out of service or in the event of an excessive number of activations, the fire department and the fire code official shall be notified immediately and, where required by the fire code official, the building shall either be evacuated or an *approved fire watch* shall be provided for all occupants left unprotected by the shut down until the fire protection system has been returned to service. *{remaining language unchanged}*

****Section 901.10; add Section 901.10 to read as follows:**

901.10 Discontinuation 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 903.1.1; change to read as follows:**

903.1.1 Alternative protection. *Alternative automatic fire-extinguishing systems complying with* Section 904 *shall be permitted in addition to automatic sprinkler protection where recognized by the applicable standard and approved by the fire code official.*

****Section 903.2; add the following:**

903.2 Where required. {*Language unchanged}…* Automatic Sprinklers shall not be installed in elevator machine rooms, elevator machine spaces, and elevator hoist-ways. Storage shall not be allowed within the elevator machine room. Signage shall be provided at the entry doors to the elevator machine room indicating "ELEVATOR MACHINERY – NO STORAGE ALLOWED."

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

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

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

> **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.

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

903.2.11.3 Buildings 35 feet or more in height. An automatic sprinkler system shall be installed throughout buildings with a floor level, other than penthouses in compliance with *Section 1509* of the *International Building Code*, that is located 35 feet (10 668mm) or more above the lowest level of fire department vehicle access.

Exception:

1. Open parking structures in compliance with *Section 406.3* of the *International Building Code*.

903.2.11.7 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.

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

903.2.11.9 Buildings Over 6,000 sq.ft. An automatic sprinkler system shall be installed throughout all buildings with a building area 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*.

Section 903.3.1.1.1; change to read as follows:

903.3.1.1.1 Exempt locations. When approved by the fire code official, automatic sprinklers shall not be required in the following rooms or areas where such *. . . {language 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.

Section 903.3.1.3; add the following:

903.3.1.3 NFPA 13D sprinkler systems. Where allowed, automatic sprinkler systems installed in one- and two-family dwellings and townhouses shall be installed throughout in accordance with *NFPA 13D* or in accordance with state law.

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.

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.

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 (FDC).

Section 903.6.3; add Section 903.6.3 to read as follows:

903.6.3 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*.

Section 905.2; change to read as follows:

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

Section 905.3.8; 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*.

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 language unchanged}.*

Section 905.4; add the following item #7:

---

7. When required by this Chapter, standpipe connections shall be placed adjacent to all required exits to the structure and at two hundred feet (200') intervals along major corridors thereafter.

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.

Section 906.1 {Where required}; delete Exception to Line Number 1:

Section 907.1.4; add Section 907.1.4 to read as follows:

907.1.4 Design Standards. All alarm systems new or replacement shall be addressable. Alarm systems serving more than twenty (20) smoke detectors shall be analog addressable.

> **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 eighteen (18) months of permit application.

Section 907.2.1; change to read as follows:

907.2.1 Group A. A manual fire alarm system that activates the occupant notification system in accordance with new *Section 907.6* shall be installed in Group A occupancies having an occupant load of 300 or more persons or more than 100 persons above or below the lowest level of exit discharge. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy. Activation of fire alarm notification appliances shall:

1. Cause illumination of the means of egress with light of not less than 1 foot-candle (11 lux) at the walking surface level, and

2. Stop any conflicting or confusing sounds and visual distractions.

Section 907.2.3; change to read as follows:*

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

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

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

Section 907.2.13; change to read as follows:*

907.2.13 High-rise buildings. Buildings with a floor used for human occupancy located more than 55 feet (16 764 mm) 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 907.6.2.2*.

Section 907.2.13, 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 (IBC), 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.

Section 907.5.2.6; add Section 907.5.2.6 to read as follows:

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

Section 907.7.1.1; add Section 907.7.1.1 to read as follows:

907.7.1.1 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.

Section 907.7.5.2; add Section 907.7.5.2 to read as follows:

907.7.5.2 Communication Requirements. All alarm systems, whether 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 910.1; change Exception #2 to read as follows:

2. 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. Automatic smoke and heat vents are prohibited.

Section 910.2; add subsections 910.2.3 with exceptions and 910.2.4 to read as follows:

910.2.3 Group H. Buildings and portions thereof used as a Group H occupancy as follows: 1. In occupancies classified as Group H-2 or H-3, any of which are more than 15,000 square feet (1394 m^2) in single floor area.

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.

910.2.4 Exit access travel distance increase. Buildings and portions thereof used as a Group F-1 or S-1 occupancy where the maximum exit access travel distance is increased in accordance with *Section 1016.3.*

****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

****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 greater than the temperature rating of the sprinklers installed.

