

ORDINANCE NO. 1401-12-2016

AN ORDINANCE OF THE CITY OF GAINESVILLE, TEXAS, REPEALING CHAPTER 5, ARTICLE I SECTIONS 5-1 THROUGH 5-8 AND 5-10; RENUMBERING SECTION 5-9 TO 5-12, SECTION 5-11 TO 5-13, AND SECTIONS 5-12 - 5-25 TO 5-14 - 5-25; ADDING CHAPTER 5, ARTICLE I. BUILDING STANDARDS, SECTIONS 5-1 THROUGH 5-11; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A CONFLICTS CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Gainesville, Texas, (the "City") encourages the safe development of its built environment; and

WHEREAS, the City recognizes that some construction techniques and materials have changed since it last adopted the 2009 International Codes; and

WHEREAS, the City recognizes the importance of its International Standards Organization (ISO) Rating and the dependence of that rating on the City's adopting the most recent International Codes; and

WHEREAS, the North Central Texas Council of Governments hosted a working group comprised of industry representatives and building officials across the North Texas area to draft amendments to the 2015 International Codes to meet the requirements of region; and

WHEREAS, the City's comprehensive plan recommends high standards for building construction; and

WHEREAS, this Ordinance incorporates the recommendations of the comprehensive plan;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GAINESVILLE, TEXAS:

Section 1. Findings.

The above and foregoing recitals are hereby found to be true and correct and are incorporated herein as findings of fact. The City Council hereby further finds and determines that the rules, regulations, terms, conditions, provisions and requirements of this Ordinance are reasonable and necessary to protect the public health, safety and quality of life.

Section 2. Repealing Articles.

Repealing Chapter 5, Article I, Sections 5-1. through 5-8. and 5-10.

Section 3. Renumbering Articles.

Renumber Sections 5-9. to 5-12., 5-11. to 5-13., and 5-12.—5-25. to 5-14.—5-25.

Section 4. Adding Article I Building Standards, Sections 5-1 Through 5-11.

Chapter 5 Buildings and Building Regulations, Article I Building Standards shall read:**Sec. 5-1. - Technical codes adopted.**

(a) The following technical codes are hereby adopted with all amendments and specified appendices by the city:

- (1) 2015 International Building Code.
- (2) 2015 International Residential Code.
- (3) 2015 International Fire Code with appendices.
- (4) 2014 National Electric Code NFPA 70.
- (5) 2015 International Plumbing Code.
- (6) 2015 International Fuel Gas Code.
- (7) 2015 International Mechanical Code.
- (8) 2015 International Energy Conservation Code.
- (9) 2015 International Property Maintenance Code.

(b) A copy of each code and such future amendments shall be retained in the Community Services Department of the City of Gainesville, Texas.

Sec. 5-2. - General exceptions and amendments applicable to all technical codes.

[General exceptions and amendments:]

- (1) In all code editions, the "name of jurisdiction" where mentioned, shall mean the City of Gainesville, Texas.
- (2) All references in the technical codes to flood-related issues shall also include reference to the City of Gainesville Flood Control Ordinance.
- (3) All references to "board of appeals" shall mean the City of Gainesville Board of Appeals and their adopted regulations.
- (4) All references to the "department of building safety" and various other types of inspection agencies shall mean the City of Gainesville Community Services Department.

- (5) Where used, the term “code official” or similar related titles, shall mean the community services director or his appointed representatives.
- (6) Where used, the term fire “official” shall mean the fire marshal or his appointed representatives.
- (7) Decisions and interpretations of code issues by the code official or fire official are final unless otherwise provided as part of the Board of Appeals process.
- (8) Where mentioned, the phrases “permit fees,” “permit schedule” or similar terms shall refer to the City of Gainesville Fee Schedule. The city council shall, by resolution, establish a schedule of fees for permits, certificates of occupancy, zoning change requests, plat review and recording Board of Appeals, Building Standards Commission, and Planning and Zoning and for other matters pertaining to this article; and a collection procedure for the administration thereof.
- (9) Once permit applications are approved and signed by the Building Official or his representative, a permit shall be issued and signed by the applicant.
- (10) No permits for new buildings, structures or developments shall be issued until the stormwater drainage plan and calculations have been reviewed and approved by city staff.
- (11) No permits shall be issued for new construction or remodeling work of a commercial structure that involves the demolition of walls, removal of sheetrock, floor tile or other building components until an asbestos survey/inspection is done in accordance with state law. A copy of the inspection must be presented to obtain a permit. If asbestos containing materials are found, a copy of the report covering the abatement of the materials must also be presented before a permit can be issued.
- (12) Where “refund policy” is mentioned in the various codes, it shall refer to the City of Gainesville refund policy which allows, when requested in writing and approved; within the first week of a permit being issued, a full refund to be granted. From one (1) week to thirty (30) days, half of the permit fee may be refunded. After thirty (30) days, no refund will be given. However, a refund may be considered for approval only if no work or construction of any kind has been started on the project. No refunds will be issued for fees associated with third party reviews and/or inspections.
- (13) Permits are not transferable from one (1) person or contractor to another.
- (14) Any condition or nonconformance that escapes the notice of the inspector during the course of normal inspections is still the responsibility of the contractor or owner to correct.

- (15) All references in the technical codes that refer to accessibility or ADA issues shall use the State of Texas Architectural Barrier Standards when the state standard is more restrictive.
- (16) Notices or citations sent by certified mail that have return receipts stamped unclaimed or undeliverable shall be deemed to have been delivered.
- (17) Citations may be issued for violations of the provisions of all adopted and amended technical codes. The maximum fine per violation is two-thousand dollars (\$2,000.00) per day, with each day that the violation exists or continues being a separate violation.
- (18) All general contractors, contractors of major trades and contractors with state licenses shall register with the city prior to starting any work in the city. A copy of their liability insurance or a surety bond in the amount of \$1,000,000 per occurrence is required.
- (19) Wood shingles and shakes are not permitted in the City of Gainesville.
- (20) Before any water, gas or electric service is extended to any new construction, the requisite permit shall first have been paid for and obtained from the city.
- (21) All new subdivisions shall have underground electric services to structures.
- (22) Permits for accessory buildings will be granted only for premises where a primary structure already exists.
- (23) All single-family dwellings hereinafter constructed shall be provided with off-street parking space for two (2) automobiles at the time of original construction. These spaces shall not be single row spaces, and designed such that no portion of either vehicle encroaches into the minimum area reserved for front, rear and side. For drives fifty-five (55) feet or less in length from the property line to the home, the drives must be concrete or asphalt. For properties with drives longer than fifty-five feet from the property line to the home, the drive approach plus ten feet past the property line must be concrete or asphalt. The remainder of the drive may be gravel with a minimum of two concrete or asphalt parking spaces at the home.
- (24) Where the owner of an existing dwelling desires to convert garage space into living area, such construction shall conform to the city's building codes. Plans for the conversion shall be submitted as required by the city building official at the time of application for a building permit. Furthermore, parking space must be retained that is adequate for two (2) vehicles, such that no portion of either vehicle encroaches into the minimum area reserved for front, rear and side yards. Finally, no new carport or

garage shall be constructed in front of the old garage unless the required setbacks can be met.

- (25) The minimum size for any new residential building shall be one thousand two hundred (1,200) square feet, not including the garage nor uncovered/covered decks and patios.
- (26) The city does not enforce deed restrictions.
- (27) All commercial buildings require an asbestos survey by a state-certified asbestos inspector prior to the issuance of a permit for any type of demolition work. If any asbestos is found, it must be abated prior to the issuance of any demolition permits.
- (28) Foundations and flatwork for a demolished structure or building shall also be demolished at the same time as the demolition of the building and removed from the property.
- (29) References in the various codes to “atmospheric-type vacuum breaker,” “pressure-type vacuum breaker” and “reduced pressure principle backflow preventer” for lawn irrigation systems shall be replaced with “double-check backflow preventer assembly.”
- (30) Additional foundation requirements.
 - a. Whenever a provision of this section or any other provision of this article, or any provision in any other law, ordinance, resolution, rule or regulation of any kind contains any restrictions covering any of the same subject matter, whichever restrictions are more restrictive or impose higher standards or requirements shall govern. Any provisions of this section that are in conflict with state law shall be governed by the state law to the extent of the conflict only.
 - b. For residential accessory structures with foundations, all interior spot piers located above ground shall be constructed of poured concrete tied with a minimum of four (4), ½” steel reinforcing bars centered in the pier. Footings shall be a minimum of eighteen (18) inches deep with a minimum twelve (12) inches of depth in undisturbed soil and ten (10) inches in width with four (4), 5/8” steel reinforcement bars.
 - c. All commercial and residential slab foundations shall be engineered other than residential accessory structures. (See (30)(b) above.) Professionally engineered slab design documentation must be submitted prior to permitting, and a letter from the engineer stating that the completed work meets the approved design must be submitted after completion.

- d. The finished floor elevation of foundations not located in flood zones shall be at least twelve (12) inches above the top of curb or edge of street elevation, whichever is higher. In the event that the grading of a lot is not suitable for this rule, an alternate grading plan must be submitted for approval. The alternate plan must include provisions for stormwater drainage. Foundations located in flood zones must comply with the provisions of the City of Gainesville Flood Control Ordinance.
- (31) Contractors shall insure all required setbacks addressed by the City of Gainesville Zoning Ordinance are observed.
 - (32) Contractors are responsible for notifying the Community Services Department when they have stages of construction ready for inspection.
 - (33) All new swimming pools shall be constructed in accordance with the Virginia Graeme Baker Pool and Spa Act of 2007.
 - (34) All fire code amendments shall also apply to the related section of the adopted building code or other referenced code.
 - (35) Certificates of occupancy shall not be issued until all deficiencies noted on the inspection forms have been corrected. Deficiencies shall be corrected within two (2) weeks of the date of the inspection. Extensions of time shall be requested in writing giving reasons for the request.
 - (36) Certificates of occupancy may be revoked at any time and utilities ordered disconnected by the building official or the fire marshal for nonconformance with city or state codes or ordinances.
 - (37) General contractors are responsible for maintaining grass, weeds, trash and other code enforcement-related issues during the course of their projects.
 - (38) Real estate agents, property management companies, auction companies and similar entities are responsible for grass, weeds and other code enforcement issues for properties under their control.
 - (39) Roofs shall be of one (1) color shingles or other approved roofing material.
 - (40) Houses shall not be painted in stripes, checks, swirls or similar types of patterns.

Sec. 5-3. - Specific amendments to the 2015 International Building Code.

Specific amendments:

- (1) **101.4 Referenced Codes.** The other codes listed in Sections 101.4.1 through 101.4.8 and referenced elsewhere in this code, when specifically adopted, shall be considered part of the requirements of this code to the prescribed extent of each such reference. 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 Electrical Code shall mean the Electrical Code as adopted.
- (2) **101.4.8 Electrical.** The provisions of the Electrical Code shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings and appurtenances thereto.
- (3) **104 DUTIES AND POWERS OF THE BUILDING OFFICIAL;** The following sections are deleted:

104.2.1 Determination of substantially improved or substantially damaged existing buildings and structures in flood hazard areas.

104.10.1 Flood hazard areas.

- (4) **Section 105 PERMITS;** added the following sentence:

Permits for projects in a floodplain area also require an approved Floodplain Development Permit prior to the issuance of a building permit.
- (5) Deleted paragraphs **105.1.1 Annual permits** and paragraph **105.1.2 Annual permit records.**
- (6) **Paragraph 105.2 Work exempt from permits.** Under Buildings, deleted subparagraphs 1—6 and 9-13.
- (7) **109.7 Re-inspection Fee.** A fee as established by city council resolution may be charged when:
 1. The inspection called for is not ready when the inspector arrives;
 2. No building address or permit card is clearly posted;
 3. City approved plans are not on the job site available to the inspector;
 4. The building is locked or work otherwise not available for inspection when called;
 5. The job site is red-tagged twice for the same item;
 6. The original red tag has been removed from the job site.
 7. Failure to maintain erosion control, trash control or tree protection.Any re-inspection fees assessed shall be paid before any more inspections are made on that job site.

(8) **Section 110.3.5; Lath, gypsum board and gypsum panel product inspection.**

Delete the following exception:

Exception: Gypsum board and gypsum panel products that are not part of a fire resistance rated assembly or a shear assembly.

(9) **Section 111 CERTIFICATE OF OCCUPANCY;** added the following paragraph:

111.2.1: Each new tenant or owner shall require a new Certificate of Occupancy.

(10) **Section 115.2 Issuance;** add the following to the end of paragraph:

A stop work order may also be posted in a conspicuous place at the job site and shall state the nature of the violation.

(11) **Section 116.3 Notice;** add the following sentence to the end of the paragraph:

Rejection of the terms shall refer the case to the appropriate city authority as determined by City Council for a final determination.

(12) **Section 202 DEFINITIONS**

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

- Dialysis centers
- Sedation dentistry
- Surgery centers
- Colonic centers
- Psychiatric centers

(13) **Section 202 DEFINITIONS**

ASSISTED LIVING FACILITIES. A building or part thereof housing persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment which provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff.

(14) **Section 202 DEFINITIONS**

ATRIUM. An opening connecting three or more stories... {Balance remains unchanged}

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

(15) **Section 202 DEFINITIONS**

BED AND BREAKFAST. A private residence having a limited number of sleeping rooms which are available for transient guests who have paid for accommodations.

(16) **Section 202 DEFINITIONS**

Fire separation distance.

4. In no case shall the fire separation distance between commercial/industrial buildings on the same lot be less than 24 feet in any direction. Any other distance, whether greater or smaller, shall be determined on a case by case basis by the Fire Marshal.

(17) **Section 202 DEFINITIONS**

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

(18) **Section 202 DEFINITIONS**

SPECIAL INSPECTOR. A qualified person employed or retained by an approved agency who shall prove to the satisfaction of the registered design professional in responsible charge and the Building Official as having the competence necessary to inspect a particular type of construction requiring special inspection.

(19) Section 303.1.3; add a sentence to read as follows:

303.1.3 Associated with Group E occupancies. A room or space used for assembly purposes that is associated with a Group E occupancy is not considered a separate occupancy except when applying the assembly requirements of Chapter 10 and 11.

(20) Section 304.1; add the following to the list of occupancies:

Fire stations

Police stations with detention facilities for 5 or less

- (21) Section 307.1.1; add the following sentence to Exception 4:

4. Cleaning establishments... {Text unchanged} ...with Section 707 or 1-hour horizontal assemblies constructed in accordance with Section 711 or both. See also IFC Chapter 21, Dry Cleaning Plant provisions.

- (22) Section 310.1 Residential Group R. Add the following:

Residential Group R includes the use of a building or structure or a portion thereof for sleeping purposes when not classified as an Institutional Group I. Residential Occupancies shall include the following:

R-1 Residential occupancies containing sleeping units where the occupants are primarily transient in nature, including:

Bed and Breakfasts

Boarding Houses (transient)

Hotels (transient)

Motels (transient)

Congregant living facilities (transient) with 10 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

- (23) Section 403.1, Exception 3; change to read as follows:

3. The open air portion of a building {remainder unchanged}

- (24) **Section 403.3, Exception**; delete item 2.

- (25) Section 403.3.2; change to read as follows:

[F] 403.3.2 Water supply to required fire pumps. In buildings that are more than 120 feet (36.5 m) in building height, required fire pumps shall be supplied by connections to no fewer than two water mains located in different streets. Separate supply piping shall be provided between each connection to the water main and the pumps. Each connection and the supply piping between the connection and the pumps shall be sized to supply the flow and pressure required for the pumps to operate.

Exception: {No change to exception.}

(26) **Section 404.5; delete Exception.**

(27) Delete **Section 406.3.5.1 Carport separation.**

(28) **Section 406.8 Repair Garages.** Add a second paragraph to read as follows:

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.

(29) Delete **SECTION 423 STORM SHELTERS.** Add the following sentence to read as follows:

All schools shall follow state law requirements for construction of storm shelters and/or safe rooms.

(30) Section 506.3.2.1; add sentence to read as follows:

506.2.2.2 Open Space Limits. Such open space shall be either on the same lot or dedicated for public use and shall be accessed from a street or approved fire lane. In order to be considered as accessible, if not in direct contact with a street or fire lane, a minimum 10-foot wide pathway meeting fire department access from the street or approved fire lane shall be provided.

(31) **Section 712.1.9, change item 5 to read as follows:**

4. Is not open to a corridor in Group I and H occupancies.

(32) **Section 713.14.1.** Add the following exception:

Elevators serving four levels over 55 feet (16,764 mm) above the lowest level of fire department vehicle access in high-rise buildings.

(33) Section 901.6.1; add Section 901.6.1.1 to read as follows:

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

1. The piping between the Fire Department Connection (FDC) and the standpipe shall be backflushed when foreign material is present, and also hydrostatically tested for all FDC's on any type of standpipe system. Hydrostatic testing shall also be conducted in accordance with NFPA 25

requirements for the different types of standpipe systems. North Central Texas Council of Governments 6 As of August 2015 IBC Amendments.

2. For any manual (dry or wet) standpipe system not having an automatic water supply capable of flowing water through the standpipe, the tester shall connect hose from a fire hydrant or portable pumping system (as approved by the fire code official) to each FDC, and flow water through the standpipe system to the roof outlet to verify that each inlet connection functions properly. Confirm that there are no open hose valves prior to introducing water into a dry standpipe. There is no required pressure criteria at the outlet. Verify that check valves function properly and that there are no closed control valves on the system.

3. Any pressure relief, reducing, or control valves shall be tested in accordance with the requirements of NFPA 25. All hose valves shall be exercised.

4. If the FDC is not already provided with approved caps, the contractor shall install such caps for all FDC's as required by the fire code official.

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

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

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

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

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

(34) Section 903.1.1; change to read as follows:

[F] 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 or as approved by the fire code official.

(35) Section 903.2; add the following:

[F] 903.2 Where required. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12. Automatic Sprinklers shall not be installed in elevator machine rooms, elevator machine spaces, and elevator hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances. Storage shall not be allowed within the elevator machine room. Signage shall be provided at the entry doors to the elevator machine room indicating “ELEVATOR MACHINERY – NO STORAGE ALLOWED.”

(36) **Section 903.2; delete the exception.**

(37) Add to the end of 903.2.8, "...in accordance with the International Fire Code as adopted by the City of Gainesville and where required by state law."

(38) Section 903.2.9; add Section 903.2.9.3 to read as follows:

[F] 903.2.9.3 Self-service storage facility. An automatic sprinkler system shall be installed throughout all enclosed self-service storage facilities in excess of 6,000 square feet.

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.

(39) **Section 903.2.11; change 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 that have one or more stories other than penthouses in compliance with Section 1510 of the International Building Code, located 35 feet (10,668 mm) or more above the lowest level of fire department vehicle access, measured to the finished floor.

Exception:

Open parking structures in compliance with Section 406.5 of the International Building Code, having no other occupancies above the subject garage.

(40) Add the following section:

903.2.11.7 High-Piled Combustible Storage. For any building with a clear height exceeding 12 feet (4572 mm), see Chapter 32 of the IFC to determine if those provisions apply.

- (41) Add the following section:

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.

- (42) **Section 903.3.1.1.1;** change to read as follows:

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

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the code official.
3. Generator and transformer rooms, under the direct control of a public utility, separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire resistance rating of not less than 2 hours.
4. Elevator machine rooms, and machinery spaces, and hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances.

