

**ORDINANCE NO. 4187**

**AN ORDINANCE OF THE CITY OF RICHARDSON, TEXAS, AMENDING THE CODE OF ORDINANCES OF THE CITY OF RICHARDSON, TEXAS, BY AMENDING CHAPTER 6, ARTICLE II, BY AMENDING SECTIONS 6-27 AND 6-28, TO ADOPT THE INTERNATIONAL BUILDING CODE, 2015 EDITION, TOGETHER WITH APPENDIX D AND AMENDMENTS THERETO; BY AMENDING SECTIONS 6-30 AND 6-31, TO ADOPT THE INTERNATIONAL RESIDENTIAL CODE FOR ONE- AND TWO-FAMILY DWELLINGS, 2015 EDITION AND AMENDMENTS THERETO; BY AMENDING SECTIONS 6-33 AND 6-34, TO ADOPT THE INTERNATIONAL ENERGY CONSERVATION CODE, 2015 EDITION; BY AMENDING SECTIONS 6-237 AND 6-238, TO ADOPT THE INTERNATIONAL FUEL GAS CODE, 2015 EDITION, WITH APPENDIX A AND AMENDMENTS THERETO; BY AMENDING SECTIONS 6-262 AND 6-263, TO ADOPT THE INTERNATIONAL MECHANICAL CODE, 2015 EDITION AND AMENDMENTS THERETO; BY AMENDING SECTIONS 6-287 AND 6-288, TO ADOPT THE INTERNATIONAL PLUMBING CODE, 2015 EDITION, TOGETHER WITH APPENDICES C AND E AND AMENDMENTS THERETO; BY AMENDING CHAPTER 6 BY ADDING ARTICLE IIA, SECTIONS 6-45 AND 6-46 TO ADOPT THE INTERNATIONAL EXISTING BUILDING CODE, 2015 EDITION, AND AMENDMENTS; PROVIDING A REPEALING CLAUSE; PROVIDING A PENALTY OF A FINE NOT TO EXCEED THE SUM OF TWO THOUSAND DOLLARS (\$2,000.000) FOR EACH OFFENSE; AND PROVIDING AN EFFECTIVE DATE.**

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF RICHARDSON, TEXAS:**

**SECTION 1.** That the Code of Ordinances of the City of Richardson, Texas, be, and the same is hereby amended by amending Chapter 6, Article II, Sections 6-27 and 6-28, in part, to read as follows:

**“Sec. 6-27. - Adopted.**

There is hereby adopted by the City of Richardson, Texas, the International Building Code, 2015 Edition, together with appendix D and amendments, a copy of which is on file in the City Secretary’s Office and made a part of this Article for all purposes, the same as if copied in full herein, with the exception of such sections thereof as are hereinafter deleted, modified or amended.”

**“Sec. 6-28. - Amendments.**

The following sections of the International Building Code, 2015 Edition, together with appendix D and amendments, are hereby amended to read as follows:

Section [A] 101.1 of the International Building Code, 2015 Edition, is amended to read as follows:

“**[A] 101.1 Title.** These regulations shall be known as the Building Code of Richardson, Texas, hereinafter referred to as “this code.””

Section [A] 101.4 of the International Building Code, 2015 Edition, is amended to read as follows:

“**[A] 101.4 Referenced Codes.** The other codes listed in Sections [A] 101.4.1 through [A] 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.”

Section [A] 101.4.4 of the International Building Code, 2015 Edition, is amended to read as follows:

“**[A] 101.4.4 Property Maintenance.** The provisions of the City of Richardson Code of Ordinances, Chapter 6, Article VIII, Property Maintenance, shall apply to existing structures and premises; equipment and facilities; light, ventilation, space heating, sanitation, life and fire safety, hazards; responsibilities of owners, operators and occupant; and occupancy of existing premises and structures. All references to the International Property Maintenance Code shall hereafter read the City of Richardson Code of Ordinances, Chapter 6, Article VIII, Property Maintenance.”

Section [A] 101.4 of the International Building Code, 2015 Edition, is amended by adding subsection [A] 101.4.8 to read as follows:

“**[A] 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.”

Section [A] 103 of the International Building Code, 2015 Edition, is amended to read as follows:

“City of Richardson Building Inspection”

Section [A] 103.1 of the International Building Code, 2015 Edition, is amended to read as follows:

**[A] 103.1 Creation of enforcement agency.** The City of Richardson Building Inspection Department is hereby created and the official in charge thereof shall be known as the building official.

Section [A] 104.2.1 of the International Building Code, 2015 Edition, is hereby deleted and is of no force and effect.

Section [A] 104.10.1 of the International Building Code, 2015 Edition, is hereby deleted and is of no force and effect.

Section [A] 105.2 of the International Building Code, 2015 Edition, is amended by amending Building, item 1 and deleting Building, items 2 through 6, to read as follows:

“Building: One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the roof area does not exceed 40 square feet.”

Section [A] 110.3.5 of the International Building Code, 2015 Edition, is hereby deleted and is of no force and effect.

Section [A] 110.6 of the International Building Code, 2015 Edition, is amended by adding subsections [A] 110.6.1 and [A] 110.6.2 to read as follows:

“**[A] 110.6.1 Reinspection.** Where any work or installation does not pass any initial inspection, the necessary corrections shall be made so as to achieve compliance with this code. The work or installation shall then be resubmitted to the code official for reinspection.”