*****Section 912.2; add Section 912.2.3 to read as follows:***

****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.*

*****Section 1016; add Section 1016.3 to read as follows:***

1016.3 Roof vent increase. In buildings that are one story in height, equipped with automatic 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 (122 m) for occupancies in Group F-1 or S-1.

****Section 1018.1; add Exception #5 to read as follows:***

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 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.

*****Section 1022.9; change to read as follows:***

1022.9 Smokeproof enclosures and pressurized stairways. In buildings required to comply with *Section 403 or 405* of the IBC, each of the exit enclosures serving a story with a floor surface located more than 55 feet (16 764 mm) above the lowest level of fire *. . . {remainder of section unchanged}.*

****Section 1030.2; change to read as follows:***

1030.2 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. Security devices affecting means of egress shall be subject to approval of the fire code official.

*****Section 1501.2; delete the section.***

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

1504.4 Fire Protection. New and existing spray booths and spray rooms shall be protected by an *approved* automatic fire-extinguishing system … *{remainder of section unchanged}* …

****Section 2202.1 Definitions; add to definition of REPAIR GARAGE as follows:**

REPAIR GARAGE. 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.

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

2204.1 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 2204.3*.

At any time the qualified attendant of item #1 or #2 above is not present, such operations shall be considered as an Un-attended self-service facility and shall also comply with *Section 2204.3.*

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

Any building classified as a Group S occupancy or Speculative Building exceeding 6,000 sq.ft. that has a clear height in excess of 14 feet, making it possible to be used for storage in excess of 12 feet, shall be considered to be high-piled storage. When a specific product cannot be identified, a fire protection system and life safety features shall be installed as for Class IV commodities, to the maximum pile height.

****Table 2306.2; change text of "footnote j" to read as follows:**

j. Where areas of buildings are equipped with early suppression fast-response (ESFR sprinklers, manual smoke and heat vents or manually activated engineered mechanical smoke exhaust systems shall be required within these areas).

***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. The use of fireworks for approved display as allowed in *Section 3308*.

***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, 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.

Section 3403.6; add a sentence to read as follows:

3403.6 Piping systems. Piping systems, and their component parts, for flammable and combustible liquids shall be in accordance with *Sections 3403.6.1* through *3403.6.11*. An approved method of secondary containment shall be provided for underground tank and piping systems.

****Section 3404.2.9.5.1; add Section 3404.2.9.5.1 to read as follows:***

3404.2.9.5.1 Combustible liquid storage tanks inside of buildings. The maximum aggregate allowable quantity limit shall be 3,000 gallons (11 356 L) of Class II or III combustible liquid for storage in protected aboveground tanks complying with *Section 3404.2.9.7* when all of the following conditions are met:

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

The quantity of combustible liquid stored in tanks complying with this section shall not be counted towards the maximum allowable quantity set forth in *Table 2703.1.1(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 3404.2.11.5; add a sentence to read as follows:

3404.2.11.5 Leak Prevention. Leak prevention for underground tanks shall comply with *Sections 3404.2.11.5.1 through 3404.2.11.5.3.* An approved method of secondary containment shall be provided for underground tank and piping systems.

Section 3404.2.11.5.2; change to read as follows:

3404.2.11.5.2 Leak detection. Underground storage tank systems shall be provided with an approved method of leak detection from any component of the system that is designed and installed in accordance with *NFPA 30* and as specified in *Section 3404.2.11.5.3.*

Section 3404.2.11.5.3; add Section 3404.2.11.5.3 to read as follows:

3404.2.11.5.3 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 are required.

Section 3406.5.4.5; 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 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 fire 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 operation shall provide to the City of Benbrook with 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 re-settings 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 fire 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.

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.

*****Section 3803.2.1; 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.

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

Exceptions:
1. *{existing language unchanged}*
2. Except as permitted in *Section 308 and 3804.3.2*, LP-gas containers are not permitted in residential areas.

******Section 3804.3; 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, an LP-Gas container is allowed to be used to supply spa and pool heaters or other listed devices. Such container shall not exceed 250-gallon water capacity per lot. See *Table 3804.3* for location of containers.

> **Exception:** Lots where LP can be off loaded wholly on the property where the tank is located; may install 500 gallon above ground or 1,000 gallon underground approved containers.

******Table 4604.7, footnote a; change to read as follows:***

a. Buildings constructed under the 2003 or 2006 IBC and equipped throughout with an automatic sprinkler system in accordance with *Section 903.3.1.1 or 903.3.1.2.*

******Section 4604.23; change to read as follows:***

4604.23 Egress path markings. Existing buildings of Groups A, B, E, I, M, and R-1 having occupied floors located more than 55 feet (16 764 mm) above the lowest level of fire department vehicle access shall be provided with luminous *egress* path markings in accordance with *Section 1024.*

Exception: Open, unenclosed stairwells in historic buildings designated as historic under a state or local historic preservation program.