- (43) **Section 903.3.1.2.3;** add section to read as follows:

[F] Section 903.3.1.2.3 Attics, Open Breezeways, and Attached Garages. Sprinkler protection is required in attic spaces of such buildings two or more stories in height, in accordance with NFPA 13 and or NFPA 13R requirements, open breezeways, and attached garages.

- (44) **Section 903.3.1.3;** change to read as follows:

[F] 903.3.1.3 NFPA 13D sprinkler systems. Automatic sprinkler systems installed in one- and two-family dwellings; Group R-3; Group R-4 Condition 1 and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D or in accordance with state law.

- (45) **Section 903.3.1.4;** add to read as follows:

[F] 903.3.1.4 Freeze protection. Freeze protection systems for automatic fire sprinkler systems shall be in accordance with the requirements of the applicable referenced NFPA standard and this section.

903.3.1.4.1 Attics. Only dry-pipe, preaction, or listed antifreeze automatic fire sprinkler systems shall be allowed to protect attic spaces.

Exception: Wet-pipe fire sprinkler systems shall be allowed to protect non-ventilated attic spaces where:

1. The attic sprinklers are supplied by a separate floor control valve assembly to allow ease of draining the attic system without impairing sprinklers throughout the rest of the building, and
2. Adequate heat shall be provided for freeze protection as per the applicable referenced NFPA standard, and
3. The attic space is a part of the building's thermal, or heat, envelope, such that insulation is provided at the roof deck, rather than at the ceiling level.

903.3.1.4.2 Heat trace/insulation. Heat trace/insulation shall only be allowed where approved by the fire code official for small sections of large diameter water-filled pipe.

(46) **Section 903.3.5;** add a second paragraph to read as follows:

[F] Water supply as required for such systems shall be provided in conformance with the supply requirements of the respective standards; however, every water-based fire protection system shall be designed with a 10 psi safety factor. Reference Section 507.4 for additional design requirements.

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

[F] 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.

(48) **Section 903.4.2;** add second paragraph to read as follows:

[F] 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.

(49) **Section 905.2;** change to read as follows:

[F] 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.

(50) **Section 905.3;** add Section 905.3.9 and exception to read as follows:

[F] 905.3.9 Buildings exceeding 10,000 sq. ft. In buildings exceeding 10,000 square feet in area per story and where any portion of the building's interior area is more than 150 feet (45,720 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access, Class I automatic wet or manual wet standpipes shall be provided.

Exception:

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

(51) **Section 905.4,** change Item 1., 3., and 5. and add Item 7. to read as follows:

[F] 1. In every required exit stairway, a hose connection shall be provided for each story above and below grade plane. Hose connections shall be located at an intermediate landing between stories, unless otherwise approved by the fire code official.

2. {No change.}

3. In every exit passageway, at the entrance from the exit passageway to other areas of a building.

Exception: Where floor areas adjacent to an exit passageway are reachable from an exit stairway hose connection by a {No change to rest.}

4. {No change.}

5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a two-way a hose connection shall be located to serve the roof or at the highest landing of an interior exit stairway with stair access to the roof provided in accordance with Section 1011.12.

6. {No change.}

7. When required by this Chapter, standpipe connections shall be placed adjacent to all required exits to the structure and at one-hundred fifty feet (150') intervals along major corridors thereafter, or as otherwise approved by the fire code official.

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

[F] 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.

(53) Add the following:

907.1.4 Design Standards. All alarm systems new or replacement serving 20 or more alarm actuation 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 adoption of this code, as adopted, exceeds 30% of the building. When cumulative building remodel or expansion exceeds 50% of the building, occupant must comply within 18 months of permit application.

(54) **Section 907.2.1;** change to read as follows:

[F] 907.2.1 Group A. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies having an occupant load of 300 or more persons or more than 100 persons above or below the lowest level of exit discharge. Group A occupancies not separated from one another in accordance with Section 707.3. 10 of the International Building Code shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy.

Exception: {No change.}

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.

(55) **Section 907.2.3;** change to read as follows:

[F] 907.2.3 Group E. A manual fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group E educational occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. An approved smoke detection system shall be installed in Group E day care occupancies. Unless separated by a minimum of 100' open space, all buildings, whether portable buildings or the main building, will be considered one building for alarm occupant load consideration and interconnection of alarm systems.

Exceptions:

1. A manual fire alarm system is not required in Group E educational and day care occupancies with a load of 30 or less 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.)

{No change to remainder of exceptions.}

(56) **Section 907.2.13, Exception 3;** change to read as follows:

[F] **3.** Open air portions of buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the International Building Code; however, this exception does not apply to accessory uses including but not limited to sky boxes, restaurants and similarly enclosed areas.

(57) **Section 907.4.2;** add Section 907.4.2.7 to read as follows:

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

(58) **Section 907.6.1;** add Section 907.6.1.1 to read as follows:

[F] **907.6.1.1 Wiring Installation.** All fire alarm systems shall be installed in such a manner that a failure of any single initiating device or single open in an initiating circuit conductor will not interfere with the normal operation of other such devices. All signaling line circuits (SLC) shall be installed in such a way that a single open will not interfere with the operation of any addressable devices (Class A). Outgoing and return SLC conductors shall be installed in accordance with NFPA 72 requirements for Class A circuits and shall have a minimum of four feet separation horizontal and one-foot vertical between supply and return circuit conductors. The initiating device circuit (IDC) from a signaling line circuit interface device may be wired Class B, provided the distance from the interface device to the initiating device is ten feet or less.

(59) **Section 907.6.3;** delete all four Exceptions.

(60) **Section 907.6.6;** – add sentence at end of paragraph to read as follows:

[F] See 907.6.3 for the required information transmitted to the supervising station.

(61) **Section [F] 907.6.5.3 Communication requirements.** All alarm systems, new or replacement, shall transmit alarm, supervisory and trouble signals descriptively to the approved central station, remote supervisory station or proprietary supervising station as defined in NFPA 72, with the correct device designation and location of

addressable device identification. Alarms shall not be permitted to be transmitted as a General Alarm or Zone condition.

(62) **Section 909.22**; add to read as follows:

[F] 909.22 Stairway or ramp pressurization alternative. Where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and the stair pressurization alternative is chosen for compliance with Building Code requirements for a smokeproof enclosure, interior exit stairways or ramps shall be pressurized to a minimum of 0.10 inches of water (25 Pa) and a maximum of 0.35 inches of water (87 Pa) in the shaft relative to the building measured with all interior exit stairway and ramp doors closed under maximum anticipated conditions of stack effect and wind effect. Such systems shall comply with Section 909, including the installation of a separate fire-fighter's smoke control panel as per Section 909.16, and a Smoke Control Permit shall be required from the Fire Department as per Section 105.7.

[F] 909.22.1 Ventilating equipment. The activation of ventilating equipment for the stair or ramp pressurization system shall be by smoke detectors installed at each floor level at an approved location at the entrance to the smokeproof enclosure. When the closing device for the stairway or ramp shaft and vestibule doors is activated by smoke detection or power failure, mechanical equipment shall activate and operate at the required performance levels. Smoke detectors shall be installed in accordance with Section 907.3.

[F] 909.22.1.1 Ventilation systems. Smokeproof enclosure ventilation systems shall be independent of other building ventilation systems. The equipment, control wiring, power wiring and ductwork shall comply with one of the following:

1. Equipment, control wiring, power wiring and ductwork shall be located exterior to the building and directly connected to the smokeproof enclosure or connected to the smokeproof enclosure by ductwork enclosed by not less than 2-hour fire barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.
2. Equipment, control wiring, power wiring and ductwork shall be located within the smokeproof enclosure with intake or exhaust directly from and to the outside or through ductwork enclosed North Central Texas Council of Governments 13 As of August 2015 IBC Amendments by not less than 2-hour barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.
3. Equipment, control wiring, power wiring and ductwork shall be located within the building if separated from the remainder of the building, including other mechanical equipment, by not less than 2-hour fire barriers constructed

in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.

Exceptions:

1. Control wiring and power wiring utilizing a 2-hour rated cable or cable system.
2. Where encased with not less than 2 inches (51 mm) of concrete.
3. Control wiring and power wiring protected by a listed electrical circuit protective systems with a fire-resistance rating of not less than 2 hours.

[F] 909.22.1.2 Standby power. Mechanical vestibule and stairway and ramp shaft ventilation systems and automatic fire detection systems shall be provided with standby power in accordance with Section 2702 of the Building Code.

[F] 909.22.1.3 Acceptance and testing. Before the mechanical equipment is approved, the system shall be tested in the presence of the fire code official to confirm that the system is operating in compliance with these requirements.

(63) **Section 910.2;** amend Exception 2. and 3.to read as follows:

[F] 2. Only manual smoke and heat removal shall ~~not~~ be required in areas of buildings equipped with early suppression fast-response (ESFR) sprinklers. Automatic smoke and heat removal is prohibited.

3. Only manual smoke and heat removal shall not be required in areas of buildings equipped with control mode special application sprinklers with a response time index of $50(m \cdot S)^{1/2}$ or less that are listed to control a fire in stored commodities with 12 or fewer sprinklers. Automatic smoke and heat removal is prohibited.

(64) **Section 910.2;** add subsections 910.2.3 with exceptions to read as follows:

[F] 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 m²) in single floor area. Exception: Buildings of noncombustible construction containing only noncombustible materials.
2. In areas of buildings in Group H used for storing Class 2, 3, and 4 liquid and solid oxidizers, Class 1 and unclassified detonable organic peroxides, Class 3 and 4 unstable (reactive) materials, or Class 2 or 3 water-reactive materials as required for a high-hazard commodity classification.

Exception: Buildings of noncombustible construction containing only noncombustible materials.

[F] 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 1016.2.2.

(65) **Section 910.3;** add section 910.3.4 to read as follows:

[F] 910.3.4 Vent operation. Smoke and heat vents shall be capable of being operated by approved automatic and manual means. Automatic operation of smoke and heat vents shall conform to the provisions of Sections 910.3.2.1 through 910.3.2.3.

[F] 910.3.4.1 Sprinklered buildings. Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall be designed to operate automatically. The automatic operating mechanism of the smoke and heat vents shall operate at a temperature rating at least 100 degrees F (approximately 38 degrees Celsius) greater than the temperature rating of the sprinklers installed.

Exception: Manual only system per 910.2

[F] 910.3.4.2 Nonsprinklered buildings. Where installed in buildings not equipped with an approved automatic sprinkler system, smoke and heat vents shall operate automatically by actuation of a heat-responsive device rated at between 100°F (56°C) and 220°F (122°C) above ambient.

Exception: Listed gravity-operated drop out vents.

(66) **Section 910.4.3.1;** amend to read as follows:

[F] 910.4.3.1 Makeup air. Makeup air openings shall be provided within 6 feet (1829 mm) of the floor level. Operation of makeup air openings shall be automatic. The minimum gross area of makeup air inlets shall be 8 square feet per 1,000 cubic feet per minute (0.74 m² per 0.4719 m³/s) of smoke exhaust.

(67) **Section 910.4.4;** amend to read as follows:

[F] 910.4.4 Activation. The mechanical smoke removal system shall be activated automatically by the automatic sprinkler system or by an approved fire detection system. Individual manual controls shall also be provided.

Exception: Manual only systems per Section 910.2.

(68) **Section 912.2;** add Section 912.2.3 to read as follows:

[F] 912.2.3 Hydrant distance. An approved fire hydrant shall be located within 100 feet of the fire department connection as the fire hose lays along an unobstructed path.

(69) **Section 913.2.1;** add second paragraph and exception to read as follows:

[F] 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.

(70) **Section 1006.2.2.6** Added a new Section 1006.2.2.6 as follows:

1006.2.2.6 Electrical Rooms. For electrical rooms, special exiting requirements may apply. Reference the electrical code as adopted.

(71) **Section 1009.1;** add the following Exception 4:

Exceptions:

{previous exceptions unchanged}

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

(72) **Section 1010.1.9.4 Bolt Locks;** amended exceptions 3 and 4 as follows:

Exceptions:

3. Where a pair of doors serves an occupant load of less than 50 persons in a Group B, F, M or S occupancy.

{Remainder unchanged}

4. Where a pair of doors serves a Group A, B, F, M or S occupancy.

{Remainder unchanged}

(73) **Section 1015.8 Window Openings.** Amend text as follows:

1. Operable windows where the top of the sill of the opening is located more than 55 feet (16 764 mm) above the finished grade or other surface below and that are provided with window fall prevention devices that comply with ASTM F 2006.

(74) **Section 1029.1.1.1 Delete this section. Spaces under grandstands and bleachers;**

(75) **Section 1030.1; amend to read as follows:**

1030.1 General. In addition to the means of egress required by this chapter, provisions shall be made for emergency escape and rescue openings in Group R and I-1 occupancies. {Remainder unchanged. }

Exceptions:

{Exceptions 1 through 3 unchanged. }

4. In other than Group R-3 occupancies, buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1 or 903.3.1.2.

(76) **Section 1101.1 Scope.** add exception as follows:

Exception: Components of projects regulated by and registered with Architectural Barriers Division of Texas Department of Licensing and Regulation shall be deemed to be in compliance with the requirements of this chapter.

(77) **Section 1203.1;** amend to read as follows:

1203.1 General. Buildings shall be provided with natural ventilation in accordance with Section 1203.4, or mechanical ventilation in accordance with the International Mechanical Code. Where air infiltration rate in a dwelling unit is 5 air changes or less per hour when tested with a blower door at a pressure 0.2 inch w.c. (50 Pa) in accordance with Section 402.4.1.2 of the International Energy Conservation Code, the dwelling unit shall be ventilated by mechanical means in accordance with Section 403 of the International Mechanical Code.

(78) **Table 1505.1;** delete footnote c and replace footnote b with the following:

b. Non-classified roof coverings shall be permitted on buildings of U occupancies having not more than 120 sq. ft. of protected roof area. When exceeding 120 sq. ft. of protected roof area, buildings of U occupancies may use non-rated non-combustible roof coverings.

(79) **Section 1505.7;** delete the section.

- (80) **Section 1510.1**; add a sentence to read as follows:

1510.1 General. Materials and methods of applications used for recovering or replacing an existing roof covering shall comply with the requirements of Chapter 15. All individual replacement shingles or shakes shall be in compliance with the rating required by Table 1505.1.

{text of exception unchanged}

- (81) Add to the end of paragraph 1612.1, "Also refer to the City of Gainesville Flood Control Ordinance."

- (82) **Section 1704.2**, Special inspections and tests is amended to read as follows:

1704.2 Special inspections and tests. Where application is made to the Building Official for construction as specified in Section 105, the owner or the owner's authorized agent, or the registered design professional in responsible charge, other than the contractor, shall employ one or more approved agencies to provide special inspections and tests during construction on the types of work listed under Section 1705 and identify the approved agencies to the Building Official. The special inspector shall not be employed by the contractor. These special inspections and tests are in addition to the inspections identified by the Building Official that are identified in Section 110.

- (83) **Section 1704.2.1**, Special inspector qualifications, is amended to read as follows:

1704.2.1 Special inspector qualifications. Prior to the start of construction and or upon request, the approved agencies shall provide written documentation to the registered design professional in responsible charge and the building official demonstrating the competence and relevant experience or training of the special inspectors who will perform the special inspections and tests during construction. [Remainder unchanged]

- (84) **Section 1704.2.4**, Report requirement, is amended to read as follows:

1704.2.4 Report requirement. Approved agencies shall keep records of special inspections and tests. The approved agency shall submit reports of special inspections and tests to the Building Official upon request, and to the registered design professional in responsible charge. Individual inspection reports shall indicate that work inspected or tested was or was not completed in conformance to approved construction documents.

- (85) **Section 1704.2.5.2**, Fabricator approval, is amended to read as follows:

1704.2.5.1 Fabricator approval. Special inspections during fabrications required by Section 1704 are not required where the work is done on the premises of a fabricator registered and approved to perform such work without special inspection. Approval shall be based upon review of the fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by an approved agency, or a fabricator that is enrolled in a nationally accepted inspections program. At completion of fabrication, the acceptable or approved fabricator shall submit a certificate of compliance to the owner or the owner's authorized agent or the registered design professional in responsible charge, stating that the work was performed in accordance with the approved construction documents. The certificate of compliance shall also be made available to the Building Official upon request.

(86) **Section 2901.1;** add a sentence to read as follows:

[P] 2901.1 Scope. {existing text to remain} The provisions of this Chapter are meant to work in coordination with the provisions of Chapter 4 of the International Plumbing Code. Should any conflicts arise between the two chapters, the Building Official shall determine which provision applies.

(87) **Section 2902.1;** add a second paragraph to read as follows:

In other than E Occupancies, the minimum number of fixtures in Table 2902.1 may be lowered, if requested in writing, by the applicant stating reasons for a reduced number and approved by the Building Official.

(88) **Table 2902.1;** add footnote f to read as follows:

f. Drinking fountains are not required in M Occupancies with an occupant load of 100 or less, B Occupancies with an occupant load of 25 or less, and for dining and/or drinking establishments.

(89) **Section 2902.1.3;** add new Section 2902.1.3 to read as follows:

2902.1.3 Additional fixtures for food preparation facilities. In addition to the fixtures required in this Chapter, all food service facilities shall be provided with additional fixtures set out in this section.

2902.1.3.1 Hand washing lavatory. At least one hand washing lavatory shall be provided for use by employees that is accessible from food preparation, food dispensing and ware washing areas. Additional hand washing lavatories may be required based on convenience of use by employees.

2902.1.3.2 Service sink. In new or remodeled food service establishments, at least one service sink or one floor sink shall be provided so that it is conveniently located for the cleaning of mops or similar wet floor cleaning tool and for the disposal of mop water and similar liquid waste. The location of the service sink(s) and/or mop sink(s) shall be approved by the State of Texas health department.

- (90) **Section 3002.1 Hoistway Enclosure Protection;** add exceptions to read as follows:

Exceptions:

1. Elevators wholly located within atriums complying with Section 404 shall not require hoistway enclosure protection.
2. Elevators in open or enclosed parking garages that serve only the parking garage, and complying with Sections 406.5 and 406.6, respectively, shall not require hoistway enclosure protection.

- (91) **Section 3005.4 Machine rooms, control rooms, machinery spaces and control spaces.**

Revise text to read:

Elevator machine rooms, control rooms, control spaces and machinery spaces shall be enclosed with fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both.

[Remainder unchanged]

- (92) **Section 3005.7;** add Section 3005.7 as follows:

3005.7 Fire Protection in Machine rooms, control rooms, machinery spaces and control spaces.

3005.7.1 Automatic sprinkler system. The building shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, except as otherwise permitted by Section 903.3.1.1.1 and as prohibited by Section 3005.7.2.1.

3005.7.2.1 Prohibited locations. Automatic sprinklers shall not be installed in machine rooms, elevator machinery spaces, control rooms, control spaces and elevator hoist-ways.

3005.7.2.2 Sprinkler system monitoring. The sprinkler system shall have a sprinkler control valve supervisory switch and water-flow initiating device provided for each floor that is monitored by the building's fire alarm system.

3005.7.3 Water protection. An approved method to prevent water from infiltrating into the hoistway enclosure from the operation of the automatic sprinkler system outside the elevator lobby shall be provided.

3005.7.4 **Shunt trip.** Means for elevator shutdown in accordance with Section 3005.5 shall not be installed.

- (93) **Section 3005.8;** add Section 3005.8 as follows:

3005.8 Storage. Storage shall not be allowed within the elevator machine room, control room, machinery spaces and or control spaces. Provide approved signage at each entry to the above listed locations stating: "No Storage Allowed."