“**[A] 110.6.2 Subsequent reinspection.** Where any work or installation does not pass a reinspection, the necessary corrections shall be made so as to achieve compliance with this code. The work or installation shall then be resubmitted to the code official for a subsequent reinspection. A fee shall be paid to the Building Inspection Department prior to each subsequent reinspection.”

Section [A] 113 of the International Building Code, 2015 Edition, is hereby deleted and is of no force and effect.

Section [A] 116 of the International Building Code, 2015 Edition, is amended by deleting sections [A] 116.2 through [A] 116.5 and by amending section [A] 116.1 to read as follows:

“**[A] 116.1 Conditions.** Structures or existing equipment which are or hereafter become unsafe, unsanitary or deficient because of inadequate means of egress facilities, inadequate light and ventilation, or which constitute a fire hazard, or are otherwise dangerous to human life or the public welfare, or which involve illegal or improper occupancy or inadequate maintenance, or which are an urban nuisance, shall be deemed an unsafe condition. Unsafe structures are hereby declared illegal and shall be abated by repair and rehabilitation or by demolition in accordance with the provisions of the City of Richardson Code of Ordinances, Chapter 6, Article VIII, Property Maintenance, as amended.”

Section 202 of the International Building Code, 2015 Edition, is amended by adding the following definition to read as follows:

**“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.”

Section [F] 403.3; exception 2 of the International Building Code, 2015 Edition, is hereby deleted and is of no force or effect.

Section [F] 403.3.2 of the International Building Code, 2015 Edition, is amended to read as follows:

**“[F] 403.3.2 Water supply to required fire pumps.** In buildings that are more than 120 feet 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.}

Section [F] 901.6.1 of the International Building Code, 2015 Edition, is amended by adding subsection 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."

Section [F] 903.1.1 of the International Building Code, 2015 Edition, is amended 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.”

Section [F] 903.2 of the International Building Code, 2015 Edition, is amended to delete the exception and add the following 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.”

Section [F] 903.2.9 of the International Building Code, 2015 Edition, is amended to add subsection [F] 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 self-service storage facilities.”

Section [F] 903.2.11 of the International Building Code, 2015 Edition, is amended to add subsection [F] 903.2.11.7 to read as follows:

“**903.2.11.7 Buildings Over 5,000 sq. ft.** An automatic sprinkler system shall be installed throughout all buildings with a building area 5,000 sq. ft. or greater and in all existing buildings that are enlarged to be 5,000 sq. ft. or greater. For the purpose of this provision, fire walls shall not define separate buildings.

**Exception:** Open parking garages in compliance with Section 406.5 of the International Building Code.”

Section [F] 903.3.1.1.1 of the International Building Code, 2015 Edition, is amended 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, machinery spaces, and hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances.
5. {Delete.}
6. {Delete.}”

Section [F] 903.3.1.2 of the International Building Code, 2015 Edition, is amended to add subsection [F] 903.3.1.2.3 to read as follows:

“**Section [F] 903.3.1.2.3 Attics and Attached Garages.** Sprinkler protection is required in attic spaces of buildings two or more stories in height, in accordance with NFPA 13 and/or NFPA 13R requirements, and attached garages.”

Section [F] 903.3.1.3 of the International Building Code, 2015 Edition, is amended to read as follows:

“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.”

Section [F] 903.3.1 of the International Building Code, 2015 Edition, is amended to add subsection [F] 903.3.1.4 to read as follows:

**“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.”

Section [F] 903.3.5 of the International Building Code, 2015 Edition, is amended to read as follows:

**“[F] 903.3.5 Water Supplies.** Water supplies for automatic sprinkler systems shall comply with this section and the standards referenced in Section 903.3.1. The potable water supply shall be protected against backflow in accordance with the requirements of this section, TCEQ Rules, and the International Plumbing Code. For connections to public waterworks systems, the water supply test used for design of fire protection systems shall be adjusted to account for seasonal and daily pressure fluctuations based on information from the water supply authority and as approved by the fire code official. Water supplies for such systems shall be provided in conformance with the respective standards; however, every water-based fire protection system shall be designed with a minimum 10 psi safety factor. Reference the International Fire Code, Section 507.4 for additional design requirements.”

Section [F] 903.4 of the International Building Code, 2015 Edition, is amended to read as follows:

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

**Exceptions:**

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

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 constant water flow between 45-60 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.”

Section [F] 903.4.2 of the International Building Code, 2015 Edition, is amended to read as follows:

**“[F] 903.4.2 Alarms.** An approved audible device, located on the exterior of the building in an approved location, shall be connected to each automatic sprinkler system. Such sprinkler waterflow alarm devices shall be activated by waterflow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system.

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. The device shall be located on the exterior of the building, in an approved location, to identify the primary emergency access to the fire sprinkler riser room, or as otherwise approved.”



Section [F] 903.4 of the International Building Code, 2015 Edition, is amended to add subsection [F] 903.4.4 as follows:

**“[F] 903.4.4 Group R-2 Riser Security.** Fire sprinkler riser room access doors of group R-2 buildings shall be secured to prevent unauthorized access.”