- (94) **Section 3006.2, Hoistway opening protection required;** Revise text as follows:

5. The building is a high rise and the elevator hoistway is more than 55 feet (16 764 mm) in height. The height of the hoistway shall be measured from the lowest floor at or above grade to the highest floors served by the hoistway.

- (95) **Section 3109.1;** change to read as follows:

3109.1 General. Swimming pools shall comply with the requirements of sections 3109.2 through 3109.5 and other applicable sections of this code and complying with applicable state laws.

- (96) **3401.5 Alternative Compliance;** change to read as follows:

3401.6~~5~~ Alternative Compliance. Work performed in accordance with the *International Existing Building Code* shall be deemed to comply with the provisions of this chapter with prior approval from the *Building Official*.

- (97) **Section 3401.5 Dangerous Conditions;** change to read as follows:

Section 3401.6 Dangerous Conditions; {Remainder unchanged.}

- (98) Delete paragraph **3410.1 Moved Structures;** add new **3410.1 Conformance;** to read as follows:

Structures being moved into or within the City Limits of Gainesville shall comply with the standards adopted in City Code of Ordinances Article I, Section 5-11 - Moving Structures.

- (99) **3412.2 Applicability,** change to read, Structures existing prior to the effective date of this Ordinance in which there is work.....[{Remainder unchanged. }]

- (100) Delete paragraph **C102.1 General;** add new **C102.1 General;** to read as follows:

Buildings classified as Group U Agriculture shall respect established height limits and setbacks as established in the most currently adopted zoning regulations per City of Gainesville Code of Ordinances.

Sec. 5-4. - Specific amendments to the 2015 International Residential Code

[Specific amendments:]

- (1) **Section R102.4;** change to read as follows:

R102.4 Referenced codes and standards. The codes, when specifically adopted, and standards referenced in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections R102.4.1 and R102.4.2. 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 made to NFPA 70 or the Electrical Code shall mean the Electrical Code as adopted.

- (2) **Section R104.10.1 Flood Hazard areas;** delete this section.
- (3) **Section R105.3.1.1& R106.1.4;** delete these sections re: floodplain.
- (4) **Section R110 (R110.1 through R110.5);** delete these sections re: residential COs.
- (5) **Section R112.2.1 & R112.2.2;** delete these sections re: floodplain.
- (6) **Table R301.2 (1);** fill in as follows:

GROUND SNOW LOAD	WIND DESIGN				SEISMIC DESIGN CATEGORY ^f	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP ^e	ICE BARRIER UNDER-LAYMENT ^h	FLOOD HAZARDS ^g	AIR FREEZING INDEX ⁱ	MEAN ANNUAL TEMP ^j
	SPEED ^d (MPH)	Topographic Effects ^k	Special Wind Region ^l	Windborne Debris Zone ^m		Weathering ^a	Frost Line Depth ^b	Termite ^c					
5 lb/ft	115 (3 sec-gust)/ 76 fastest mile	No	No	No	A	Moderate	6"	Very Heavy	22 ^o F	No	Local Code	150	64.9 ^o F

- (7) **Section R302.1;** add exception #6 to read as follows:

Exceptions:

{previous exceptions unchanged}

6. Open non-combustible carport structures may be constructed when also approved within adopted ordinances.

- (8) **Section R302.2, Exception;** change to read as follows:

Exception: A common two-hour fire-resistance-rated wall assembly, or one-hour fire-resistance-rated wall assembly when equipped with a sprinkler system... {Remainder unchanged.}

- (9) **Section R302.2.4 Exception 5;** change to read as follows:

Exceptions:

{previous exceptions unchanged}

5. Townhouses separated by a common fire-resistance-rated wall as provided in Section R302.2.

- (10) **Section R302.3;** add Exception #3 to read as follows:

Exceptions:

1. {existing text unchanged}
2. {existing text unchanged}
3. Two-family dwelling units that are also divided by a property line through the structure shall be separated as required for townhouses.

- (11) **Section R302.5.1;** change to read as follows:

R302.5.1 Opening protection. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 13/8 inches (35 mm) in thickness, solid or honeycomb core steel doors not less than 13/8 inches (35 mm) thick, or 20-minute fire-rated doors.

- (12) **Section R303.3, Exception;** amend to read as follows:

Exception: {existing text unchanged} Exhaust air from the space shall be exhaust out to the outdoors unless the space contains only a water closet, a lavatory, or water closet and a lavatory may be ventilated with an approved

mechanical recirculating fan or similar device designed to remove odors from the air.

- (13) **R303.4 Mechanical Ventilation;** change to read as follows:

Where the air infiltration rate of a dwelling unit is 5 air changes per hour when tested with a blower door at a pressure of 0.2 inch w.c. (50 Pa) in accordance with Section N1102.4.1.2, the dwelling unit shall be provided with whole-house mechanical ventilation in accordance with Section M1507.3.

- (14) **Section R315.2.2 Alterations, repairs and additions;** Amend to read as follows:

Exception:

2. Installation, alteration or repairs of electrical powered {remaining text unchanged}

- (15) **Section R315.3;** amend and add exceptions as follows:

Where required in existing dwellings. Where work requiring a permit for an addition or an alteration that occurs in existing dwellings, that have attached garages or in existing dwellings within which fuel-fired appliances exist, carbon monoxide alarms shall be provided in accordance with Section R315.1:

Exceptions:

1. Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck, are exempt from the requirements of this section.

2. Installation, alteration or repairs of plumbing or mechanical systems are exempt from the requirements of this section.

- (16) **Section R322 Flood Resistant Construction.** Delete Section.

- (17) **Section R326 Swimming Pools, Spas and Hot Tubs.** Amended to read as follows:

R326.1 General. The design and construction of pools and spas shall comply with the 2015 IRC Appendix Q. Swimming Pools, Spas and Hot Tubs.

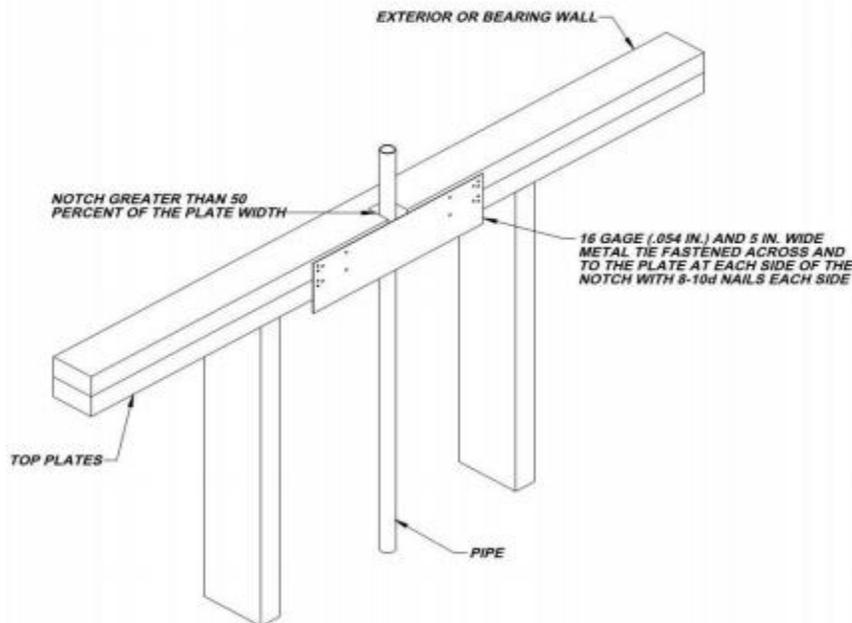
- (18) **Section R401.2,** amend by adding a new paragraph following the existing paragraph to read as follows:

Section R401.2. Requirements. {existing text unchanged} ...Every foundation and/or footing, or any size addition to an existing post-tension foundation, regulated by this code shall be designed and sealed by a Texas-registered engineer.

- (19) Section R602.6.1; amend the following:

R602.6.1 Drilling and notching of top plate. When piping or ductwork is placed in or partly in an exterior wall or interior load-bearing wall, necessitating cutting, drilling or notching of the top plate by more than 50 percent of its width, a galvanized metal tie not less than 0.054-inch thick (1.37 mm) (16 Ga) and 5 inches (127 mm) wide shall be fastened across and to the plate at each side of the opening with not less than eight 10d (0.148-inch diameter) having a minimum length of 1 ½ inches (38 mm) at each side or equivalent. Fasteners will be offset to prevent splitting of the top plate material. The metal tie must extend a minimum of 6 inches past the opening. See figure R602.6.1. {Remainder unchanged.}

- (20) **Figure R602.6.1;** delete the figure and insert the following figure:



- (21) **Section R703.8.4.1;** add a second paragraph to read as follows:

In stud framed exterior walls, all ties shall be anchored to studs as follows:

1. When studs are 16 in (407 mm) o.c., stud ties shall be spaced no further apart than 24 in (737 mm) vertically starting approximately 12 in (381 mm) from the foundation; or

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2. When studs are 24 in (610 mm) o.c., stud ties shall be spaced no further apart than 16 in (483 mm) vertically starting approximately 8 in (254 mm) from the foundation.

- (22) **Chapter 11 [RE] – Energy Efficiency;** delete in its entirety and replace with the following:

N1101.1 Scope. This chapter regulates the energy efficiency for the design and construction of buildings regulated by this code.

N1101.2 Compliance. Compliance shall be demonstrated by meeting the requirements of the residential provisions of the 2015 International Energy Conservation Code.

- (23) **Section M1305.1.3;** change to read as follows:

M1305.1.3 Appliances in attics. Attics containing appliances shall be provided . . . {bulk of paragraph unchanged} . . . sides of the appliance where access is required. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), or larger and large enough to allow removal of the largest appliance. A walkway to an appliance shall be rated as a floor as approved by the building official. As a minimum, for access to the attic space, provide one of the following:

1. A permanent stair.
2. A pull down stair with a minimum 300 lb (136 kg) capacity.
3. An access door from an upper floor level.

Exceptions:

1. The passageway and level service space are not required where the appliance can be serviced and removed through the required opening.
2. Where the passageway is unobstructed... {remaining text unchanged}

- (24) **Section M1411.3;** change to read as follows:

M1411.3 Condensate disposal. Condensate from all cooling coils or evaporators shall be conveyed from the drain pan outlet to an approved place of disposal a sanitary sewer through a trap, by means of a direct or indirect drain unless otherwise approved by the Building Official. {remaining text unchanged}

- (25) **Section M1411.3.1;** add text (Items 3 and 4) to read as follows:

M1411.3.1 Auxiliary and secondary drain systems. {bulk of paragraph unchanged}

1. {text unchanged}
2. {text unchanged}
3. An auxiliary drain pan... {bulk of text unchanged}... with Item 1 of this section. A water level detection device may be installed only with prior approval of the Building Official.
4. A water level detection device... {bulk of text unchanged}... overflow rim of such pan. A water level detection device may be installed only with prior approval of the Building Official.

(26) **Section M1411.3.1.1;** add text to read as follows:

M1411.3.1.1 Water-level monitoring devices. On down-flow units ... {bulk of text unchanged} ... installed in the drain line. A water level detection device may be installed only with prior approval of the building official.

(27) **M1503.4 Makeup Air Required;** amend and add exception as follows:

M1503.4 Makeup air required. Exhaust hood systems capable of exhausting in excess of 400 cubic feet per minute (0.19 m³/s) shall be provided with makeup air at a rate approximately equal to the difference between the exhaust air rate and 400 cubic feet per minute. Such makeup air systems shall be equipped with a means of closure and shall be automatically controlled to start and operate simultaneously with the exhaust system.

Exception: Where all appliances in the house are of sealed combustion, power-vent, unvented, or electric, the exhaust hood system shall be permitted to exhaust up to 600 cubic feet per minute (0.28 m³/s) without providing makeup air. Exhaust hood systems capable of exhausting in excess of 600 cubic feet per minute (0.28 m³/s) shall be provided with a makeup air at a rate approximately equal to the difference between the exhaust air rate and 600 cubic feet per minute.

(28) **Section M2005.2;** change to read as follows:

M2005.2 Prohibited locations. Fuel-fired water heaters shall not be installed in a room used as a storage closet. Water heaters located in a bedroom or bathroom shall be installed in a sealed enclosure so that combustion air will not be taken from the

living space. Access to such enclosure may be from the bedroom or bathroom when through a solid door, weather-stripped in accordance with the exterior door air leakage requirements of the International Energy Conservation Code and equipped with an approved self-closing device. Installation of direct-vent water heaters within an enclosure is not required.

(29) **Section G2408.3 (305.5)**; delete (only applies in the north).

(30) **Section G2415.2.1 (404.2.1)**; add a second paragraph to read as follows:

Both ends of each section of medium pressure gas piping shall identify its operating gas pressure with an approved tag. The tags are to be composed of aluminum or stainless steel and the following wording shall be stamped into the tag: "WARNING: 1/2 to 5 psi gas pressure - Do Not Remove."

(31) **Section G2415.2.2 (404.2.2)**; add an exception to read as follows:

Exception: Corrugated stainless steel tubing (CSST) shall be a minimum of 1/2" (18 EDH).

(32) **Section G2415.12 (404.12)**; amend to read as follows:

G2415.12 (404.12) Minimum burial depth. Underground piping systems shall be installed a minimum depth of 18 inches (457 mm) below grade,

(33) **Section G2415.12.1 (404.12.1)**; change to read as follows:

G2415.12.1 Individual outside appliances. Individual lines to outside lights, grills or other appliances shall be installed a minimum of 8 12 inches (~~203 mm~~)(305 mm) below finished grade.... {Rest unchanged.}

(34) **Section G2417.1 (406.1)**; change to read as follows:

G2417.1 (406.1) General. Prior to acceptance and initial operation, all piping installations shall be inspected and pressure tested to determine that the materials, design, fabrication, and installation practices comply with the requirements of this code. The permit holder shall make the applicable tests prescribed in Sections 2417.1.1 through 2417.1.5 to determine compliance with the provisions of this code. The permit holder shall give reasonable advance notice to the building official when the piping system is ready for testing. The equipment, material, power and labor necessary for the inspections and test shall be furnished by the permit holder and the permit holder shall be responsible for determining that the work will withstand the test pressure prescribed in the following tests.

- (35) **Section G2417.4;** change to read as follows:

G2417.4 (406.4) Test pressure measurement. Test pressure shall be measured with a monometer or with a pressure-measuring device designed and calibrated to read, record, or indicate a pressure loss caused by leakage during the pressure test period. The source of pressure shall be isolated before the pressure tests are made.

- (36) **Section G2417.4.1;** change to read as follows:

G2417.4.1 (406.4.1) Test pressure. The test pressure to be used shall be no less than 3 psig (20 kPa gauge), or at the discretion of the Code Official, the piping and valves may be tested at a pressure of at least six (6) inches (152 mm) of mercury, measured with a manometer or slope gauge. For tests requiring a pressure of 3 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one half inches (3 ½”), a set hand, 1/10 pound incrementation and pressure range not to exceed 6 psi for tests requiring a pressure of 3 psig. For tests requiring a pressure of 10 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one-half inches (3 ½”), a set hand, a minimum of 2/10 pound incrementation and a pressure range not to exceed 20 psi. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa) (1/2 psi) and less than 200 inches of water column pressure (52.2 kPa) (7.5 psi), the test pressure shall not be less than ten (10) pounds per square inch (69.6 kPa). For piping carrying gas at a pressure that exceeds 200 inches of water column (52.2 kPa) (7.5 psi), the test pressure shall be not less than one and one-half times the proposed maximum working pressure.

Diaphragm gauges used for testing must display a current calibration and be in good working condition. The appropriate test must be applied to the diaphragm gauge used for testing.

- (37) **Section G2417.4.2;** amend to read as follows:

G2417.4.2 (406.4.2) Test duration. The test duration shall be held for a length of time satisfactory to the Building Official, but in no case for less than ~~10~~ fifteen (15) minutes. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa), the test duration shall be held for a length of time satisfactory to the Building Official, but in no case for less than thirty (30) minutes.

- (38) **Section G2420.1 (406.1);** add Section G2420.1.4 to read as follows:

G2420.1.4 Valves in CSST installations. Shutoff valves installed with corrugated stainless steel (CSST) piping systems shall be supported with an approved

termination fitting, or equivalent support, suitable for the size of the valves, of adequate strength and quality, and located at intervals so as to prevent or damp out excessive vibration but in no case greater than 12-inches from the center of the valve. Supports shall be installed so as not to interfere with the free expansion and contraction of the system's piping, fittings, and valves between anchors. All valves and supports shall be designed and installed so they will not be disengaged by movement of the supporting piping.

- (39) **Section G2420.5.1 (409.5.1)**; add text to read as follows:

G2420.5.1 (409.5.1) Located within the same room. The shutoff valve ... {bulk of paragraph unchanged} ... in accordance with the appliance manufacturer's instructions. A secondary shutoff valve must be installed within 3 feet (914 mm) of the firebox if appliance shutoff is located in the firebox.

- (40) **Section G2421.1 (410.1)**; add text and Exception to read as follows:

G2421.1 (410.1) Pressure regulators. A line pressure regulator shall be ... {bulk of paragraph unchanged} ... approved for outdoor installation. Access to regulators shall comply with the requirements for access to appliances as specified in Section M1305.

Exception: A passageway or level service space is not required when the regulator is capable of being serviced and removed through the required attic opening.

- (41) **Section G2422.1.2.3 (411.1.3.3)**; delete Exception 1 and Exception 4 (to comply with accepted regional practices)

- (42) **Section G2445.2 (621.2)**; add Exception to read as follows:

G2445.2 (621.2) Prohibited use. One or more unvented room heaters shall not be used as the sole source of comfort heating in a dwelling unit.

Exception: Existing approved unvented room heaters may continue to be used in dwelling units, in accordance with the code provisions in effect when installed, when approved by the Building Official unless an unsafe condition is determined to exist as described in International Fuel Gas Code Section 108.7 of the Fuel Gas Code.

- (43) **Section G2448.1.1 (624.1.1)**; change to read as follows:

G2448.1.1 (624.1.1) Installation requirements. The requirements for water heaters relative to access, sizing, relief valves, drain pans and scald protection shall be in accordance with this code.

- (44) **Section P2801.6.1;** change to read as follows:

Section P2801.6.1 Pan size and drain. The pan shall be not less than 1 1/2 inches (38 mm) in depth and shall be of sufficient size and shape to receive all dripping or condensate from the tank or water heater. The pan shall be drained by an indirect waste pipe having a diameter of not less than 3/4 inch (19 mm). Piping for safety pan drains shall be of those materials listed in Table 605.4. Multiple pan drains may terminate to a single discharge piping system when approved by the administrative authority and permitted by the manufactures installation instructions and installed with those instructions.

- (45) **Section P2804.6.1;** change to read as follows:

Section P2804.6.1 Requirements for discharge piping. The discharge piping serving a pressure relief valve, temperature relief valve or combination thereof shall:

1. Not be directly connected to the drainage system.
2. Discharge through an air gap.
3. Not be smaller than the diameter of the outlet of the valve served and shall discharge full size to the air gap.
4. Serve a single relief device and shall not connect to piping serving any other relief device or equipment.

Exception: Multiple relief devices may be installed to a single T & P discharge piping system when approved by the administrative authority and permitted by the manufacturer's installation instructions and installed with those instructions.

5. Discharge to an indirect waste receptor or to the outdoors.

[Remainder unchanged.]

- (46) **Section P2801.7;** add Exception to read as follows:

Exceptions:

1. Electric Water Heater.

- (47) **Section P2902.5.3;** change to read as follows:

P2902.5.3 Lawn irrigation systems. The potable water supply to lawn irrigation systems shall be protected against backflow by an atmospheric-type vacuum breaker, a pressure-type vacuum breaker, a double-check assembly or a reduced pressure principle backflow preventer. A valve shall not be installed downstream from an atmospheric vacuum breaker. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.

- (48) **Section P3005.2.6;** change to read as follows:

P3005.2.6 Upper Terminal. Each horizontal drain shall be provided with a cleanout at its upper terminal.

Exception: Cleanouts may be omitted on a horizontal drain less than five (5) feet (1524 mm) in length unless such line is serving sinks or urinals.

- (49) **Section P3111; delete.** [To match other IBC Codes.]

- (50) **Section P3112.2;** delete and replace with the following:

P3112.2 Installation. Traps for island sinks and similar equipment shall be roughed in above the floor and may be vented by extending the vent as high as possible, but not less than the drainboard height and then returning it downward and connecting it to the horizontal sink drain immediately downstream from the vertical fixture drain. The return vent shall be connected to the horizontal drain through a wye-branch fitting and shall, in addition, be provided with a foot vent taken off the vertical fixture vent by means of a wye-branch immediately below the floor and extending to the nearest partition and then through the roof to the open air or may be connected to other vents at a point not less than six (6) inches (152 mm) above the flood level rim of the fixtures served. Drainage fittings shall be used on all parts of the vent below the floor level and a minimum slope of one-quarter (1/4) inch per foot (20.9 mm/m) back to the drain shall be maintained. The return bend used under the drain-board shall be a one (1) piece fitting or an assembly of a forty-five (45) degree (0.79 radius), a ninety (90) degree (1.6 radius) and a forty-five (45) degree (0.79 radius) elbow in the order named. Pipe sizing shall be as elsewhere required in this Code. The island sink drain, upstream of the return vent, shall serve no other fixtures. An accessible cleanout shall be installed in the vertical portion of the foot vent.

- (51) Add paragraph 3304 Stormwater drainage and runoff shall not be drained onto adjacent neighboring properties.

- (52) All new subdivisions shall have underground electric services.

- (53) **Appendix Q Reserved;** Amended to read as follows:

Appendix Q. Swimming Pools, Spas and Hot Tubs.

SECTION AQ101 GENERAL AQ101.1 General. The provisions of this appendix shall control the design and construction of swimming pools, spas and hot tubs installed in or on the lot of a one- or two-family dwelling.

SECTION AQ102 DEFINITIONS

AQ102.1 General.

For the purposes of these requirements, the terms used shall be defined as follows and as set forth in Chapter 2.

ABOVE-GROUND/ON-GROUND POOL. See "Swimming pool."

BARRIER. A fence, wall, building wall or combination thereof which completely surrounds the swimming pool and obstructs access to the swimming pool.

HOT TUB. See "Swimming pool."

IN-GROUND POOL. See "Swimming pool."

RESIDENTIAL. That which is situated on the premises of a detached one- or two-family dwelling, or a one-family townhouse not more than three stories in height.

SPA, NONPORTABLE. See "Swimming pool."

SPA, PORTABLE. A nonpermanent structure intended for recreational bathing, in which all controls, water-heating and water-circulating equipment are an integral part of the product.

SWIMMING POOL. Any structure intended for swimming or recreational bathing that contains water more than 24 inches (610 mm) deep. This includes in-ground, above-ground and on-ground swimming pools, hot tubs and spas.

SWIMMING POOL, INDOOR. A swimming pool which is totally contained within a structure and surrounded on all four sides by the walls of the enclosing structure.

SWIMMING POOL, OUTDOOR. Any swimming pool which is not an indoor pool.

SECTION AG103 SWIMMING POOLS

AQ103.1 In-ground pools.

In-ground pools shall be designed and constructed in compliance with ANSI/NSPI-5.

AQ103.2 Above-ground and on-ground pools.

Above-ground and on-ground pools shall be designed and constructed in compliance with ANSI/NSPI-4.

AQ103.3 Pools in flood hazard areas. In flood hazard areas established by Table R301.2(1), pools in coastal high-hazard areas shall be designed and constructed in compliance with ASCE 24.

SECTION AQ104 SPAS AND HOT TUBS

AQ104.1 Permanently installed spas and hot tubs.

Permanently installed spas and hot tubs shall be designed and constructed in compliance with ANSI/NSPI-3.

AQ104.2 Portable spas and hot tubs.

Portable spas and hot tubs shall be designed and constructed in compliance with ANSI/NSPI-6.

SECTION AQ105 BARRIER REQUIREMENTS

AQ105.1 Application.

The provisions of this appendix shall control the design of barriers for residential swimming pools, spas and hot tubs. These design controls are intended to provide protection against potential drownings and near-drownings by restricting access to swimming pools, spas and hot tubs.

AQ105.2 Outdoor swimming pool.

An outdoor swimming pool, including an in-ground, above-ground or on-ground pool, hot tub or spa shall be surrounded by a barrier which shall comply with the following:

1. The top of the barrier shall be at least 48 inches (1219mm) above grade measured on the side of the barrier, which faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches (51mm) measured on the side of the barrier, which faces away from the swimming pool. Where the top of the pool structure is above grade, such as an above-ground pool, the barrier may be at ground level, such as the pool structure, or mounted on top of the pool structure.

Where the barrier is mounted on top of the pool structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4 inches (102mm).

2. Openings in the barrier shall not allow passage of a 4-inch-diameter (102mm) sphere.

3. Solid barriers which do not have openings, such as a masonry or stone wall, shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.

4. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1.75 inches (44mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.

5. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.

6. Maximum mesh size for chain link fences shall be a 2.25-inch (57 mm) square unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to not more than 1.75 inches (44 mm).

7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall not be more than 1.75 inches (44 mm).

8. Access gates shall comply with the requirements of Section AQ105.2, Items 1 through 7, and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the gate, the release mechanism and openings shall comply with the following:

8.1. The release mechanism shall be located on the pool side of the gate at least 3 inches (76 mm) below the top of the gate, and

8.2. The gate and barrier shall have not opening greater than 0.5 inch (13 mm) within 18 inches (457 mm) of the release mechanism.

9. Where a wall of a dwelling serves a part of the barrier one of the following conditions shall be met:

9.1. The pool shall be equipped with a powered safety cover in compliance with ASTM F1346; or

9.2. Doors with direct access to the pool through that wall shall be equipped with an alarm which produces an audible warning when the door and/or its screen, if present, are opened. The alarm shall be listed and labeled in accordance with UL 2017. The deactivation switch (es) shall be located at least 54 inches (1372 mm) above the threshold of the door; or

9.3. Other means of protection, such as self-closing doors with self-latching devices, which are approved by the governing body, shall be acceptable as long as the degree of protection afforded is not less than the protection afforded by Item 9.1 or 9.2 described above.

10. Where an above-ground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure, and the means of access is a ladder or steps, then:

10.1. The ladder or steps shall be capable of being secured, locked or removed to prevent access, or

10.2. The ladder or steps shall be surrounded by a barrier which meets the requirements of Section AQ105.2, Items 1 through 9. When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch diameter (102 mm) sphere.

AQ105.3 Indoor swimming pool.

Walls surrounding an indoor swimming pool shall comply with Section AQ105.2, Item 9.

AQ105.4 Prohibited locations.

Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb them.

AQ105.5 Barrier exceptions. Spas or hot tubs with a safety cover which complies with ASTM F 1346, as listed in Section AQ107, shall be exempt from the provisions of this appendix.

SECTION AQ106 ENTRAPMENT PROTECTION FOR SWIMMING POOL AND SPA SUCTION OUTLETS

AQ106.1 General. Suction outlets shall be designed and installed in accordance with ANSI/APSP-7.

SECTION AQ107 ABBREVIATIONS

AQ107.1 General.

ANSI—American National Standards Institute
11 West 42nd Street
New York, NY 10036

APSP—Association of Pool and Spa Professionals
NSPI—National Spa and Pool Institute
2111 Eisenhower Avenue
Alexandria, VA 22314

ASCE—American Society of Civil Engineers
1801 Alexander Bell Drive
Reston, VA 98411-0700

ASTM—ASTM International
100 Barr Harbor Drive West
Conshohocken, PA 19428

UL—Underwriters Laboratories, Inc.
333 Pfingsten Road
Northbrook, IL 60062-2096

SECTION AQ108 REFERENCED STANDARDS

AQ108.1 General.

ANSI/NSP

ANSI/NSPI- 3—99 Standard for Permanently Installed Residential Spas -
AQ104.1

ANSI/NSPI- 4—99 Standard for Above-ground/ On-ground Residential Swimming
Pools - AQ103.2

ANSI/NSPI- 5—03 Standard for Residential In-ground Swimming Pools - AQ103.1

ANSI/NSPI- 6—99 Standard for Residential Portable Spas AQ104.2

ANSI/APSP

ANSI/APSP- 7—06 Standard for Suction Entrapment Avoidance in Swimming Pools, Wading Pools, Spas, Hot Tubs and Catch Basins - AQ106.1

ASCE ASCE/SEI-24— 05 Flood-resistant Design and Construction - AQ103.3

ASTM

ASTM F 1346—91 (2003) Performance Specification for Safety Covers and Labeling Requirements for All Covers for Swimming Pools Spas and Hot Tubs - AQ105.2, AQ105.5

UL

UL 2017— 2000 Standard for General-purpose Signaling Devices and Systems— with revisions through June 2004 - AQ105.2

- (54) All new swimming pools shall be constructed in accordance with the Virginia Graeme Baker Pool and Spa Act of 2007 or most recent State of Texas law.

Sec. 5-5. - Specific amendments to 2015 International Fire Code.

[Specific amendments:]

- (1) **102.1 Existing Structures - Construction and Design Provisions:**

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

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

Add:

(5) Additions, Alterations, Renovations;

(a) Any addition, renovation, remodel that adds square footage to a building, such structure is now subject to all fire protection requirements as though it were new construction.

(b) Any alteration or renovation that changes the occupancy floorplan or increases the occupancy load of the structure is now subject to all fire protection requirements as though it were new construction.

(c) Any renovation or remodel that does not change the occupancy floorplan, occupancy classification, or increase the occupancy load of the structure shall be considered pre-existing compliant from having to meet fire current fire protection requirements for new construction.

(2) **105.1.1 Permits Required:** Replace - "Fire Code Official" with "Community Services Department upon approval of the Fire Code Official".

(3) **Section 105.3.3;** change to read as follows:

105.3.3 Occupancy Prohibited before Approval. The building or structure shall not be occupied prior to the fire code official issuing a permit when required and conducting associated inspections indicating the applicable provisions of this code have been met.

(4) **105.4.1.1a Examination of Documents:** Add - The Fire Code Official is authorized to require a third party review on submittals and documents. The third party reviewer shall be pre-approved by the Fire Code Official. All fees for the third party review shall be the responsibility of the submitter.

(5) **105.4.6a Retention of Construction Documents;** add the following sentence:

Prior to issuance of a Certificate of Occupancy one set of "as built" drawings shall be provided to the Fire Code Official on electronic compact disc in an approved format.

(6) **Section 105.7;** add Section 105.7.19 to read as follows:

105.7.19 Electronic access control systems. Construction permits are required for the installation or modification of an electronic access control system, as specified in Chapter 10. A separate construction permit is required for the installation or modification of a fire alarm system that may be

connected to the access control system. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

(7) **202 General Definitions; Add**

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

- Dialysis centers
- Procedures involving sedation
- Sedation dentistry
- Surgery centers
- Colonic centers
- Psychiatric centers
- {Remainder unchanged.}

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

BED AND BREAKFAST. A private residence having a limited number of sleeping rooms which are available for transient guests who have paid for accommodations.

[B] DEFEND IN PLACE. A method of emergency response that engages building components and trained staff to provide occupant safety during an emergency. Emergency response involves remaining in place, relocating within the building, or both, without evacuating the building.

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.

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. ... {Remainder unchanged.}

HIGH-PILED COMBUSTIBLE STORAGE: add a second paragraph 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.

HIGH RISE BUILDING. A building having any floors used for human occupancy located more than 55 feet above the lowest level of fire department vehicle access.

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

[BG] RESIDENTIAL GROUP R; amend as follows:

[BG] Residential Group R-1. Residential Group R-1 occupancies containing sleeping units where the occupants are primarily transient in nature, including:

Bed and Breakfasts

Boarding Houses (transient)

Hotels (transient)

Motels (transient)

Congregate living facilities (transient) with 10 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

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.

UPGRADED OR REPLACED FIRE ALARM SYSTEM. A fire alarm system that is upgraded or replaced includes, but is not limited to the following:

- Replacing one single board or fire alarm control unit component with a newer model
- Installing a new fire alarm control unit in addition to or in place of an existing one
- Conversion from a horn system to an emergency voice/alarm communication system
- Conversion from a conventional system to one that utilizes addressable or analog devices

The following are not considered an upgrade or replacement:

- Firmware updates
- Software updates
- Replacing boards of the same model with chips utilizing the same or newer firmware

(8) **304.3.5 Waste Oil Containers;** Add the following:

Only approved containers designed for the collection and disposal of waste cooking or motor oil may be used. For purposes of this section, 55-gallon drums are not considered approved containers. Existing occupancies using non-approved containers shall have 90 days to comply upon notification of this requirement.

(9) **307.1a** Any outdoor burning shall be conducted in accordance with the "City of Gainesville Open Burning, Recreational Fires and Bonfires Regulations as follows:

CITY OF GAINESVILLE, TEXAS: OPEN BURNING, RECREATIONAL FIRES, AND BONFIRES REGULATIONS

This information is provided for all persons within the City Limits of Gainesville, Texas.

Persons wishing to conduct an outdoor burn should be aware of State and Local Regulations that apply to outdoor burning. State Requirements are addressed in a document entitled "Outdoor Burning in Texas", published by the Texas Commission on Environmental Quality, (formerly the Texas Natural Resources Conservation Commission). This information can be accessed online

at www.tceq.state.tx.us and searching under available publications. Local requirements from the City of Gainesville are covered in the 200915 Edition of the International Fire Code, Section 307, as amended. Any of these regulations may apply to outdoor burns in Gainesville.

The Fire Code requires that all persons who wish to conduct open burning complete a permit application and obtain a burning permit. Before a permit is issued, a Fire Marshal's Office official may inspect the premises to verify information regarding the permit application. In instances where laws or regulations are enforceable by any other governmental entity having jurisdiction, joint approval shall be obtained. Permits shall be kept on the premises designated therein at all times and shall be posted in a conspicuous location on the premises, or shall be kept on the premises in a location designated by the Fire Marshal's office. Permits shall be subject to inspection at all times by an officer of the fire or police department or other persons authorized by the Fire Marshal. Permits may be revoked at any time when it is determined by the Fire Marshal (or designee) that any conditions or limitations set forth in a permit have been violated, which may result in fines or additional fees issued by the fire department or TCEQ.

The authority to conduct outdoor burning under the regulations listed below does not exempt or excuse any person responsible from the consequences, damages, or injuries resulting from the burning and does not exempt or excuse anyone from complying with all other applicable laws or ordinances, regulations, and orders of governmental entities having jurisdiction, even though the burning is otherwise conducted in compliance with the regulations listed below.

Review the following burn regulations and then contact the Community Services Department to request and/or apply for a burn permit. A Fire Inspector will set up an appointment to come out and conduct a site inspection. This inspection must be conducted with the owner or owner's representative. If the inspection passes, the Fire Inspector will approve the issuance of the permit and authorize the Community Services Department to issue the permit. It is recommended to apply for a burn permit two to three days prior to the desired commencement of the burn.

A copy of the permit application and inspection must remain available on site at all times. Burning is allowed with a permit only after an on-site inspection by the Fire Marshal's Office. Permit fee is in accordance with the Fee Schedule adopted by the Gainesville City Council. Permits are issued "per occurrence". Burn permits are valid for 5 days. When the permit expires, applicants may start the permit process again.

Contact police/fire dispatch non-emergency prior to the commencement of burning. Give the Dispatcher your address information, emergency call back telephone number and burn permit number. Also notify Fire Marshal's Office the weekday/business day before the planned burn to verify that the weather conditions are satisfactory to conduct the burn. The

website *www.accuweather.com* will be utilized as a resource in making decisions on burn/no burn conditions and projections. The Fire Marshal's Office will also verify that a burn ban is not in effect. This approval will be recorded by the Fire Marshal's Office and could be considered a violation of the permit regulations if it is not made each day prior to commencement of an open burn.

A phone shall be available to call 9-1-1 if the fire gets out of control.

You must have control of your fire at all times. Out of control wildfires are subject to fees or fines to cover expenses incurred by the fire department during extinguishment.

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

Burning shall be commenced and conducted only when wind direction and other meteorological conditions are such that smoke and other pollutants will not cause adverse effects to any public roadway or off-site structure containing sensitive receptor(s) as listed below:

- Winds more than 6 MPH but less than 15 MPH during the burn period.
- Burning shall not be conducted during periods of actual or predicted persistent low-level atmospheric temperature inversions.

The initiation of burning shall commence no earlier than one hour after sunrise. Burning shall be completed on the same day one hour before sunset (ceremonial and campfire/cooking fires may be later). In cases where residual fires and/or smoldering objects continue to emit smoke after this time, such areas shall be extinguished if the smoke from these areas has the potential to create a nuisance or traffic hazard condition. In no case shall the extent of the burn area be allowed to increase after this time.

The burning of domestic waste is **PROHIBITED**. The State of Texas defines domestic waste as follows: wastes that normally result from the function of life within a residence—for example, kitchen garbage, untreated lumber, cardboard boxes, packaging, clothing, grass, leaves. Such things as tires, construction debris, furniture, carpet, electrical wire, and appliances are not considered to be domestic waste but shall not be burned. Other conditions of the general requirements for outdoor burning do not apply to the burning of domestic waste, but the outdoor burn must not cause a nuisance or traffic hazard. If at any time the burning causes or may tend to cause smoke to blow onto or across a roadway or highway, it is the responsibility of the person initiating the burn to post flag-persons on affected roads.

Open burning shall be constantly attended by a person knowledgeable in the use of fire-extinguishing equipment and familiar with the permit limitations which

restrict open burning until the fire is extinguished. An attendant shall supervise the burning material until the fire has been completely extinguished. A garden hose connected to a water supply or other approved fire-extinguishing equipment shall be readily available for use at open-burning sites.

Burning must be conducted downwind of, or at least 300 feet from any structure containing sensitive receptors located on adjacent properties unless prior written approval is obtained from whomever owns or rents the adjacent property and either resides or conducts business there.

Recreational fires shall not be conducted within 100 feet of a structure, property line or combustible material. Conditions which could cause a fire to spread within 100 feet of a structure shall be eliminated prior to ignition. Recreational fires shall be limited to no larger than 3 feet in diameter and 2 feet in height.

Bonfires or any other open burning shall be conducted utilizing standard open burning rules.

If a complaint is received by Gainesville Fire-Rescue that your Outdoor Burn, Recreational Fire or Bonfire is aggravating the sensitive receptors i.e., eyes, nose, and/or lungs of persons in the area near your burn, you will be asked by the Fire Marshal or his representative to immediately extinguish the fire.

Please contact the Fire Marshal's Office if you have any questions in reference to open burning or burn permits.

Thank you for your compliance with these fire safety requirements.

- (10) **Section 307.1.1;** change to read as follows:

307.1.1 Prohibited Open Burning. Open burning that is offensive or objectionable because of smoke emissions or when atmospheric conditions or local circumstances make such fires hazardous shall be prohibited.