Section [F] 903.4 of the International Building Code, 2015 Edition, is amended to add subsection [F] 903.4.5 as follows:

**“[F] 903.4.5 Dedicated Function Fire Alarm System [“Sprinkler Waterflow and Supervisory System”] Control Panel Location.** In fire sprinklered buildings, the dedicated function fire alarm system [“sprinkler waterflow and supervisory system”] control panel shall be located at the main fire sprinkler riser room, unless otherwise approved. A remote annunciator may also be required to facilitate Fire Department response.”

Section [F] 904.3.5 of the International Building Code, 2015 Edition, is amended to read as follows:

**“[F] 904.3.5 Monitoring.** Where a building fire alarm system, or a “sprinkler waterflow and supervisory system”, is installed, automatic fire-extinguishing systems shall be monitored by the building fire alarm system, or “sprinkler waterflow and supervisory system.”

Section [F] 905.2 of the International Building Code, 2015 Edition, is amended 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.”

Section [F] 905.3 of the International Building Code, 2015 Edition, is amended to add subsection [F] 905.3.9 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 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.”

Section [F] 905.4 of the International Building Code, 2015 Edition, is amended to read as follows:

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

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

Section [F] 905.4 of the International Building Code, 2015 Edition, is amended to add subsection [F] 905.4.3 to read as follows:

**“[F] 905.4.3 Identification and clearance.** A minimum 36-inch clear width shall be provided in front of standpipe hose connections, and shall extend from the centered

connection to the aisle or driveway from which it can be accessed. The clear width shall be permanently marked in an approved manner, by red chevron on contrasting background on the finished floor surface. An approved method to prevent obstruction of the marked area shall be provided. Vehicle impact protection complying with The International Fire Code, Section 312 shall be provided in garages and other locations where vehicles are operated.

Standpipe hose valve connection locations shall be clearly identified in the following manner:

1. When the connection is on or adjacent to a column, an 18-inch red band shall mark all visible sides of the column. The band shall be as high as practical, but no more than 10-feet above the finished floor; or,
2. When the connection is on a wall the pipe shall be painted red from floor to ceiling, or minimum 10-feet high, whichever is less; or,
3. Where the fire code official determines that additional or substitute markings are necessary to clearly indicate standpipe hose valve connection locations, the fire code official may require additional signs and/or markings.

**Exception:** Standpipe hose valve connections in stairs and in interior corridors of commercial and residential occupancies, when approved by the fire code official.”

Section [F] 905.9 of the International Building Code, 2015 Edition, is amended to read as follows:

“**[F] 905.9 Valve supervision.** Valves controlling water supplies shall be supervised in the open position so that a change in the normal position of the valve will generate a supervisory signal at the supervising station required by Section [F] 903.4. Where a fire alarm system is provided, a signal shall be transmitted to the control unit.

**Exceptions:**

1. Valves to underground key or hub valves in roadway boxes provided by the municipality or public utility do not require supervision.
2. Valves locked in the normal position and inspected as provided in this code in buildings not equipped with a fire alarm system.

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 constant water flow between 45-60 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.”

Section [F] 907.1 of the International Building Code, 2015 Edition, is amended to add Subsections [F] 907.1.4 and [F] 907.1.5 to read as follows:

“**[F] 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.”

“**[F] 907.1.5 Fire Alarm Control Panel Location.** In fire sprinklered buildings, the fire alarm control panel shall be located at the main fire sprinkler riser room, unless otherwise approved. A remote annunciator may also be required to facilitate Fire Department response.”

Section [F] 907.2.1 of the International Building Code, 2015 Edition, is amended 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 [F] 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 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:** Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section [F] 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.

Activation of fire alarm notification appliances shall stop any conflicting or confusing sounds and visual distractions.”

Section [F] 907.2.3 of the International Building Code, 2015 Edition, is amended 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 [F] 907.5.2.2 and installed in accordance with Section [F] 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 an occupant load of less than 30 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 2½ or less years of age, see Section [F] 907.2.6.)
2. Emergency voice/alarm communication systems meeting the requirements of Section [F] 907.5.2.2 and installed in accordance with Section [F] 907.6 shall not be required in Group E occupancies with occupant loads of 100 or less, provided that activation of the manual fire alarm system initiates an approved occupant notification signal in accordance with Section [F] 907.5.
3. Manual fire alarm boxes are not required in Group E occupancies where all of the following apply:
  - 3.1. Interior corridors are protected by smoke detectors.
  - 3.2. Auditoriums, cafeterias, gymnasiums and similar areas are protected by heat detectors or other approved detection devices.
  - 3.3. Shops and laboratories involving dusts or vapors are protected by heat detectors or other approved detection devices.
4. Manual fire alarm boxes shall not be required in Group E occupancies where all of the following apply:
  - 4.1. The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section [F] 903.3.1.1.
  - 4.2. The emergency voice/alarm communication system will activate on sprinkler water flow.
  - 4.3. Manual activation is provided from a normally occupied location.”

Section [F] 907.4.2 of the International Building Code, 2015 Edition, is amended to add Subsection [F] 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.”

Section [F] 907.5.2.3 of the International Building Code, 2015 Edition, is amended to read as follows:

“**[F] 907.5.2.3 Visible alarms.** Visible alarm notification appliances shall be provided in accordance with Sections [F] 907.5.2.3.1 through [F] 907.5.2.3.3.

**Exceptions:**

1. When approved by the fire code official, visible alarm notification appliances are not required in alterations, except where an existing fire alarm system is upgraded or replaced, or a new fire alarm system is installed.
2. Visible alarm notification appliances shall not be required in exits as defined in Chapter 2.
3. Visible alarm notification appliances shall not be required in elevator cars.
4. Visual alarm notification appliances are not required in critical care areas of Group I-2 Condition 2 occupancies that are in compliance with Section [F] 907.2.6, Exception 2.”

Section [F] 907.6.1 of the International Building Code, 2015 Edition, is amended to add Subsection [F] 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.”

Section [F] 907.6.3 of the International Building Code, 2015 Edition, is amended to delete Exceptions 1, 2, 3 and 4.

Section [F] 907.6.6 of the International Building Code, 2015 Edition, is amended to read as follows:

**“[F] 907.6.6 Monitoring.** Fire alarm systems required by this chapter or by the International Fire Code shall be monitored by an approved supervising station in accordance with NFPA 72. See [F] 907.6.3 for the required information transmitted to the supervising station.”

**Exception:** Monitoring by a supervising station is not required for:

1. Single- and multiple-station smoke alarms required by Section [F] 907.2.11.
2. Smoke detectors in Group I-3 occupancies.
3. Automatic sprinkler systems in one- and two-family dwellings.

Section [F] 910.3 of the International Building Code, 2015 Edition, is amended add Subsection [F] 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 [F] 910.3.2.1 through [F] 910.3.2.3.”

Section [F] 910.3.4 of the International Building Code, 2015 Edition, is amended add Subsections [F] 910.3.4.1 and [F] 910.3.4.2 to read as follows:

“**[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 [F] 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.”

Section [F] 910.4.3.1 of the International Building Code, 2015 Edition, is amended 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 m<sup>2</sup> per 0.4719 m<sup>3</sup>/s) of smoke exhaust.”

Section [F] 912.2 of the International Building Code, 2015 Edition, is amended to add subsection [F] 912.2.3 to read as follows:

“**[F] 912.2.3 Hydrant Distance.** An approved fire hydrant shall be located between 35 to 135 feet of the fire department connection, measured along an approved route [as the fire hose is laid] along an unobstructed path.”

Section [F] 913.2.1 of the International Building Code, 2015 Edition, is amended to add subsection [F] 913.2.1.1 to read as follows:

“**[F] 913.2.1.1 Fire Pump Room Access.** 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 The International Fire Code, 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 The International Fire Code, Section 506.1.”

Section 1006.2.2 of the International Building Code, 2015 Edition, is amended to add subsection 1006.2.2.6 to read as follows:

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

Section 1009.1 of the International Building Code, 2015 Edition, is amended to add Exception 4 to read as follows:

**“Exceptions:**

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

Section 1010.1.9 of the International Building Code, 2015 Edition, is amended to add 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}.”

Section 1029.1.1.1 of the International Building Code, 2015 Edition, is hereby deleted and is of no force and effect.

Section 1101.1 of the International Building Code, 2015 Edition, is amended to add an Exception to read 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.”



Section 1203.1 of the International Building Code, 2015 Edition, is amended 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 less than 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.”

Table 1505.1; of the International Building Code, 2015 Edition, is amended by deleting footnotes b and c.

Section 1505.7 of the International Building Code, 2015 Edition, is hereby deleted and is of no force and effect.

Section 1907.1 of the International Building Code, 2015 Edition, is amended by amending the first sentence to read as follows:

**“1907.1 General.** The thickness of concrete floor slabs supported directly on the ground shall not be less than 4 inches unless designed by a registered professional engineer.”

Section 3005.4 of the International Building Code, 2015 Edition, is amended to read as follows:

“Elevator machine rooms, control rooms, control spaces and machinery spaces shall be enclosed with firebarriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both. [Remainder unchanged]”

Section 3005 of the International Building Code, 2015 Edition, is amended by adding Section 3005.7 and subsections 3005.7.1 through 3005.7.4 to read 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.”

Section 3106 of the International Building Code, 2015 Edition, is hereby deleted and is of no force and effect.

Section 3107 of the International Building Code, 2015 Edition, is hereby deleted and is of no force and effect.

Section 3109 of the International Building Code, 2015 Edition, is hereby deleted and is of no force and effect.

**SECTION 2.** That the Code of Ordinances of the City of Richardson, Texas, be, and the same is hereby amended by amending Chapter 6, Article II, Sections 6-30 and 6-31, in part, to read as follows:

**“Sec. 6-30. - Adopted.**

There is hereby adopted by the City of Richardson, Texas, the International Residential Code for One- and Two-Family Dwellings, 2015 Edition and amendments, a copy of which is on file in the City Secretary's Office and made a part of this Article for all purposes, the same as if copied in full herein, with the exception of such sections thereof as are hereinafter deleted, modified or amended.”

**“Sec. 6-31. - Amendments.**

The following sections of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition and amendments, are hereby amended to read as follows:

Section R101.1 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is amended to read as follows:

**“R101.1 Title.** These provisions shall be known as the Richardson One- and Two-Family Dwelling Building Code, and shall be cited as such and will be referred to herein as “this code”.

Section R102.4 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is amended 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.”

Section R102.7 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is amended to read as follows:

**“R102.7 Existing Structures.** The legal occupancy of any structure existing on the date of adoption of this code shall be permitted to continue without change, except as in specifically covered in this code, the City of Richardson Code of Ordinances, Chapter 6, Article VIII Property Maintenance or the International Fire Code, or as deemed necessary by the building official for the general safety and welfare of the occupants and the public.”