Exception: {No change.}

- (11) **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. Application for such approval shall only be presented by and permits issued to the owner of the land upon which the fire is to be kindled.

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

1. Texas Commission on Environmental Quality (TCEQ) guidelines and/or restrictions.
2. State, County, or Local temporary or permanent bans on open burning.
3. City of Gainesville, Texas: Open Burning, Recreational Fires, and Bonfires Regulations as established by this Code.

(12) **Section 307.3;** change to read as follows:

307.3 Extinguishment Authority. The fire code official is authorized to order the extinguishment by the permit holder, another person responsible or the fire department of open burning that creates or adds to a hazardous or objectionable situation.

(13) **Section 307.4;** change to read as follows:

307.4 Location. The location for open burning 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: {No change.}

(14) **307.4.3 Portable Outdoor Fireplaces:** Add to the end of the sentence "...and shall comply with the requirements of Section 308.3.1."

(15) **Section 307.4.3;** add the following clause to the end of the sentence:

"... and shall comply with the requirements of Section 308.3.1."

Exceptions: add exception #2 to read as follows:

Exceptions:

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

(16) **Section 307.4.4 and 5;** add section 307.4.4 and 307.4.5 to read as follows:

307.4.4 Permanent Outdoor Firepit. Permanently installed outdoor firepits for recreational fire purposes shall not be installed within 15 feet of a structure or combustible material.

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

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

(17) **Section 307.5;** change to read as follows:

307.5 Attendance. Open burning, trench burns, bonfires, recreational fires, and use of portable outdoor fireplaces shall be constantly attended until the...
{Remainder unchanged.}

(18) **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. {No change.}

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

Exceptions:

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

(20) **Section 308.1.6.3;** change to read as follows:

308.1.6.3 Sky Lanterns. A person shall not release or cause to be released an unmanned free-floating devices containing an open flame or other heat source, such as but not limited to a sky lantern.

- (21) **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,

- (22) **Section 403.5;** change Section 403.5 to read as follows:

403.5 Group E Occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group E occupancies and for buildings containing both a Group E occupancy and an atrium. A diagram depicting two evacuation routes shall be posted in a conspicuous location in each classroom. Group E occupancies shall also comply with Sections 403.5.1 through 403.5.3.

- (23) **Section 404.2.2;** add Number 4.10 to read as follows:

4.10 Fire extinguishing system controls.

- (24) **Section 405.4;** change Section 405.4 to read as follows:

405.4 Time. The fire code official may require an evacuation drill at any time. Drills shall be held at unexpected times and under varying conditions to simulate the unusual conditions that occur in case of fire.

- (25) **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.

- (26) **Section 503.1.1;** add sentence to read as follows:

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

- (27) **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 (7315 mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 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.

(28) **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.

(29) **503.2.3 Surface;** add the following sentence to the end of the paragraph:

Refer to the most recently adopted subdivision regulations found within the City of Gainesville Code of Ordinances for the details and specifications for construction.

(30) **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 North Central Texas Council of Governments 8 As of August 2015 IFC Amendments shall be on the vertical face of the curb.

(2) Signs – Signs shall read “NO PARKING FIRE LANE” or “FIRE LANE NO PARKING” and shall be 12” wide and 18” high. Signs shall be painted on a white background with letters and borders in red, using not less than 2” lettering. Signs shall be permanently affixed to a stationary post and the bottom of the sign shall be six feet, six inches (6’6”) above finished grade. Signs shall be spaced not more than fifty

feet (50') apart along both sides of the fire lane. Signs may be installed on permanent buildings or walls or as approved by the Fire Chief.

- (30) **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.

- (31) **Section 505.1;** change to read as follows:

505.1 Address Identification. New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 6 inches (152.4 mm) high with a minimum stroke width of 1/2 inch (12.7 mm). Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road, buildings do not immediately front a street, and/or the building cannot be viewed from the public way, a monument, pole or other sign with approved 6 inch (152.4 mm) height building numerals or addresses and 4 inch (101.6 mm) height suite/apartment numerals of a color contrasting with the background of the building or other approved means shall be used to identify the structure. Numerals or addresses shall be posted on a minimum 20 inch (508 mm) by 30 inch (762 mm) background on border. Address identification shall be maintained.

Exception: R-3 Single Family occupancies shall have approved numerals of a minimum 3 ½ inches (88.9 mm) 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.

- (32) **507.1 Required Water Supply;** add the following sentence:

All installations in Section 507 shall conform to the most recently adopted subdivision regulations found in the City of Gainesville Code of Ordinances.

- (33) **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.

- (34) **Section 509.1.2;** add new Section 509.1.2 to read as follows:

509.1.2 Sign Requirements. Unless more stringent requirements apply, lettering for signs required by this section shall have a minimum height of 2 inches (50.8 mm) when located inside a building and 4 inches (101.6 mm) when located outside, or as approved by the fire code official. The letters shall be of a color that contrasts with the background.

- (35) **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 Chapter 57. {Delete remainder of Exception.}

- (36) **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 ~~or~~ 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.

- (37) **Section 604;** change and add to read as follows:

604.1.1 Stationary Generators. Stationary emergency and standby power generators required by this code shall be listed in accordance with UL 2200.

604.1.2 Installation. Emergency power systems and standby power systems shall be installed in accordance with the International Building Code, NFPA 70, NFPA 110 and NFPA 111. Existing installations shall be maintained in accordance with the original approval, except as specified in Chapter 11.

604.1.3 through 604.1.8 {No changes to these sections.}

604.1.9 Critical Operations Power Systems (COPS). For Critical Operations Power Systems necessary to maintain continuous power supply to facilities or parts of facilities that require continuous North Central Texas Council of Governments 10 As of August 2015 IFC Amendments operation for the reasons of public safety, emergency management, national security, or business continuity, see NFPA 70.

604.2 Where Required. Emergency and standby power systems shall be provided where required by Sections 604.2.1 through 604.2.24 or elsewhere identified in this code or any other referenced code.

604.2.1 through 604.2.3 {No change.}

604.2.4 Emergency Voice/alarm Communications Systems. Emergency power shall be provided for emergency voice/alarm communications systems in the following occupancies, or as specified elsewhere in this code, as required in Section 907.5.2.2.5. The system shall be capable of powering the required load for a duration of not less than 24 hours, as required in NFPA 72.

- Covered and Open Malls, Section 907.2.20 and 914.2.3
- Group A Occupancies, Sections 907.2.1 and 907.5.2.2.4
- Special Amusement Buildings, Section 907.2.12.3
- High-rise Buildings, Section 907.2.13
- Atriums, Section 907.2.14
- Deep Underground Buildings, Section 907.2.19

604.2.5 through 604.2.11 {No change.}

604.2.12 Means of Egress Illumination. Emergency power shall be provided for means of egress illumination in accordance with Sections 1008.3 and 1104.5.1. (90 minutes)

604.2.13 Membrane Structures. Emergency power shall be provided for exit signs in temporary tents and membrane structures in accordance with Section 3103.12.6.1. (90 minutes) Standby power shall be provided for auxiliary inflation systems in permanent membrane structures in accordance with Section 2702 of the International Building Code. (4 hours) Auxiliary inflation systems shall be provided in temporary air-supported and air-inflated membrane structures in accordance with section 3103.10.4.

604.2.14 {No change.}

604.2.15 Smoke Control Systems. Standby power shall be provided for smoke control systems in the following occupancies, or as specified elsewhere in this code, as required in Section 909.11:

- Covered Mall Building, International Building Code, Section 402.7
- Atriums, International Building Code, Section 404.7
- Underground Buildings, International Building Code, Section 405.8
- Group I-3, International Building Code, Section 408.4.2
- Stages, International Building Code, Section 410.3.7.2
- Special Amusement Buildings (as applicable to Group A's),
International Building Code, Section 411.1
- Smoke Protected Seating, Section 1029.6.2.1

604.2.17 Covered and Open Mall Buildings. Emergency power shall be provided in accordance with Section 907.2.20 and 914.2.3.

604.2.18 Airport Traffic Control Towers. A standby power system shall be provided in airport traffic control towers more than 65 ft. in height. Power shall be provided to the following equipment:

1. Pressurization equipment, mechanical equipment and lighting.
2. Elevator operating equipment.
3. Fire alarm and smoke detection systems.

604.2.19 Smokeproof Enclosures and Stair Pressurization Alternative. Standby power shall be provided for smokeproof enclosures, stair pressurization alternative and associated automatic fire detection systems as required by the International Building Code, Section 909.20.6.2.

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

604.2.21 Elimination of Smoke Dampers in Shaft Penetrations. Standby power shall be provided when eliminating the smoke dampers in ducts penetrating shafts in accordance with the International Building Code, Section 717.5.3, exception 2.3.

604.2.22 Common Exhaust Systems for Clothes Dryers. Standby power shall be provided for common exhaust systems for clothes dryers located in multistory structures in accordance with the International Mechanical Code, Section 504.10, Item 7.

604.2.23 Hydrogen Cutoff Rooms. Standby power shall be provided for mechanical ventilation and gas detection systems of Hydrogen Cutoff Rooms in accordance with the International Building Code, Section 421.8.

604.2.24 Means of Egress Illumination in Existing Buildings. Emergency power shall be provided for means of egress illumination in accordance with Section 1104.5 when required by the fire code official. (90 minutes in I-2, 60 minutes elsewhere.)

604.3 through 604.7 {No change.}

604.8 Energy Time Duration. Unless a time limit is specified by the fire code official, in this chapter or elsewhere in this code, or in any other referenced code or standard, the emergency and standby power system shall be supplied with enough fuel or energy storage capacity for not less than 2-hour full-demand operation of the system.

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

(39) **604.34.2 Written Record;** add the following before last sentence:
Current State of Texas Elevator Inspection shall be posted inside elevator.

(40) **Section 609.2;** change to read as follows:

609.2 Where Required. A Type I hood shall be installed at or above all commercial cooking appliances and domestic cooking appliances used for commercial purposes that produce grease vapors, including but not limited to cooking equipment used in fixed, mobile, or temporary concessions, such as trucks, buses, trailers, pavilions, or any form of roofed enclosure, as required by the fire code official.

Exceptions:

1. Tents, as provided for in Chapter 31.
2. {No change to existing Exception.}

Additionally, fuel gas and power provided for such cooking appliances shall be interlocked with the extinguishing system, as required by Section 904.12.2. Fuel gas containers and piping/hose shall be properly maintained in good working order and in accordance with all applicable regulations.

(41) **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 required in Chapter 11. New floor openings in existing buildings shall comply with the International Building Code.

(42) **Section 807.3;** change to read as follows:

807.3 Combustible Decorative Materials. In occupancies in Groups A, E, I, and R-1, and dormitories in Group R-2, curtains, draperies, fabric hangings and other similar combustible decorative materials suspended from walls or ceilings shall comply with Section 807.4 and shall not exceed 10 percent of the specific wall or ceiling area to which they are attached.

Section 807.5.2.2 and 807.5.2.3; change to read as follows:

807.5.2.2 Artwork in Corridors. Artwork and teaching materials shall be limited on the walls of corridors to not more than 20 percent of the wall area.

Such materials shall not be continuous from floor to ceiling or wall to wall. Curtains, draperies, wall hangings, and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or be noncombustible.

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

807.5.2.3 Artwork in Classrooms. Artwork and teaching materials shall be limited on walls of classrooms to not more than 50 percent of the specific wall area to which they are attached. Curtains, draperies, wall hangings and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or be noncombustible.

- (43) **Section 807.5.5.2 and 807.5.5.3;** change to read as follows:

807.5.5.2 Artwork in Corridors. Artwork and teaching materials shall be limited on the walls of corridors to not more than 20 percent of the wall area. Such materials shall not be continuous from floor to ceiling or wall to wall. Curtains, draperies, wall hangings and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or be noncombustible.

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

807.5.5.3 Artwork in Classrooms. Artwork and teaching materials shall be limited on walls of classrooms to not more than 50 percent of the specific wall area to which they are attached. Curtains, draperies, wall hangings and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or be noncombustible.

- (44) **901.6 Inspection, Testing and Maintenance:** add the following sentence after the first sentence:

The fire protection alarm, extinguishing systems, and equipment shall be inspected by licensed personnel registered with the State of Texas State Fire Marshal's Office.

- (45) **Section 901.6.1;** add Section 901.6.1.1 to read as follows:

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

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

2. For any manual (dry or wet) standpipe system not having an automatic water supply capable of flowing water through the standpipe, the tester shall connect hose from a fire hydrant or portable pumping system (as approved by the fire code official) to each FDC, and flow water through the standpipe system to the roof outlet to verify that each inlet connection functions properly. Confirm that there are no open hose valves prior to introducing water into a dry standpipe. There is no required pressure criteria at the outlet. Verify that check valves function properly and that there are no closed control valves on the system.

3. Any pressure relief, reducing, or control valves shall be tested in accordance with the requirements of NFPA 25. All hose valves shall be exercised.

4. If the FDC is not already provided with approved caps, the contractor shall install such caps for all FDC's as required by the fire code official.

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

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

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

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

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

(46) **Section 901.6.3;** add Section 901.6.3 to read as follows:

901.6.3 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.

(47) **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. ... {Remainder unchanged.}

(48) **Section 901.8.2;** change to read as follows:

901.8.2 Removal of existing Occupant-use Hose Lines. The fire code official is authorized to permit the removal of occupant-use hose lines and hose valves where all of the following conditions exist:

1. The hose line(s) would not be utilized by trained personnel or the fire department.
2. If the occupant-use hose lines are removed, but the hose valves are required to remain as per the fire code official, such shall be compatible with local fire department fittings.

(49) **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~~, or as approved by the fire code official.

- (50) **Section 903.2;** add paragraph to read as follows:

Automatic Sprinklers shall not be installed in elevator machine rooms, elevator machine spaces, and elevator hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances. Storage shall not be allowed within the elevator machine room. Signage shall be provided at the entry doors to the elevator machine room indicating “ELEVATOR MACHINERY – NO STORAGE ALLOWED.”

- (51) **Section 903.2;** delete the exception.

- (52) **903.2.8 (Group R).** An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area except for a single structure Group R-1 Bed and Breakfast occupancy provided that:

- (1) The structure is a detached single-family home that was legally constructed and occupied as a single-family residence prior to January 1, 2006, and
- (2) The total number of sleeping rooms has not been increased after January 1, 2006, nor in any case can the total number of guest rooms exceed five guest rooms, and
- (3) No guest rooms shall be located above a second story nor in a basement, and
- (4) No more than two guests per room per night shall be permitted, and
- (5) The residence is protected by a monitored residential style fire/security system with an appropriate automatic smoke detection system installed throughout the residence with occupant notification devices in accordance with Section 907.5 (Occupant notification systems), and

- (6) The residential style fire/security system must be inspected, tested and maintained in accordance with Section 907.8 (Inspection, testing and maintenance), and
- (7) Each guest room shall be equipped with a fire extinguisher and fire ladder, and
- (8) The structure shall be the residence of the owner of the property, and
- (9) The structure is less than 7,500 square feet, and
- (10) The maximum stay is 14 consecutive days and no more than 60 days in a 12-month period, and
- (11) No events may be held at a Bed and Breakfast, and
- (12) No Bed and Breakfast may use a garbage dumpster, and
- (13) If located in a residential zone, no advertising signs are permitted on the premises.

(53) **Section 903.2.9;** add Section 903.2.9.3 to read as follows:

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

(54) **Section 903.2.11; change 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 that have one or more stories other than penthouses in compliance with Section 1510 of the International Building Code, located 35 feet (10,668 mm) or more above the lowest level of fire department vehicle access, measured to the finished floor.

Exception:

Open parking structures in compliance with Section 406.5 of the International Building Code, having no other occupancies above the subject garage.

903.2.11.7 High-Piled Combustible Storage. For any building with a clear height exceeding 12 feet (4572 mm), see Chapter 32 to determine if those provisions apply.

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

(55) **Section 903.3.1.1.1;** change to read as follows:

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

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the code official.
3. Generator and transformer rooms, under the direct control of a public utility, separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than 2 hours.
4. Elevator machine rooms, machinery spaces, and hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances.
5. {Delete.}

(56) **Section 903.3.1.3;** change to read as follows:

903.3.1.3 NFPA 13D Sprinkler Systems. Automatic sprinkler systems installed in one- and two-family dwellings; Group R-3; Group R-4 Condition 1 and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D or in accordance with state law.

(57) **Section 903.3.1.4;** add to read as follows:

[F] 903.3.1.4 Freeze protection. Freeze protection systems for automatic fire sprinkler systems shall be in accordance with the requirements of the applicable referenced NFPA standard and this section.

903.3.1.4.1 Attics. Only dry-pipe, preaction, or listed antifreeze automatic fire sprinkler systems shall be allowed to protect attic spaces.

Exception: Wet-pipe fire sprinkler systems shall be allowed to protect non-ventilated attic spaces where:

1. The attic sprinklers are supplied by a separate floor control valve assembly to allow ease of draining the attic system without impairing sprinklers throughout the rest of the building, and
2. Adequate heat shall be provided for freeze protection as per the applicable referenced NFPA standard, and
3. The attic space is a part of the building's thermal, or heat, envelope, such that insulation is provided at the roof deck, rather than at the ceiling level.

903.3.1.4.2 Heat trace/insulation. Heat trace/insulation shall only be allowed where approved by the fire code official for small sections of large diameter water-filled pipe.

(58) **Section 903.3.5;** add a second and third paragraph to read as follows:

[F] Water supply as required for such systems shall be provided in conformance with the supply requirements of the respective standards; however, every water-based fire protection system shall be designed with a 10 psi safety factor. Reference Section 507.4 for additional design requirements.

All installations in Chapter 9 shall conform to the most recently adopted subdivision regulations found the City of Gainesville Code of Ordinances.

- (59) **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.

- (60) **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 and shall be activated only upon sprinkler water flow conditions.

- (61) **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.

- (62) **Section 905.3;** add Section 905.3.9 and exception to read as follows:

905.3.9 Buildings Exceeding 10,000 sq. ft. In buildings exceeding 10,000 square feet in area per story and where any portion of the building's interior area is more than 200 feet (60960 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access, Class I automatic wet or manual wet standpipes shall be provided.

Exceptions:

1. Automatic dry and semi-automatic dry standpipes are allowed as provided for in NFPA 14.
2. R-2 occupancies of four stories or less in height having no interior corridors.

- (63) **Section 905.4**, change Item 1, 3, and 5, and add Item 7 to read as follows:

1. In every required exit stairway, a hose connection shall be provided for each story above and below grade plane. Hose connections shall be located at an intermediate landing between stories, unless otherwise approved by the fire code official.

2. {No change.}

3. In every exit passageway, at the entrance from the exit passageway to other areas of a building.

Exception: Where floor areas adjacent to an exit passageway are reachable from an exit stairway hose connection by a {Remainder unchanged.}

4. {No change.}

5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a two-way hose connection located to serve the roof or at the highest landing of an exit stairway with stair access to the roof provided in accordance with Section 1011.12.

6. {No change.}

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

- (64) **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.

- (65) **Section 907.1;** add Section 907.1.4 and the following paragraph to read as follows:

907.1.4 Design Standards. Where a new fire alarm system is installed, the devices shall be addressable. Fire alarm systems utilizing more than 20 smoke detectors shall have analog initiating devices.

All alarm systems new or replacement serving 20 or more alarm actuation 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 adoption of this code, as adopted, exceeds 30% of the building. When cumulative building remodel or expansion exceeds 50% of the building, occupant must comply within 18 months of permit application.