Section R104.10.1 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is hereby deleted and is of no force and effect.

Section R105.1 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is amended to read as follows:

**“R105.1 Required.** Any owner or authorized agent who intends to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure; or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system; the installation of which is regulated by this code, or to install concrete pavement, or to cause any such work to be done, shall first make application to the building official for a permit, shall comply with applicable state and local rules and regulations concerning licensing and registration, and obtain the required permit.”

Section R105.2 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is amended by amending Building, items 1 and 10, and deleting Building, items 2 through 5, to read as follows:

**“Building:**

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 40 square feet (3.71 mm).

10. Decks not more than 30 inches above grade.

Section R105.3.1.1 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is hereby deleted and is of no force and effect.

Section R105.5 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is amended to read as follows:

**“R105.5 Expiration.** Every permit issued shall become invalid unless the work authorized by such permit is commenced within 90 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 90 days after the time the work is commenced. For work commenced under a building permit for fire repair/reconstruction, the addition of square footage to a residence, or similar type construction which involves the potential for a building being left open to the elements, the exterior building envelope shall be completed within 90 days of the start of construction. The building official is authorized to grant, in writing, one or more extensions of time, for periods not more than 60 days each. The extension shall be requested in writing and justifiable cause demonstrated.”

Section R105.5 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is amended by adding subsection R105.5.1 to read as follows:

**“R105.5.1 New permits required.** A new permit must be obtained for any construction which is not completed in the allowable time period or extended as provided above. A new fee shall be required in connection with issuance of a new permit. The new fee shall be one-half the amount required for the original permit for such work, provided no changes have been made or will be made in the original plans and specifications for such work. A new permit must be obtained for any construction which has been suspended or abandoned for a period of more than 60 days. The permittee shall make a new application, resubmit plans for review, and pay a new full permit fee to resume work.”

Section R106.1.4 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is hereby deleted and is of no force and effect.

Section R109.4 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is amended by adding subsections R109.4.1 and R109.4.2 to read as follows:

**“R109.4.1 Reinspection.** Where any work or installation does not pass any initial inspection, the necessary corrections shall be made so as to achieve compliance with this code. The work or installation shall then be resubmitted to the code official for reinspection.

**R109.4.2 Subsequent reinspection.** Where any work or installation does not pass a reinspection, the necessary corrections shall be made so as to achieve compliance with

this code. The work or installation shall then be resubmitted to the code officer for a subsequent reinspection. A fee shall be paid to the Building Inspection Department prior to each subsequent reinspection.”

Section R110 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is hereby deleted and is of no force and effect.

Section R112 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is hereby deleted and is of no force and effect.

Section R202 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is amended by adding the following definition:

**“Exterior Building Envelope.** The exterior boundaries of a building, including walls, foundation and basement walls, roof, fascia, and soffit area, and any fenestration.”

Table R301.2 of Section R301 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is amended to read as follows:

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

Section R302.5.1 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is amended 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.”

Section R309.2 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is amended by deleting the exception.

Section R313 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is amended by deleting subsections R313.1, R313.1, R313.2, and R313.2.1.

Section R322 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is hereby deleted and is of no force and effect.

Section R326 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is hereby deleted and is of no force and effect

Section R403.1 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is amended by adding a sentence to read as follows:

“Support of one story detached accessory structures on pressure preservatively treated wood shall be permitted, provided the floor area does not exceed 150 square feet (13.9 m) and the structure is properly anchored to accommodate all loads according to Section R301.”

Section R602.6.1 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is amended to read as follows:

“**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}.”

Section R703.8.4.1 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is amended by adding 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
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.”

Section R902.1 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is amended to read as follows:

“**R902.1 Roofing covering materials.** Roofs shall be covered with materials as set forth in Sections R904 and R905. Class A, B, or C roofing shall be installed. Class A, B and C roofing required by this section to be listed shall be tested in accordance with UL 790 or ASTM E 108. {remainder unchanged}”

Section R904 of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is amended by adding subsection R904.5 to read as follows:

**“R904.5 Fire Classification.** The minimum roof coverings installed on buildings shall be Class C. Unclassified wood shingles or shakes shall be permitted for repairs on existing unclassified wood shingle or shake roof coverings, if not more than 25 percent of the roof covering is replaced in any 12-month period.”

Chapter 11 – Energy Efficiency of the International Residential Code for One- and Two-Family Dwellings, 2015 Edition, is hereby deleted and replaced 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 2015 International Energy Conservation Code.”

**SECTION 3.** That Chapter 6, Article II of the Code of Ordinances of the City of Richardson, Texas, be, and the same is hereby amended in part by amending Sections 6-33 and 6-34 to read as follows:

**“Sec. 6-33. - Adopted.**

There is hereby adopted by the City of Richardson, Texas, the International Energy Conservation Code, 2015 Edition and amendments, a copy of which is on file in the City Secretary’s Office and made a part of this article for all purposes, the same as if copied in full herein, with the exception of such sections thereof as are hereinafter deleted, modified or amended.”

**“Sec. 6-34. - Amendments.**

The following sections of the International Energy Conservation Code, 2015 Edition and amendments, are hereby amended to read as follows:

Section C101.1 of the International Energy Conservation Code, 2015 Edition, is amended to read as follows:

**“C101.1 Title.** These provisions shall be known as the Richardson Energy Conservation Code, and shall be cited as such and will be referred to herein as “this code”.

Section R101.1 of the International Energy Conservation Code, 2015 Edition, is amended to read as follows:

**“R101.1 Title.** These provisions shall be known as the Richardson Energy Conservation Code, and shall be cited as such and will be referred to herein as “this code.””

Section C102.1 of the International Energy Conservation Code, 2015 Edition, is amended by adding subsection C102.1.2 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.”

Section R102.1 of the International Energy Conservation Code, 2015 Edition, is amended by adding subsection R102.1.2 to read as follows:

**“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.”

Section C202 of the International Energy Conservation Code, 2015 Edition, is amended by adding 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 of the International Energy Conservation Code, 2015 Edition, is amended by adding 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 of the International Energy Conservation Code, 2015 Edition, is amended by adding 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).”

Section C402.2 of the International Energy Conservation Code, 2015 Edition, is amended by adding subsection C402.2.7 to read as follows:

**“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.”

Section R402.2 of the International Energy Conservation Code, 2015 Edition, is amended by adding subsection R402.2.14 to read as follows:

**“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.”

Section R402.3.2 of the International Energy Conservation Code, 2015 Edition, is amended 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 <sup>a</sup>**

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

<sup>a</sup> North oriented means within 45 degrees of true north.

Section R402.4.1.2 of the International Energy Conservation Code, 2015 Edition, is amended by adding a final 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.”

Section R403.3.3 of the International Energy Conservation Code, 2015 Edition, is amended by adding a final 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.”

Section R405.6.2 of the International Energy Conservation Code, 2015 Edition, is amended by adding the following sentence to the end of the paragraph to read as follows:

“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 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.”

Section R406.4 of the International Energy Conservation Code, 2015 Edition, is amended to read as follows:

**TABLE R406.4<sup>1</sup>**  
**MAXIMUM ENERGY RATING INDEX**

CLIMATE ZONE	ENERGY RATING INDEX
3	65

<sup>1</sup> This table is effective until August 31, 2019.

**TABLE R406.4<sup>2</sup>**  
**MAXIMUM ENERGY RATING INDEX**

CLIMATE ZONE	ENERGY RATING INDEX
3	63

<sup>2</sup> The table is effective from September 1, 2019 to August 31, 2022.

**TABLE R406.4<sup>3</sup>**  
**MAXIMUM ENERGY RATING INDEX**

CLIMATE ZONE	ENERGY RATING INDEX
3	59

<sup>3</sup> This table is effective on or after September 1, 2022.

**SECTION 4.** That the Code of Ordinances of the City of Richardson, Texas, be, and the same is hereby amended by amending Chapter 6, Article V, Sections 6-237 and 6-238 in part to read as follows:

**“Sec. 6-237. - Adopted.**

There is hereby adopted by the City of Richardson, Texas, the International Fuel Gas Code, 2015 Edition, together with Appendix A, and amendments, a copy of which is on file in the City Secretary’s Office and made a part of this Article for all purposes, the same as if copied in full herein, with the exception of such sections thereof as are hereinafter deleted, modified or amended.”

**“Sec. 6-238. - Amendments.**

The following sections of the International Fuel Gas Code, 2015 Edition, are hereby amended to read as follows:

Section 102.5 of the International Fuel Gas Code, 2015 Edition, is amended by adding subsection 102.5.1 to read as follows:

**“102.5.1 Change in tenancy or ownership.** It shall be unlawful to make a change in tenancy or ownership of any existing building or lease space without first making application for and obtaining approval for a certificate of occupancy.”

Section 107.3 of the International Fuel Gas Code, 2015 Edition, is amended by adding subsection 107.3.4 to read as follows:

**“107.3.4 Subsequent reinspection and testing.** Where any work or installation does not pass a retest or reinspection, the necessary corrections shall be made so as to achieve compliance with this code. The work or installation shall then be resubmitted to the code official for a subsequent reinspection. A fee shall be paid to the Building Inspection Department prior to each subsequent reinspection.”

**SECTION 5.** That the Code of Ordinances of the City of Richardson, Texas, be, and the same is hereby amended by amending Chapter 6, Article VI, Sections 6-262 and 6-263 in part to read as follows:

**“Sec. 6-262. - Adopted.**

There is hereby adopted by the City of Richardson, Texas, the International Mechanical Code, 2015 Edition, a copy of which is on file in the City Secretary’s Office and made a part of

this Article for all purposes, the same as if copied in full herein, with the exception of such sections thereof as are hereinafter deleted, modified or amended.”

**“Sec. 6-263. - Amendments.**

The following sections of the International Mechanical Code, 2015 Edition, are hereby amended to read as follows:

Section 102.5 of the International Mechanical Code, 2015 Edition, is amended by adding subsection 102.5.1 to read as follows:

**“102.5.1 Change in tenancy or ownership.** It shall be unlawful to make a change in tenancy or ownership of any existing building or lease space without first making application for and obtaining approval for a certificate of occupancy.”