- (66) **Section 907.2.1;** change to read as follows:

907.2.1 Group A. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies having an occupant load of 300 or more persons or more than 100 persons above or below the lowest level of exit discharge. Group A occupancies not separated from one another in accordance with Section 707.3. 10 of the International Building Code shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy.

Exception: {No change.}

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.

- (67) **Section 907.2.3;** change to read as follows:

907.2.3 Group E. A manual fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2

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

Exceptions:

1. {No change.}

1.1. Residential In-Home day care with not more than 12 children may use interconnected single station detectors in all habitable rooms. (For care of more than five children 2 1/2 or less years of age, see Section 907.2.6.) {No change to remainder of exceptions.}

(68) **Section 907.2.13**, Exception 3; change to read as follows:

3. Open air portions of buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the International Building Code; however, this exception does not apply to accessory uses including but not limited to sky boxes, restaurants, and similarly enclosed areas.

(69) **Section 907.4.2**; add Section 907.4.2.7 to read as follows:

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

(70) **Section 907.6.1**; add Section 907.6.1.1 to read as follows:

907.6.1.1 Wiring Installation. All fire alarm systems shall be installed in such a manner that a failure of any single initiating device or single open in an initiating circuit conductor will not interfere with the normal operation of other such devices. All signaling line circuits (SLC) shall be installed in such a way that a single open will not interfere with the operation of any addressable devices (Class A). Outgoing and return SLC conductors shall be installed in accordance with NFPA 72 requirements for Class A circuits and shall have a minimum of four feet separation horizontal and one-foot vertical between supply and return circuit conductors. The initiating device circuit (IDC) from a signaling line circuit interface device may be

wired Class B, provided the distance from the interface device to the initiating device is ten feet or less.

(71) **Section 907.6.3;** delete all four Exceptions.

(72) **Section 907.6.6;** add sentence at end of paragraph to read as follows:

[F] See 907.6.3 for the required information transmitted to the supervising station.

(73) **907.7 Installation:** Add second paragraph to read - All fire alarm systems shall be installed in such a manner that a failure of any single initiating device or single open in an initiating circuit conductor will not interfere with the normal operation of other such devices. All signaling line circuits (SLC) shall be installed in such a way that a single open will not interfere with the operation of any addressable devices (Class A). Outgoing and return SLC conductors shall be installed in accordance with NFPA 72 requirements for Class A circuits and shall have a minimum of four feet separation horizontal and one-foot vertical between supply and return circuit conductors. The initiating device circuit (IDC) from a signaling line circuit interface device may be wired Class B, provided the distance from the interface device to the initiating device is ten feet or less.

(74) **Section 909.22;** add to read as follows:

909.22 Stairway or Ramp Pressurization Alternative. Where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and the stair pressurization alternative is chosen for compliance with Building Code requirements for a smokeproof enclosure, interior exit stairways or ramps shall be pressurized to a minimum of 0.10 inches of water (25 Pa) and a maximum of 0.35 inches of water (87 Pa) in the shaft relative to the building measured with all interior exit stairway and ramp doors closed under maximum anticipated conditions of stack effect and wind effect. Such systems shall comply with Section 909, including the installation of a separate fire-fighter's smoke control panel as per Section 909.16, and a Smoke Control Permit shall be required from the fire department as per Section 105.7.

[F] **909.22.1 Ventilating equipment.** The activation of ventilating equipment for the stair or ramp pressurization system shall be by smoke detectors installed at each floor level at an approved location at the entrance to the smokeproof enclosure. When the closing device for the stairway or ramp shaft and vestibule doors is activated by smoke

detection or power failure, the mechanical equipment shall activate and operate at the required performance levels. Smoke detectors shall be installed in accordance with Section 907.3.

909.22.1.1 Ventilation Systems. Smokeproof enclosure ventilation systems shall be independent of other building ventilation systems. The equipment, control wiring, power wiring and ductwork shall comply with one of the following:

1. Equipment, control wiring, power wiring and ductwork shall be located exterior to the building and directly connected to the smokeproof enclosure or connected to the smokeproof enclosure by ductwork enclosed by not less than 2-hour fire barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.

2. Equipment, control wiring, power wiring and ductwork shall be located within the smokeproof enclosure with intake or exhaust directly from and to the outside or through ductwork enclosed by not less than 2-hour barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.

3. Equipment, control wiring, power wiring and ductwork shall be located within the building if separated from the remainder of the building, including other mechanical equipment, by not less than 2-hour fire barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.

Exceptions:

1. Control wiring and power wiring utilizing a 2-hour rated cable or cable system.

2. Where encased with not less than 2 inches (51 mm) of concrete.

3. Control wiring and power wiring protected by a listed electrical circuit protective systems with a fire-resistance rating of not less than 2 hours.

909.21.1.2 Standby Power. Mechanical vestibule and stairway and ramp shaft ventilation systems and automatic fire detection systems shall be provided with standby power in accordance with Section 2702 of the Building Code.

909.22.1.3 Acceptance and Testing. Before the mechanical equipment is approved, the system shall be tested in the presence of the fire code official to confirm that the system is operating in compliance with these requirements.

(75) **Section 910.2;** change **Exception 2.** and **3.** to read as follows:

[F] 2. Only manual smoke and heat removal shall not be required in areas of buildings equipped with early suppression fast-response (ESFR) sprinklers. Automatic smoke and heat removal is prohibited.

3. Only manual smoke and heat removal shall not be required in areas of buildings equipped with control mode special application sprinklers with a response time index of $50(m^*S)^{1/2}$ or less that are listed to control a fire in stored commodities with 12 or fewer sprinklers. Automatic smoke and heat removal is prohibited.

(76) **Section 910.2;** add subsections 910.2.3 with exceptions to read as follows:

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

1. In occupancies classified as Group H-2 or H-3, any of which are more than 15,000 square feet (1394 m²) in single floor area.

Exception: Buildings of noncombustible construction containing only noncombustible materials.

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

Exception: Buildings of noncombustible construction
910.3.4 Vent Operation. containing only noncombustible materials.

- (77) **Section 910.3;** add section 910.3.4 to read as follows:

Smoke and heat vents shall be capable of being operated by approved automatic and manual means. Automatic operation of smoke and heat vents shall conform to the provisions of Sections 910.3.2.1 through 910.3.2.3.

[F] 910.3.4.1 Sprinklered buildings. Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall be designed to operate automatically. The automatic operating mechanism of the smoke and heat vents shall operate at a temperature rating at least 100 degrees F (approximately 38 degrees Celsius) greater than the temperature rating of the sprinklers installed.

Exception: Manual only systems per Section 910.2.

910.3.4.2 Nonsprinklered Buildings. Where installed in buildings not equipped with an approved automatic sprinkler system, smoke and heat vents shall operate automatically by actuation of a heat-responsive device rated at between 100°F (56°C) and 220°F (122°C) above ambient.

Exception: Listed gravity-operated drop out vents.

- (78) **Section 910.4.3.1;** change to read as follows:

910.4.3.1 Makeup Air. Makeup air openings shall be provided within 6 feet (1829 mm) of the floor level. Operation of makeup air openings shall be automatic. The minimum gross area of makeup air inlets shall be 8 square feet per 1,000 cubic feet per minute (0.74 m² per 0.4719 m³/s) of smoke exhaust.

- (79) **Section 910.4.4;** change to read as follows:

910.4.4 Activation. The mechanical smoke removal system shall be activated automatically by the automatic sprinkler system or by an approved fire detection system. Individual manual controls shall also be provided.

Exception: Manual only systems per Section 910.2.

- (80) **Section 912.2;** add Section 912.2.3 to read as follows:

912.2.3 Hydrant Distance. An approved fire hydrant shall be located within 100 feet of the fire department connection as the fire hose lays along an unobstructed path.

- (81) **Section 913.2.1;** add second paragraph and exception to read as follows:

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

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

- (82) **Section 914.3.1.2;** change to read as follows:

914.3.1.2 Water Supply to required Fire Pumps. In buildings that are more than 120 feet (36.58 m) in building height, required fire pumps shall be supplied by connections to no fewer than two water mains located in different streets. Separate supply piping shall be provided between each connection to the water main and the pumps. Each connection and the supply piping between the connection and the pumps shall be sized to supply the flow and pressure required for the pumps to operate.

Exception: {No change to exception.}

- (83) **Section 1006.2.2.6;** add a new Section 1006.2.2.6 as follows:

1006.2.2.6 Electrical Rooms. For electrical rooms, special exiting requirements may apply. Reference the Electrical Code as adopted.

- (84) **Section 1009.1;** add the following **Exception 4:**

Exceptions:

{previous exceptions unchanged}

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

- (85) **Section 1010.1.9.4 Bolt Locks;** change **Exceptions 3** and **4** to read as follows:
- Exceptions:**
3. Where a pair of doors serves an occupant load of less than 50 persons in a Group B, F, M or S occupancy. {Remainder unchanged.}
4. Where a pair of doors serves a Group A, B, F, M or S occupancy {Remainder unchanged.}
- (86) **Section 1015.8 Window Openings;** change number 1 to read as follows:
1. Operable windows where the top of the sill of the opening is located more than 55 (16,764 mm) above the finished grade or other surface below and that are provided with window fall prevention devices that comply with ASTM F 2006.
- (87) **Section 1020.1 Construction;** add **Exception 6** to read as follows:
6. In group B occupancies, corridor walls and ceilings need not be of fire-resistive construction within a single tenant space when the space is equipped with approved automatic smoke-detection within the corridor. The actuation of any detector shall activate self-annunciating alarms audible in all areas within the corridor. Smoke detectors shall be connected to an approved automatic fire alarm system where such system is provided.
- (88) **Section 1029.1.1.1 Spaces under Grandstands and Bleachers;** delete this section.
- (89) **Section 1031.2;** change to read as follows:
- 1031.2 Reliability.** Required exit accesses, exits and exit discharges shall be continuously maintained free from obstructions or impediments to full instant use in the case of fire or other emergency exit or exit passageway shall not be used for any purpose that interferes with a means of egress.
- (90) **Section 1103.3;** add sentence to end of paragraph as follows:
- Provide emergency signage as required by Section 607.3.
- (91) **Section 1103.5;** add Section 1103.5.1 to read as follows:
- 1103.5.1 Spray Booths and Rooms.** Existing spray booths and spray rooms shall be protected by an approved automatic fire-extinguishing system in accordance with Section 2404.
- (92) **Section 1103.7;** add Section 1103.7.8 and 1103.7.8.1 to read as follows:

1103.7.8 Fire Alarm System Design Standards. Where an existing fire alarm system is upgraded or replaced, the devices shall be addressable. Fire alarm systems utilizing more than 20 smoke and/or heat detectors shall have analog initiating devices.

Exception: Existing systems need not comply unless the total building, or fire alarm system, remodel or expansion exceeds 30% of the building. When cumulative building, or fire alarm system, remodel or expansion initiated after the date of original fire alarm panel installation exceeds 50% of the building, or fire alarm system, the fire alarm system must comply within 18 months of permit North Central Texas Council of Governments 26 As of August 2015 IFC Amendments application.

1103.7.8.1 Communication requirements. Refer to Section 907.6.6 for applicable requirements.

(93) **Section 2304.1;** change to read as follows:

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

1. Conducted by a qualified attendant; and/or,
2. Shall be under the supervision of a qualified attendant; and/or
3. Shall be an unattended self-service facility in accordance with Section 2304.3.

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

(94) **Section 2401.2;** delete this section. [Reason: inadequate coverage with Chapter 15.]

(95) **Table 3206.2, footnote j;** change text to read as follows:

j. Where storage areas are protected by either early suppression fast response (ESFR) sprinkler systems or control mode special application sprinklers with a response time index of $50 (m \cdot s)^{1/2}$ or less that are listed to control a fire in the stored commodities with 12 or fewer sprinklers, installed in accordance with NFPA 13, manual smoke and heat vents or manually activated engineered mechanical smoke exhaust systems shall be required within these areas.

(96) **Section 3310.1;** add sentence to end of paragraph to read as follows:

When fire apparatus access roads are required to be installed for any structure or development, they shall be approved prior to the time at

which construction has progressed beyond completion of the foundation of any structure.

(97) **Section 5601.1.3;** change to read as follows:

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

Exceptions:

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

2. The use of fireworks for approved fireworks displays as allowed in Section 5608.

(98) **Section 5703.6;** add a sentence to read as follows:

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

(99) **Section 5704.2.9.5;** change Section 5704.2.9.5 and add Section 5704.2.9.5.3 to read as follows:

5704.2.9.5 Above-ground Tanks Inside of Buildings. Above-ground tanks inside of buildings shall comply with Section 5704.2.9.5.1 through 5704.2.9.5.3.

5704.2.9.5.1 {No change.}

5704.2.9.5.2 {No change.}

5704.2.9.5.3 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 5704.2.9.7 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 5003.1.1(1), and such tanks shall not be required to be located in a control area. Such tanks shall not be located more than two stories below grade.

- (100) **Section 5704.2.11.4;** add a sentence to read as follows:

5704.2.11.4 Leak Prevention. Leak prevention for underground tanks shall comply with Sections 5704.2.11.4.1 through 5704.2.11.4.3. An approved method of secondary containment shall be provided for underground tank and piping systems.

- (101) **Section 5704.2.11.4.2;** change to read as follows:

5704.2.11.4.2 Leak Detection. Underground storage tank systems shall be provided with an approved method of leak detection from any component of the system that is designed and installed in accordance with NFPA 30 and as specified in Section 5704.2.11.4.3.

- (102) **Section 5704.2.11.4;** add Section 5704.2.11.4.3 to read as follows:

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

- (103) **Section 6103.2.1;** add Section 6103.2.1.8 to read as follows:

6103.2.1.8 Jewelry Repair, Dental Labs and Similar Occupancies.

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

- (104) **Section 6104.2, Exception;** add an exception 2 to read as follows:

Exceptions:

1. {existing text unchanged}
2. Except as permitted in Sections 308 and 6104.3.2, LP-gas containers are not permitted in residential areas.

- (105) **Section 6104.3;** add Section 6104.3.2 to read as follows:

6104.3.2 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 6104.3 for location of containers.

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

- (106) **Section 6107.4 and 6109.13;** change to read as follows:

6107.4 Protecting Containers from Vehicles. Where exposed to vehicular damage due to proximity to alleys, driveways or parking areas, LP-gas containers, regulators and piping shall be protected in accordance with Section 312.

6109.13 Protection of Containers. LP-gas containers shall be stored within a suitable enclosure or otherwise protected against tampering. Vehicle impact protection shall be provided as required by Section 6107.4.

- (107) **Appendix A; A101.1 Scope;** add the following to the end of the sentence:

All references to the "Board of Appeals" shall mean the "City of Gainesville Board of Appeals" and their adopted regulations.

(108) **Table B105.2**; change footnote a. to read as follows:

a. The reduced fire-flow shall be not less than 1,500 gallons per minute.

Sec. 5-6. - Specific amendments to 2014 National Electric Code NFPA 70.

[Specific amendments:]

(1) **Article 100**; add the following to definitions:

Engineering Supervision. Supervision by a Qualified State of Texas Licensed Professional Engineer engaged primarily in the design or maintenance of electrical installations.

(2) **Article 100**; amend the following definition:

Intersystem Bonding Termination. A device that provides a means for connecting intersystem bonding conductors for communication systems and other systems to the grounding electrode system. Bonding conductors for other systems shall not be larger than 6 AWG.

(3) **Article 110.2**; change the following to read as follows:

110.2 Approval. The conductors and equipment required or permitted by this *Code* shall be acceptable only if approved. Approval of equipment may be evident by listing and labeling of equipment by a Nationally Recognized Testing Lab (NRTL) with a certification mark of that laboratory or a qualified third party inspection agency approved by the AHJ.

Exception: Unlisted equipment that is relocated to another location within a jurisdiction or is field modified is subject to the approval by the AHJ. This approval may be by a field evaluation by a NRTL or qualified third party inspection agency approved by the AHJ.

Informational Note No. 1: See 90.7, Examination of Equipment for Safety, and 110.3, Examination, Identification, Installation, and Use of Equipment. See definitions of *Approved*, *Identified*, *Labeled*, and *Listed*.

Informational Note No. 2: Manufacturer's self-certification of equipment may not necessarily comply with US product safety standards as certified by a Nationally Recognized Testing Lab.

Informational Note No. 3: NFPA 790 and 791 provide an example of an approved method for qualifying a third party inspection agency.

(4) **Article 210.52(G) (1) Garages:** delete the following

(1) Garages. In each attached garage and in each detached garage with electric power. At least one receptacle outlet shall be installed for each car space.

(5) **Article 230.71(A);** add the following exception:

Exception: Multi-occupant buildings. Individual service disconnecting means is limited to six for each occupant. The number of individual disconnects at one location may exceed six.

(6) **Article 240.91;** delete the Article.

(7) **Article 300.11;** add the following exception:

Exception: Ceiling grid support wires may be used for structural supports when the associated wiring is located in that area, not more than two raceways or cables supported per wire, with a maximum nominal metric designation 16 (trade size 1/2").

(8) **Article 310.15(B) (7);** change to read as follows:

(7) This Article shall not be used in conjunction with 220.82.

(9) **Article 500.8 (A) (3)** changed to read as follows:

500.8 Equipment.

Articles 500 through 504 require equipment construction and installation that ensure safe performance under conditions of proper use and maintenance.

Informational Note No. 1: It is important that inspection authorities and users exercise more than ordinary care with regard to installation and maintenance.

Informational Note No. 2: Since there is no consistent relationship between explosion properties and ignition temperature, the two are independent requirements.

Informational Note No. 3: Low ambient conditions require special consideration. Explosion proof or dust-ignition proof equipment may not be suitable for use at temperatures lower than -25°C (-13°F) unless they are identified for low-temperature service. However, at low ambient temperatures, flammable concentrations of vapors may not exist in a location classified as Class I, Division 1 at normal ambient temperature.

(A) Suitability. Suitability of identified equipment shall be determined by one of the following:

- (1) Equipment listing or labeling
- (2) Evidence of equipment evaluation from a qualified testing laboratory or inspection agency concerned with product evaluation
- (3) Evidence acceptable to the authority having jurisdiction such as a manufacturer's self-evaluation or an engineering judgment signed and sealed by a qualified licensed Professional Engineer in the State of Texas.

Informational Note: Additional documentation for equipment may include certificates demonstrating compliance with applicable equipment standards, indicating special conditions of use, and other pertinent information.

(10) **Article 505.7 (A)** changed to read as follows:

505.7 Special Precaution.

Article 505 requires equipment construction and installation that ensures safe performance under conditions of proper use and maintenance.

Informational Note No. 1: It is important that inspection authorities and users exercise more than ordinary care with regard to the installation and maintenance of electrical equipment in hazardous (classified) locations.

Informational Note No. 2: Low ambient conditions require special consideration. Electrical equipment depending on the protection techniques described by 505.8(A) may not be suitable for use at temperatures lower than -20°C (-4°F) unless they are identified for use at lower temperatures. However, at low ambient temperatures, flammable concentrations of vapors may not exist in a location classified Class I, Zones 0, 1, or 2 at normal ambient temperature.

(A) Implementation of Zone Classification System. Classification of areas, engineering and design, selection of equipment and wiring methods, installation, and inspection shall be performed by a qualified licensed Professional Engineer in the State of Texas.

- (11) **Article 517.30 Essential Electrical Systems for Hospitals;** create a new (H) and add the following language:

(G) Coordination. Overcurrent protective devices serving the equipment branch of the essential electrical system shall be coordinated for the period of time that a fault's duration extends beyond 0.1 second.

Exception No. 1: Between transformer primary and secondary overcurrent protective devices, where only one overcurrent protective device or set of overcurrent protective device exists on the transformer secondary.

Exception No. 2: Between overcurrent protective devices of the same size (ampere rating) in series.

Informational Note: The terms coordination and coordinated as used in this section do not cover the full range of overcurrent conditions.

(H) Selective Coordination. Overcurrent protective devices serving the life safety, and critical branches of the essential electrical system shall be selectively coordinated with all supply-side overcurrent protective devices.

Exception No. 1: Between transformer primary and secondary overcurrent protective devices, where only one overcurrent protective device or set of overcurrent protective devices exists on the transformer secondary.

Exception No. 2: Between overcurrent protective devices of the same size (ampere rating) in series.

Informational Note: The terms coordination and coordinated as used in this section do not cover the full range of overcurrent conditions.

(12) **Article 680.25(A) changed to read as follows:**

680.25 Feeders.

These provisions shall apply to any feeder on the supply side of panelboards supplying branch circuits for pool equipment covered in Part II of this article and on the load side of the service equipment or the source of a separately derived system.

(A) Wiring Methods.

(1) **Feeders.** Feeders shall be installed in rigid metal conduit, intermediate metal conduit. The following wiring methods shall be permitted if not subject to physical damage:

- (1) Liquidtight flexible nonmetallic conduit
- (2) Rigid polyvinyl chloride conduit
- (3) Reinforced thermosetting resin conduit
- (4) Electrical metallic tubing where installed on or in a building
- (5) Electrical nonmetallic tubing where installed within a building
- (6) Type MC Cable where installed within a building and if not subject to corrosive environment
- (7) Nonmetallic-sheathed cable
- (8) Type SE cable

- (13) Electric conductors. Conductors normally used to carry current inside of buildings and structures shall be copper. Where the conductor material is not specified, the sizes given in the electric code shall apply to copper conductors. Service drop conductors normally used to carry current outside of buildings and structures can be either copper or aluminum.
- (14) Conduit in metal commercial buildings. All metal commercial and industrial buildings shall be wired using rigid metal conduit, intermediate metal conduit, electrical metallic tubing, electrical nonmetallic tubing, MC cable or a combination thereof.
- (15) Unlawful connections. Separate buildings or structures shall not be connected together by extension cords, quick-disconnect couplers or connectors, improper wiring methods or any other means found not to be in compliance with the intent of this code by the building official, the fire marshal or their appointed representatives. The building official, the fire marshal or their

representatives may order such services disconnected and may issue citations for violations thereof.

- (16) Generators shall not be used in lieu of electric service conductors for the purpose of supplying electricity to buildings or structures in lieu of the structure's proper connection to the public electric utility system. Generator systems are for use during emergency conditions only and must meet the 2014 NEC requirements.
- (17) Fuel burning lanterns, gas lights, candles, or other types of nonelectric illumination systems shall not be used in lieu of required electric lighting fixtures required by this code. Fuel shall include, but not be limited to, gasoline, kerosene, diesel oil, commercial lantern fuel and low-pressure gas.
- (18) Disconnection of electric service. The first responder at an emergency, the fire marshal, the building official, the chief of police, the city manager, the emergency management coordinator or their designated representatives may order the disconnection of electrical services due to unsafe conditions or for noncompliance with city ordinances.
- (19) External disconnects. An external main disconnect is required within ten (10) feet of the meter base for each residential and commercial building that has an electric service. This shall include individual tenant spaces in multifamily and multi-tenant occupancies.
- (20) Exposed work. When upgrading an electrical service entrance, circuit breaker panel, power distribution panel or performing other exterior electrical work or interior work that also affects the exterior, the master electrician in charge of such work shall have any exposed nonmetallic wiring on the exterior of the building or structure or premises placed in metallic or nonmetallic conduit that is approved for exterior use. In addition, any exposed exterior nonmetallic wiring that is deteriorated due to prolonged exposure to the weather, sunlight or other negative conditions shall be replaced with new wiring prior to placing it in conduit.
- (21) Only electrical contractors registered with the State of Texas and the City of Gainesville shall apply for and be issued permits.
 - a. Exception: Homeowners with valid homeowner's exemption on file.
 - b. Exception: Maintenance men with valid maintenance man exemption on file.
- (22) Motor fuel dispensing pumps shall be wired on their own circuits. Light fixtures, computers and other related equipment shall not be wired on the same circuit(s) as the pumps.

Sec. 5-7. - Specific amendments to the 2015 International Plumbing Code.

[Specific amendments:]

- (1) Add to the end of paragraph 501.1 "A permit is required for all new and replacement water heaters in accordance with State Plumbing Law."
- (2) Add paragraph 602.3.6 Water wells.
 - a. No new water wells of any type, or for any purpose, shall be drilled within the city limits of the City of Gainesville, Texas.
 - b. Existing functional wells may be cleaned out or repaired, but shall not be made deeper nor shall they be enlarged or altered in any way.
 - c. Existing nonfunctional wells shall not be reactivated into producing wells. When these types of wells are found or located it shall be the responsibility of the property owner to have such wells capped in accordance with current State of Texas regulations.
 - d. Monitoring wells for the exclusive use by governmental agencies shall be exempt from these requirements; however, such wells shall be capped when their use is discontinued.
 - e. **Exception:** Individual water supply systems that are existing in newly, as of August 2003, annexed areas of the city may continue to exist and to be maintained in accordance with paragraphs 601.1 through 602.3.5.1 when city-supplied water is unavailable. When city-supplied water becomes available in the future the property owner is responsible for connecting to city water when such water well fails for any reason. The maintenance of a well as it pertains to this exception only can include the drilling of another well when the existing well fails.
- (3) **Table of Contents, Chapter 7, Section 714;** change to read as follows:

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- (4) **Section 102.8;** change to read as follows:

102.8 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 15 and such codes, when specifically adopted, and standards shall be considered as part of the requirements

of this code to the prescribed extent of each such reference. Where the differences occur between provisions of this code and the referenced standards, the provisions of this code shall be the minimum requirements. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the adopted amendments. Any reference to NFPA 70 or the National Electrical Code (NEC) shall mean the Electrical Code as adopted.

- (5) **Sections 106.6.2 and 106.6.3;** change to read as follows:

106.6.2 Fee schedule. The fees for all plumbing work shall be as adopted by resolution of the governing body of the jurisdiction.

- (6) **Section 109;** delete entire section and insert the following:

SECTION 109 MEANS OF APPEAL

109.1 Application for appeal. Any person shall have the right to appeal a decision of the code official to the board of appeals established by ordinance. The board shall be governed by the enabling ordinance.

- (7) **Section 305.4.1;** change to read as follows:

305.4.1 Sewer depth. Building sewers shall be a minimum of 12 inches (304 mm) below grade.

- (8) **Section 305.7;** change to read as follows:

305.7 Protection of components of plumbing system. Components of a plumbing system installed within 3 feet along alleyways, driveways, parking garages or other locations in a manner in which they could be exposed to damage shall be recessed into the wall or otherwise protected in an approved manner.

- (9) **Section 314.2.1;** change to read as follows:

314.2.1 Condensate disposal. Condensate from all cooling coils and evaporators shall be conveyed from the drain pan outlet to an approved place of disposal. ... {text unchanged} ... Condensate shall not discharge into a street, alley, sidewalk, rooftop, or other areas so as to cause a nuisance.

- (10) **Section 409.2;** change to read as follows:

409.2 Water connection. The water supply to a commercial dishwashing machine shall be protected against backflow by an air gap or backflow preventer in accordance with Section 608. (Remainder of section unchanged.)

(11) **Section 412.4;** change to read as follows:

412.4 Required location for floor drains. Floor drains shall be installed in the following areas.

1. In public coin-operated laundries and in the central washing facilities of multiple family dwellings, the rooms containing automatic clothes washers shall be provided with floor drains located to readily drain the entire floor area. Such drains shall have a minimum outlet of not less than 3 inches (76 mm) in diameter.
2. Commercial kitchens. In lieu of floor drains in commercial kitchens, the code official may accept floor sinks.
3. Public restrooms.

(12) **Section 419.3;** change to read as follows:

419.3 Surrounding material. Wall and floor space to a point 2 feet (610 mm) in front of a urinal lip and 4 feet (1219 mm) above the floor and at least 2 feet (610 mm) to each side of the urinal shall be waterproofed with a smooth, readily cleanable, hard, nonabsorbent material.

(13) **Section 502.3;** change to read as follows:

502.3 Appliances in attics. Attics containing a water heater shall be provided . . . {bulk of paragraph unchanged} . . . side of the water heater. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), or larger where such dimensions be not less than 20 inches by 30 inches (508mm by 762mm) where such dimensions are large enough to allow removal of the water heater. A walkway to an appliance shall be rated as a floor as approved by the building official. As a minimum, for access to the attic space, provide one of the following:

1. A permanent stair.
2. A pull down stair with a minimum 300 lb (136 kg) capacity.
3. An access door from an upper floor level.

4. Access Panel may be used in lieu of items 1, 2, and 3 with prior approval of the code official due to building conditions.

Exceptions:

1. The passageway and level service space are not required where the appliance is capable of being serviced and removed... {remainder of section unchanged}

- (14) **Section 502.6;** add Section 502.6 to read as follows:

502.6 Water heaters above ground or floor. When the attic, roof, mezzanine or platform in which a water heater is installed is more than eight (8) feet (2438 mm) above the ground or floor level, it shall be made accessible by a stairway or permanent ladder fastened to the building.

Exception: A max 10-gallon water heater (or larger with approval) is capable of being accessed through a lay-in ceiling and a water heater is installed is not more than ten (10) feet (3048 mm) above the ground or floor level and may be reached with a portable ladder.

- (15) **Section 504.6;** change to read as follows:

504.6 Requirements for discharge piping. The discharge piping serving a pressure relief valve, temperature relief valve or combination thereof shall:

1. Not be directly connected to the drainage system.
2. Discharge through an air gap.
3. Not be smaller than the diameter of the outlet of the valve served and shall discharge full size to the air gap.
4. Serve a single relief device and shall not connect to piping serving any other relief device or equipment.

Exception: Multiple relief devices may be installed to a single T & P discharge piping system when approved by the administrative authority and permitted by the manufactures installation instructions and installed with those instructions.

5. Discharge to an indirect waste receptor or to the outdoors.

6. Discharge in a manner that does not cause personal injury or structural damage.
7. Discharge to a termination point that is readily observable by the building occupants.
8. Not be trapped.
9. Be installed so as to flow by gravity.
10. Terminate not more than 6 inches above and not less than two times the discharge pipe diameter above the floor or flood level rim of the waste receptor.
11. Not have a threaded connection at the end of such piping.
12. Not have valves or tee fittings.
13. Be constructed of those materials listed in Section 605.4 or materials tested, rated and approved for such use in accordance with ASME A112.4.1.

(16) **Section 504.7.1;** change to read as follows:

Section 504.7.1 Pan size and drain. The pan shall be not less than 1 1/2 inches (38 mm) in depth and shall be of sufficient size and shape to receive all dripping or condensate from the tank or water heater. The pan shall be drained by an indirect waste pipe having a diameter of not less than 3/4 inch (19 mm). Piping for safety pan drains shall be of those materials listed in Table 605.4. Multiple pan drains may terminate to a single discharge piping system when approved by the administrative authority and permitted by the manufactures installation instructions and installed with those instructions.

(17) **Section 604.4;** add Section 604.4.1 to read as follows:

604.4.1 State maximum flow rate. Where the State mandated maximum flow rate is more restrictive than those of this section, the State flow rate shall take precedence.

(18) **Section 606.1;** delete items #4 and #5.

(19) **Section 606.2;** change to read as follows:

606.2 Location of shutoff valves. Shutoff valves shall be installed in the following locations:

1. On the fixture supply to each plumbing fixture other than bathtubs and showers in one- and two-family residential occupancies, and other than in individual sleeping units that are provided with unit shutoff valves in hotels, motels, boarding houses and similar occupancies.
2. On the water supply pipe to each appliance or mechanical equipment.

(20) **Section 608.1;** change to read as follows:

608.1 General. A potable water supply system shall be designed, installed and maintained in such a manner so as to prevent contamination from non-potable liquids, solids or gases being introduced into the potable water supply through cross-connections or any other piping connections to the system. Backflow preventer applications shall conform to applicable local regulations, Table 608.1, and as specifically stated in Sections 608.2 through 608.16.10.

(21) **Section 608.16.5;** change to read as follows:

608.16.5 Connections to lawn irrigation systems. The potable water supply to lawn irrigation systems shall be protected against backflow by an atmospheric-type vacuum breaker, a pressure-type vacuum breaker, a double-check assembly or a reduced pressure principle backflow preventer. A valve shall not be installed downstream from an atmospheric vacuum breaker. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.

(22) **Section 608.17;** change to read as follows:

608.17 Protection of individual water supplies. An individual water supply shall be located and constructed so as to be safeguarded against contamination in accordance with applicable local regulations. Installation shall be in accordance with Sections 608.17.1 through 608.17.8.

(23) **Section 610.1;** add exception to read as follows:

610.1 General. New or repaired potable water systems shall be purged of deleterious matter and disinfected prior to utilization. The method to be followed shall be that prescribed by the health authority or water purveyor having jurisdiction or, in the absence of a prescribed method, the procedure described in either AWWA C651 or AWWA C652, or as described in this section. This requirement shall apply to “on-site” or “in-plant” fabrication of a system or to a modular portion of a system.

1. The pipe system shall be flushed with clean, potable water until dirty water does not appear at the points of outlet.
2. The system or part thereof shall be filled with a water/chlorine solution containing at least 50 parts per million (50 mg/L) of chlorine, and the system or part thereof shall be valved-off and allowed to stand for 24 hours; or the system or part thereof shall be filled with a water/chlorine solution containing at least 200 parts per million (200 mg/L) of chlorine and allowed to stand for 3 hours.
3. Following the required standing time, the system shall be flushed with clean potable water until the chlorine is purged from the system.
4. The procedure shall be repeated where shown by a bacteriological examination that contamination remains present in the system.

Exception: With prior approval the Code Official may wave this requirement when deemed un-necessary.

(24) **Section 703.6;** Delete

(25) **Section 704.5;** added to read as follows:

704.5 Single stack fittings. Single stack fittings with internal baffle, PVC schedule 40 or cast iron single stack shall be designed by a registered engineer and comply to a national recognized standard.

(26) **Section 705.11.2;** change to read as follows:

705.11.2 Solvent cementing. Joint surfaces shall be clean and free from moisture. A purple primer that conforms to ASTM F 656 shall be applied. Solvent cement not purple in color and conforming to ASTM D 2564, CSA B137.3, CSA B181.2 or CSA B182.1 shall be applied to all joint surfaces. The joint shall be made while the cement is wet and shall be in accordance with ASTM D 2855. Solvent cement joints shall be permitted above or below ground.

(27) **Section 712.5;** add Section 712.5 to read as follows:

712.5 Dual Pump System. All sumps shall be automatically discharged and, when in any “public use” occupancy where the sump serves more than 10 fixture units, shall be provided with dual pumps or ejectors arranged to function independently in case of overload or mechanical failure. For storm drainage sumps and pumping systems, see Section 1113.

- (28) **Section 714, 714.1;** change to read as follows:

**SECTION 714
ENGINEERED DRAINAGE DESIGN**

714.1 Design of drainage system. The sizing, design and layout of the drainage system shall be designed by a registered engineer using approved design methods.

- (29) **Section 804.2;** added to read as follows:

804.2 Special waste pipe, fittings, and components. Pipes, fittings, and components receiving or intended to receive the discharge of any fixture into which acid or corrosive chemicals are placed shall be constructed of CPVC, high silicone iron, PP, PVDF, chemical resistant glass, or glazed ceramic materials.

- (30) **Section 903.1;** change to read as follows:

903.1 Roof extension. Open vent pipes that extend through a roof shall terminate not less than six (6) inches (152 mm) above the roof. Where a roof is to be used for assembly or as a promenade, observation deck, sunbathing deck or similar purposes, open vent pipes shall terminate not less than 7 feet (2134 mm) above the roof.

- (31) **Section 917 Single stack vent system.** Delete entire section.

- (32) **Section 1002.10;** delete.

- (33) **Sections 1101.1 – 1101.6, 1101.8 – 1101.9; 1202.1-1102.4; 1103 -** delete.

- (34) **Section 1106.1;** change to read as follows:

1106.1 General. The size of the vertical conductors and leaders, building storm drains, building storm sewers, and any horizontal branches of such drains or sewers shall be based on six (6) inches per hour rainfall rate.

- (35) **Section 1108.3;** change to read as follows:

1108.3 Sizing of secondary drains. Secondary (emergency) roof drain systems shall be sized in accordance with Section 1106. Scuppers shall be sized to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by Section 1101.7. Scuppers shall not have an opening dimension of less than 4 inches (102 mm). The flow through the primary system shall not be considered when sizing the secondary roof drain system.

- (36) **Section 1109;** delete this section.

- (37) **Section 1202.1;** delete **Exception 2.**

Sec. 5-8. - Specific amendments to the 2015 International Fuel Gas Code Code.

[Specific amendments:]

- (1) **Section 102.2;** add an exception to read as follows:

Exception: Existing dwelling units shall comply with Section 621.2.

- (2) **Section 102.8;** change to read as follows:

102.8 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 8 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 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.

- (3) **Section 306.3;** change to read as follows:

[M] 306.3 Appliances in attics. Attics containing appliances shall be provided . . . {bulk of paragraph unchanged} . . . side of the appliance. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), or larger where such dimensions are not large enough to allow removal of the largest appliance. A walkway to an appliance shall be rated as a floor as approved by the building official. As a minimum, for access to the attic space, provide one of the following:

1. A permanent stair.
2. A pull down stair with a minimum 300 lb (136 kg) capacity.
3. An access door from an upper floor level.
4. Access Panel may be used in lieu of items 1, 2, and 3 with prior approval of the code official due to building conditions.

Exceptions:

1. The passageway and level service space are not required where the appliance is capable of being serviced and removed through the required opening.
2. Where the passageway is not less than ... {bulk of section to read the same}.

- (4) **Section 306.5;** change to read as follows:

[M] 306.5 Equipment and appliances on roofs or elevated structures. Where equipment requiring access or appliances are located on an elevated structure or the roof of a building such that personnel will have to climb higher than 16 feet (4877 mm) above grade to access, a permanent interior or exterior means of access shall be provided. Permanent exterior ladders providing roof access need not extend closer than 12 feet (2438 mm) to the finish grade or floor level below and shall extend to the equipment and appliances' level service space. Such access shall . . . {bulk of section to read the same} . . . on roofs having a slope greater than 4 units vertical in 12 units horizontal (33-percent slope). ... {bulk of section to read the same}.

- (5) **Section 306.5.1;** change to read as follows:

[M] 306.5.1 Sloped roofs. Where appliances, equipment, fans or other components that require service are installed on a roof having a slope of 3 units vertical in 12 units horizontal (25-percent slope) or greater and having an edge more than 30 inches (762 mm) above grade at such edge, a catwalk at least 16 inches in width with substantial cleats spaced not more than 16 inches apart shall be provided from the roof access to a level platform at the appliance. The level platform shall be provided on each side of the appliance to which access is required for service, repair or maintenance. The platform shall be not less than 30 inches (762 mm) in any dimension and shall be provided with guards. The guards shall extend not less than 42 inches (1067 mm) above the platform, shall be constructed so as to prevent the passage of a 21-inch-diameter (533 mm) sphere and shall comply with the loading requirements for guards specified in the International Building Code.