Section 107.3 of the International Mechanical Code, 2015 Edition, is amended by adding subsection 107.3.4 to read as follows:

**“107.3.4 Subsequent reinspection and testing.** Where any work or installation does not pass a retest or reinspection, the necessary corrections shall be made so as to achieve compliance with this code. The work or installation shall then be resubmitted to the code official for a subsequent reinspection. A fee shall be paid to the Building Inspection Department prior to each subsequent reinspection.”

**SECTION 6.** That the Code of Ordinances of the City of Richardson, Texas, be, and the same is hereby amended by amending Chapter 6, Article VII, Sections 6-287 and 6-288 in part to read as follows:

**“Sec. 6-287. - Adopted.**

There is hereby adopted by the City of Richardson, Texas, the International Plumbing Code, 2015 Edition, together with Appendices C and E and amendments, a copy of which is on file in the City Secretary’s Office and made a part of this Article for all purposes, the same as if copied in full herein, with the exception of such sections thereof, as are hereinafter deleted, modified or amended.”

**“Sec. 6-288. - Amendments.**

The following sections of the International Plumbing Code, 2015 Edition, together with Appendices C and E, and amendments, are hereby amended to read as follows:

Section 102.5 of the International Plumbing Code, 2015 Edition, is amended by adding subsection 102.5.1 to read as follows:

**“102.5.1 Change in tenancy or ownership.** It shall be unlawful to make a change in tenancy or ownership of any existing building or lease space without first making application for and obtaining approval for a certificate of occupancy.”

Section 107.4 of the International Plumbing Code, 2015 Edition, is amended by adding subsection 107.4.4 to read as follows:

**“107.4.4 Subsequent reinspection and testing.** Where any work or installation does not pass a retest or reinspection, the necessary corrections shall be made so as to achieve compliance with this code. The work or installation shall then be resubmitted to the code official for a subsequent reinspection. A fee shall be paid to the Building Inspection Department prior to each subsequent reinspection.”

Section 305.4.1 of the International Plumbing Code, 2015 Edition, is amended to read as follows:

**“305.4.1 Sewer depth.** Building sewers shall be a minimum of 12 inches (305 mm) below grade.”

Section 312.10 of the International Plumbing Code, 2015 Edition, is amended by deleting subsections 312.10.1 and 312.10.2 and amending 312.10 to read as follows:

**“312.10 Inspection and testing of backflow prevention assemblies.** Inspection and testing shall comply with the requirements set forth by the Texas Commission on Environmental Quality.”

Section 502 of the International Plumbing Code, 2015 Edition, is amended by adding subsection 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, access shall be provided by a stairway or permanent ladder fastened to the building.”

Section 606.1 of the International Plumbing Code, 2015 Edition, is amended by deleting items 4 and 5 and renumbering the remaining items.

Section 714 of the International Plumbing Code, 2015 Edition, is amended by amending section 714 and 714.1 to read as follows:

#### **“SECTION 714 ENGINEERED DRAINAGE DESIGN**

**“714.1 Design of drainage system.** The sizing requirements for plumbing drainage systems shall be determined by approved design methods.”

Section 903.1 of the International Plumbing Code, 2015 Edition, is amended to read as follows:

**“903.1 Roof extension.** All open vent pipes that extend through a roof shall be terminated at least 6 inches (152 mm) above the roof (remainder of section unchanged).”

Section 1106.1 of the International Plumbing Code, 2015 Edition, is amended 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 the 100-year hourly rainfall rate of 5 inches.”

**SECTION 7.** That the Code of Ordinances of the City of Richardson, Texas, be and the same is hereby amended by amending Chapter 6 in part to add Article IIA, Sections 6-45 and 6-46, to read as follows:

**“ARTICLE IIA. – INTERNATIONAL EXISTING BUILDING CODE, 2015 EDITION**

**Sec. 6-45. - Adopted.**

There is hereby adopted by the City of Richardson, Texas, the International Existing Building Code, 2015 Edition and amendments, a copy of which is on file in the City Secretary’s Office and made a part of this article for all purposes, the same as if copied in full herein, with the exception of such sections thereof as are hereinafter deleted, modified or amended.

**Sec. 6-46. - Amendments.**

The following sections of the International Existing Building Code, 2015 Edition and amendments, are hereby amended to read as follows:

Section [A] 102.4 of the International Existing Building Code, 2015 Edition, is amended to read as follows:

**“[A] 102.4 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 102.4.1 and 102.4.2.”

Section 202 definition of Existing Building of the International Existing Building Code, 2015 Edition, is amended to read as follows:

**“Existing Building** - A building, structure, or space, with an approved final inspection issued under a code edition which is at least 2 published code editions preceding the currently adopted building code; or a change of occupancy.”

Section 405.1.3 of the International Existing Building Code, 2015 Edition, is hereby deleted and is of no force and effect.

Section 406.2 of the International Existing Building Code, 2015 Edition, is amended to read as follows:

**“406.2 Replacement window opening control devices.** In Group R-2 or R-3 buildings containing dwelling units, window opening control devices complying with ASTM F 2090 shall be installed where an existing window is replaced and where all of the following apply to the replacement window . . . {Remainder Unchanged}

The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the minimum net clear opening area of the window unit to less than the area required by Section 1030.2 of the International Building Code.”

Section 407.1 of the International Existing Building Code, 2015 Edition, is amended by adding subsection 407.1.2 to read as follows:

**“407.1.2 Change in tenancy or ownership.** It shall be unlawful to make a change in tenancy or ownership of an existing building or lease space without first making application for and obtaining approval for a certificate of occupancy.”