- (6) **Section 306;** add Section 306.7 with exception and subsection 306.7.1 to read as follows:

306.7 Water heaters above ground or floor. When the attic, roof, mezzanine or platform in which a water heater is installed is more than eight (8) feet (2438 mm) above the ground or floor level, it shall be made accessible by a stairway or permanent ladder fastened to the building.

- (7) **Section 401.5;** add a second paragraph to read as follows:

Both ends of each section of medium pressure gas piping shall identify its operating gas pressure with an approved tag. The tags are to be composed of aluminum or stainless steel and the following wording shall be stamped into the tag:

"WARNING
1/2 to 5 psi gas pressure
Do Not Remove"

- (8) **Section 402.3;** add an exception to read as follows:

Exception: Corrugated stainless steel tubing (CSST) shall be a minimum of 1/2" (18 EHD).

- (9) **Section 404.12;** change to read as follows:

404.12 Minimum burial depth. Underground piping systems shall be installed a minimum depth of 18 inches (458 mm) top of pipe below grade.

- (10) **Section 406.1;** change to read as follows:

406.1 General. Prior to acceptance and initial operation, all piping installations shall be inspected and pressure tested to determine that the materials, design, fabrication, and installation practices comply with the requirements of this code. The permit holder shall make the applicable tests prescribed in Sections 406.1.1 through 406.1.5 to determine compliance with the provisions of this code. The permit holder shall give reasonable advance notice to the code official when the piping system is ready for testing. The equipment, material, power and labor necessary for the inspections and test shall be furnished by the permit holder and the permit holder shall be responsible for determining that the work will withstand the test pressure prescribed in the following tests.

- (11) **Section 406.4;** change to read as follows:

406.4 Test pressure measurement. Test pressure shall be measured with a monometer or with a pressure-measuring device designed and calibrated to read, record, or indicate a pressure loss caused by leakage during the pressure test period. The source of pressure shall be isolated before the pressure tests are made.

- (12) **Section 406.4.1;** change to read as follows:

406.4.1 Test pressure. The test pressure to be used shall be no less than 3 psig (20 kPa gauge), or at the discretion of the Code Official, the piping and valves may be tested at a pressure of at least six (6) inches (152 mm) of mercury, measured with a manometer or slope gauge. For tests requiring a pressure of 3 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one half inches (3 1/2"), a set hand, 1/10 pound incrementation and pressure range

not to exceed 6 psi for tests requiring a pressure of 3 psig. For tests requiring a pressure of 10 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one-half inches (3 ½”), a set hand, a minimum of 2/10 pound incrementation and a pressure range not to exceed 20 psi. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa) (1/2 psi) and less than 200 inches of water column pressure (52.2 kPa) (7.5 psi), the test pressure shall not be less than ten (10) pounds per square inch (69.6 kPa). For piping carrying gas at a pressure that exceeds 200 inches of water column (52.2 kPa) (7.5 psi), the test pressure shall be not less than one and one-half times the proposed maximum working pressure.

Diaphragm gauges used for testing must display a current calibration and be in good working condition. The appropriate test must be applied to the diaphragm gauge used for testing.

- (13) **Section 406.4.2;** change to read as follows:

406.4.2 Test duration. Test duration shall be held for a length of time satisfactory to the Code Official, but in no case for less than fifteen (15) minutes. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa), the test duration shall be held for a length of time satisfactory to the Code Official, but in no case for less than thirty (30) minutes. (Delete remainder of section.)

- (14) **Section 409.1;** add Section 409.1.4 to read as follows:

409.1.4 Valves in CSST installations. Shutoff valves installed with corrugated stainless steel (CSST) piping systems shall be supported with an approved termination fitting, or equivalent support, suitable for the size of the valves, of adequate strength and quality, and located at intervals so as to prevent or damp out excessive vibration but in no case greater than 12-inches from the center of the valve. Supports shall be installed so as not to interfere with the free expansion and contraction of the system's piping, fittings, and valves between anchors. All valves and supports shall be designed and installed so they will not be disengaged by movement of the supporting piping.

- (15) **Section 410.1;** add a second paragraph and exception to read as follows:

Access to regulators shall comply with the requirements for access to appliances as specified in Section 306.

Exception: A passageway or level service space is not required when the regulator is capable of being serviced and removed through the required attic opening.

- (16) **Section 621.2;** add exception as follows:

621.2 Prohibited use. One or more unvented room heaters shall not be used as the sole source of comfort heating in a dwelling unit.

Exception: Existing approved unvented heaters may continue to be used in dwelling units, in accordance with the code provisions in effect when installed, when approved by the Code Official unless an unsafe condition is determined to exist as described in Section 108.7.

Sec. 5-9. - Specific amendments to the 2015 International Mechanical Code.

[Specific amendments:]

- (1) **Section 102.8;** change to read as follows:

102.8 Referenced Codes and Standards. The codes and standards referenced herein shall be those that are listed in Chapter 15 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 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 adopted amendments. Any reference to NFPA 70 or the National Electrical Code (NEC) shall mean the Electrical Code as adopted.

- (2) **Section 306.3;** change to read as follows:

306.3 Appliances in Attics. Attics containing appliances shall be provided . . . {bulk of paragraph unchanged} . . . side of the appliance. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), or larger where such dimensions are not large enough to allow removal of the largest appliance. A walkway to an appliance shall be rated as a floor as approved by the building official. As a minimum, for access to the attic space, provide one of the following:

1. A permanent stair.
2. A pull down stair with a minimum 300 lb. (136 kg) capacity.
3. An access door from an upper floor level.
4. Access Panel may be used in lieu of items 1, 2, and 3 with prior approval of the code official due to building conditions.

Exceptions:

1. The passageway and level service space are not required where the appliance is capable of being serviced and removed... {remainder of

section unchanged}

- (3) **Section 306.5;** change to read as follows:

306.5 Equipment and Appliances on Roofs or Elevated Structures. Where equipment requiring access or appliances are located on an elevated structure or the roof of a building such that personnel will have to climb higher than 16 feet (4877 mm) above grade to access, a permanent interior or exterior means of access shall be provided. Permanent exterior ladders providing roof access need not extend closer than 12 feet (2438 mm) to the finish grade or floor level below and shall extend to the equipment and appliances' level service space. Such access shall . . . {bulk of section to read the same} . . . on roofs having a slope greater than 4 units vertical in 12 units horizontal (33-percent slope). ... {bulk of section to read the same}.

- (4) **Section 306.5.1;** change to read as follows:

306.5.1 Sloped Roofs. Where appliances, equipment, fans or other components that require service are installed on a roof having a slope of 3 units vertical in 12 units horizontal (25-percent slope) or greater and having an edge more than 30 inches (762 mm) above grade at such edge, a catwalk at least 16 inches in width with substantial cleats spaced not more than 16 inches apart shall be provided from the roof access to a level platform at the appliance. The level platform shall be provided on each side of the appliance to which access is required for service, repair or maintenance. The platform shall be not less than 30 inches (762 mm) in any dimension and shall be provided with guards. The guards shall extend not less than 42 inches (1067 mm) above the platform, shall be constructed so as to prevent the passage of a 21-inch-diameter (533 mm) sphere and shall comply with the loading requirements for guards specified in the International Building Code.

- (5) **Section 306;** add Section 306.6 to read as follows:

306.6 Water Heaters Above Ground or Floor. When the mezzanine or platform in which a water heater is installed is more than eight (8) feet (2438 mm) above the ground or floor level, it shall be made accessible by a stairway or permanent ladder fastened to the building.

Exception: A maximum 10-gallon water heater (or larger with approval) is capable of being accessed through a lay-in ceiling and the water heater installed is not more than ten (10) feet (3048 mm) above the ground or floor level and may be reached with a portable ladder.

- (6) **Section 307.2.3;** amend item 2 to read as follows:

2. A separate overflow drain line shall be connected to the drain pan provided with the equipment. Such overflow drain shall discharge to a conspicuous point of disposal to alert occupants in the event of a stoppage of the primary drain. The overflow drain line shall connect to

the drain pan at a higher level than the primary drain connection. However, the conspicuous point shall not create a hazard such as dripping over a walking surface or other areas so as to create a nuisance.

(7) **Section 403.2.1;** add an item 5 to read as follows:

5. Toilet rooms within private dwellings that contain only a water closet, lavatory, or combination thereof may be ventilated with an approved mechanical recirculating fan or similar device designed to remove odors from the air.

(8) **Section 501.3;** add an exception to read as follows:

501.3 Exhaust Discharge. The air removed by every mechanical exhaust system shall be discharged outdoors at a point where it will not cause a public nuisance and not less than the distances specified in Section 501.3.1. The air shall be discharged to a location from which it cannot again be readily drawn in by a ventilating system. Air shall not be exhausted into an attic, crawl space, or be directed onto walkways.

Exceptions:

1. Whole-house ventilation-type attic fans shall be permitted to discharge into the attic space of dwelling units having private attics.
2. Commercial cooking recirculating systems.
3. Where installed in accordance with the manufacturer's instructions and where mechanical or natural ventilation is otherwise provided in accordance with Chapter 4, listed and labeled domestic ductless range hoods shall not be required to discharge to the outdoors.
4. Toilet room exhaust ducts may terminate in a warehouse or shop area when infiltration of outside air is present.

(9) **Section 607.5.1;** change to read as follows:

607.5.1 Fire Walls. Ducts and air transfer openings permitted in fire walls in accordance with Section 705.11 of the International Building Code shall be protected with listed fire dampers installed in accordance with their listing. For hazardous exhaust systems see Section 510.1-510.9 IMC.

Sec. 5-10. - Specific amendments to the 2015 International Energy Conservation Code.

[Specific amendments:]

- (1) **Section C102/R102**; add Section C102.1.2 and R102.1.2 to read as follows:

C102.1.2 Alternative compliance. A building certified by a national, state, or local accredited energy efficiency program and determined by the Energy Systems Laboratory to be in compliance with the energy efficiency requirements of this section may, at the option of the Code Official, be considered in compliance. The United States Environmental Protection Agency's Energy Star Program certification of energy code equivalency shall be considered in compliance.

R102.1.2 Alternative compliance. A building certified by a national, state, or local accredited energy efficiency program and determined by the Energy Systems Laboratory to be in compliance with the energy efficiency requirements of this section may, at the option of the Code Official, be considered in compliance. The United States Environmental Protection Agency's Energy Star Program certification of energy code equivalency shall be considered in compliance. Regardless of the program or the path to compliance, each 1- and 2-family dwelling shall be tested for air and duct leakage as prescribed in Section R402.4 and R403.3.3 respectively.

- (2) **Section C202 and R202**; add the following definition:

PROJECTION FACTOR. The ratio of the horizontal depth of the overhang, eave or permanently attached shading device, divided by the distance measured vertically from the bottom of the fenestration glazing to the underside of the overhang, eave or permanently attached shading device.

Section R202; add the following definition:

DYNAMIC GLAZING. Any fenestration product that has the fully reversible ability to change its performance properties, including U-factor, solar heat gain coefficient (SHGC), or visible transmittance (VT).

- (3) **Table R402.1.2 INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT**; Amend by changing the WOOD FRAME WALL R-VALUE for CLIMATE ZONE 3 to read as follows:

13

- (4) **Table R402.1.4 EQUIVALENT U-FACTORS**; Amend by changing the WOOD FRAME WALL U-FACTOR for CLIMATE ZONE 3 to read as follows:

0.082

- (5) **Section R402.3.2 Glazed fenestration SHGC**; amend by adding a paragraph and table following the exception to read as follows:

Where vertical fenestration is shaded by an overhang, eave, or permanently attached shading device, the SHGC required in Table R402.1.2 shall be reduced by using the multipliers in Table R402.3.2 SHGC Multipliers for Permanent Projections.

Table R402.3.2 SHGC Multipliers for Permanent Projections ^a

Projection Factor	SHGC Multiplier (all Other Orientation)	SHGC Multiplier (North Oriented)
0 - 0.10	1.00	1.00
>0.10 – 0.20	0.91	0.95
>0.20 – 0.30	0.82	0.91
>0.30 – 0.40	0.74	0.87
>0.40 – 0.50	0.67	0.84
>0.50 – 0.60	0.61	0.81
>0.60 – 0.70	0.56	0.78
>0.70 – 0.80	0.51	0.76
>0.80 – 0.90	0.47	0.75
>0.90 – 1.00	0.44	0.73

^a North oriented means within 45 degrees of true north.

- (6) **Section R402.4.1.2 Testing;** modify the first paragraph to read as follows:

R402.4.1.2 Testing. The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 5 air changes per hour in Climate Zones 3. {Remainder of text unchanged}

- (7) **R402.4.1.2 Testing;** Add a last paragraph to read as follows:

Mandatory testing shall only be performed by individuals that are certified to perform air infiltration testing certified by national or state organizations as approved by the building official. The certified individuals must be an independent third-party entity, and may not be employed; or have any financial interest in the company that constructs the structure.

- (8) **R403.3.3 Duct Testing (Mandatory);** add a last paragraph to read as follows:

Mandatory testing shall only be performed by individuals that are certified to perform duct testing leakage testing certified by national or state organizations as approved by the building official. The certified individuals must be an independent third-party entity, and may not be employed; or have any financial interest in the company that constructs the structure.

- (9) **Section C402.2.7/R402.2;** Add Section C402.2.9 and R402.2.14 to read as follows:

Section C402.2.7/R402.2.14 Insulation installed in walls. To insure that insulation remains in place, insulation installed in walls shall be totally enclosed on

all sides consisting of framing lumber, gypsum, sheathing, wood structural panel sheathing, netting or other equivalent material approved by the building official.

- (10) **Section R405.6.2;** add the following sentence to the end of paragraph:

Acceptable performance software simulation tools may include, but are not limited to, REM Rate™, Energy Gauge and IC3. Other performance software programs accredited by RESNET BESTEST and having the ability to provide a report as outlined in R405.4.2 may also be deemed acceptable performance simulation programs and may be considered by the building official.

- (11) **TABLE R406.4 MAXIMUM ENERGY RATING INDEX;** amend to read as follows:

TABLE R406.4¹
MAXIMUM ENERGY RATING INDEX

CLIMATE ZONE	ENERGY RATING INDEX
3	65

¹ This table is effective until August 31, 2019.

TABLE R406.4²
MAXIMUM ENERGY RATING INDEX

CLIMATE ZONE	ENERGY RATING INDEX
3	63

² The table is effective from September 1, 2019 to August 31, 2022.

TABLE R406.4³
MAXIMUM ENERGY RATING INDEX

CLIMATE ZONE	ENERGY RATING INDEX
3	59

³ This table is effective on or after September 1, 2022.

Sec. 5-11. - Specific amendments to the 2015 International Property Maintenance Code.

[Specific amendments:]

- (1) Add paragraph 104.1.1 Moss Lake. The Building Official or his designated representatives shall have the authority to regulate boat docks, piers and similar structures, and to enforce the City's Moss Lake ordinances for the maintenance thereof. Inspectors are authorized to issue notices and citations for violations. Additionally, property owners acknowledge that the acceptance of permits for docks or water pumps for property at Moss Lake grants right-of-entry to the property, at any reasonable time, to any city employees tasked with enforcement and inspections of such docks and pumps. Granted that right-of-entry is limited to the performance of inspection and enforcement duties.
- (2) Add paragraph 104.1.2 Moss Lake environmental inspections. The Community Services Director, Director of Water Utilities and the City Manager and their appointed representatives shall have the authority to enter properties adjacent to Moss Lake to investigate environmental issues that could affect water quality in the lake. If access is denied by the property owner, the aid of the Sheriff's Department Environmental Officer and/or appropriate State agencies shall be requested.
- (3) Add paragraph 104.1.3 In times of economic hardship, such as a recession, the Building Official shall have the authority to reduce services to comply with budget restraints.
- (4) Add paragraph 302.1.1 Odors. Odors created by animal excretions, rubbish, garbage, offal, chemicals or other similar means shall not be created. Odors shall not be discernable past the property lines.
- (5) Paragraph 302.4 Weeds. Insert height of weeds as 12".
- (6) Add paragraph 302.4.1 Responsibility. The property owner is responsible for cutting grass and weeds between his property lines and the back of the curb or the edge of pavement. In addition, property owners abutting alleys shall be responsible for mowing and cleaning the alley to the midpoint of the alley.
- (7) Add paragraph 302.4.2 Notices. Grass and weeds may be abated by the City at any time within one year after a notice has been served on a property without having to give additional notices.
- (8) Add paragraph 302.4.3 Additional restrictions. The City may mow grass or weeds that exceeds 48" in height without first having notified the property owner. A notice shall be sent after the lot is mowed and the property owner will be billed for any costs incurred by the City.
- (9) Add 302.8.1 Junk cars. If an inoperative or junk vehicle, after the owner is notified, is moved to any other place within the City Limits of Gainesville, without first having corrected the violations, the vehicle is still in violation without having to give additional notice.

- (10) Add 302.8.2 Time limit. A vehicle is considered inoperative if it has not moved within 30 days.
- (11) Add 302.8.3 Inoperative vehicles. A vehicle is considered inoperative if it cannot start and move under its own power, if it has flat tires, or if it has been wrecked or disabled in any manner. Exception: Vehicles that are actively being worked on for repairs or restoration. Such work must be ongoing and completed within a reasonable time frame.
- (12) Add paragraph 302.8.4 Towing. If the owner does not comply within the ten-day notification period, and after the case has been heard by the Building and Standards Commission at a public nuisance abatement hearing, junk and/or inoperative vehicles shall be towed at the owner's expense. Such vehicles shall be processed in accordance with State law and shall not be returned to the owner.
- (13) Add paragraph 302.10 Exterior furniture. Furniture placed outside in yards or on porches must be weather resistant and designed for outside use.
- (14) Add paragraph 302.11 Appliances. Household appliances such as washers, dryers, stoves, refrigerators and similar appliances designed for inside use shall not be stored outside in yards or on porches. Non-operational window type air conditioners and other types of HVAC equipment shall not be stored outside or on porches.
- (15) Add paragraph 303.3. Federal Requirements. All existing swimming pools, public or private, are required to be retrofitted in accordance with the Virginia Graeme Baker Pool and Spa Act of 2007.
- (16) **Paragraph 304.14 Insect screens.** Insert dates January 1 through December 31.

Sec. 5-12. - Contractor registration. {NO CHANGES}

Sec. 5-13. – Moving structures. {NO CHANGES}

Sec. 5-14 – 5-25. – Reserved.

INTRODUCTION AND FIRST READING

INTRODUCED AND READ FOR THE FIRST TIME BEFORE THE CITY COUNCIL OF THE CITY OF GAINESVILLE ON THE 6TH DAY OF DECEMBER 2016, BY THE FOLLOWING VOTE.

6 AYES, 0 NAYS, 1 ABSENT, 0 ABSTENTIONS

ATTEST:

JO ANN MENDEZ, EXECUTIVE SECRETARY

JIM GOLDSWORTHY, MAYOR

SECOND READING, CHARTER SUSPENSION, AND ADOPTION

READ FOR THE SECOND TIME AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF GAINESVILLE ON THE 20TH DAY OF DECEMBER 2016, AT WHICH TIME THE CHARTER REQUIREMENT OF THREE READINGS WAS SUSPENDED BY THE FOLLOWING VOTE.

7 AYES, 0 NAYS, 0 ABSENT, 0 ABSTENTIONS

ATTEST:

JO ANN MENDEZ, EXECUTIVE SECRETARY

JIM GOLDSWORTHY, MAYOR