Section 408.3 of the International Existing Building Code, 2015 Edition, is hereby deleted and is of no force and effect.

Section 410.1 of the International Existing Building Code, 2015 Edition, is amended to add an 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.”

Section 410.4.2 the International Existing Building Code, 2015 Edition, is amended to add number 7 as follows:

**“7.** At least one accessible family or assisted use toilet room shall be provided in accordance with Chapter 11 of the International Building Code.”

Section 601.3 of the International Existing Building Code, 2015 Edition, is hereby deleted and is of no force and effect.

Section 606.2.4 of the International Existing Building Code, 2015 Edition, is hereby deleted and is of no force and effect.

Section 607.1 of the International Existing Building Code, 2015 Edition, is amended to read as follows:

**“607.1 Material.** Existing electrical wiring and equipment undergoing repair shall be allowed to be repaired or replaced with like material, in accordance with the requirements of NFPA 70.”

Section 701.3 of the International Existing Building Code, 2015 Edition, is hereby deleted and is of no force and effect.

Section 702.6 of the International Existing Building Code, 2015 Edition, is amended to read as follows:

**“702.6 Materials and methods.** All new work shall comply with the materials and methods requirements in the International Building Code, International Energy Conservation Code, International Mechanical Code, National Electrical Code, and International Plumbing Code, as applicable, that specify material standards, detail of installation and connection, joints, penetrations, and continuity of any element, component, or system in the building.”

Section 803.5.1 of the International Existing Building Code, 2015 Edition, is amended to read as follows:

**“803.5.1 Minimum requirement.** Every portion of open-sided walking surfaces, including mezzanines, equipment platforms, aisles, stairs, ramps and landings that are not provided with guards, or those in which the existing guards are judged to be in danger of collapsing, shall be provided with guards.”

Section 804.1 of the International Existing Building Code, 2015 Edition, is amended to read as follows:

**“804.1** For the purpose of fire sprinkler protection and fire alarm requirements included in this section, the work area shall be extended to include at least the entire tenant space or spaces bounded by walls capable of resisting the passage of smoke containing the subject work area, and if the work area includes a corridor, hallway, or other exit access, then such corridor, hallway, or other exit access shall be protected in its entirety on that particular floor level.”

Section 804.2.5 of the International Existing Building Code, 2015 Edition, is amended to read as follows:

**“804.2.5 Exception:** Supervision is not required where the Fire Code does not require such for new construction.”



Section 804.3 of the International Existing Building Code, 2015 Edition, is amended to read as follows:

**“804.3 Standpipes.** Refer to Section 1103.6 of the Fire Code for retroactive standpipe requirements.”

Section 805.2; Exception 1 of the International Existing Building Code, 2015 Edition, is hereby deleted and is of no force and effect.

Section 805.3.1.2 of the International Existing Building Code, 2015 Edition, is amended to read as follows:

**“805.3.1.2 Fire Escapes required.** For other than Group I-2, where more than one exit is required an existing constructed fire escape complying with section 805.3.1.2.1 shall be accepted as providing one of the required means of egress.”

Section 805.3.1.2.1 of the International Existing Building Code, 2015 Edition, is amended and Exception 3 is deleted to read as follows:

**“805.3.1.2.1 Fire Escape access and details.**

2. Access to a fire escape shall be through a door {remainder unchanged}
3. [Deleted]
5. In all building of Group E occupancy up to and including the 12th grade, building of Group I occupancy, boarding houses, and childcare centers, ladders of any type are prohibited on fire escapes used as a required means of egress.”

Section 805.3.1.2.2 of the International Existing Building Code, 2015 Edition, is hereby deleted and is of no force and effect.

Section 805.3.1.2.3 of the International Existing Building Code, 2015 Edition, is hereby deleted and is of no force and effect.

Section 806.2 of the International Existing Building Code, 2015 Edition, is amended to add the Exception to read 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.”

Section 904.1 of the International Existing Building Code, 2015 Edition, is amended to read as follows:

**“904.1.1 High-rise buildings.** An automatic sprinkler system shall be provided in work areas of high-rise buildings.”

Section 1103.5 of the International Existing Building Code, 2015 Edition, is hereby deleted and is of no force and effect.

Section 1201.4 of the International Existing Building Code, 2015 Edition, is hereby deleted and is of no force and effect.

Section 1302.7 of the International Existing Building Code, 2015 Edition, is hereby deleted and is of no force and effect.

Section 1401.2 of the International Existing Building Code, 2015 Edition, is amended to read as follows:

**“1401.2 Applicability.** Structures existing prior to the date of an approved final inspection issued under a code edition which is at least two published code editions preceding the currently adopted building code; or a change of occupancy, {rest of section un-changed}.”

Section 1401.3.2 of the International Existing Building Code, 2015 Edition, is amended to read as follows:

**“1401.3.2 Compliance with other codes.** Buildings that are evaluated in accordance with this section shall comply with the International Fire Code.”

Chapter 16 – Referenced Standards of the International Existing Building Code, 2015 Edition, is amended to read as follows:

**“IECC - Edition as adopted by the State of Texas International Energy Conservation Code ®.....301.2, 702.6, 708.1, 811.1, 908.1”**

**SECTION 8.** That all provisions of the Code of Ordinances of the City of Richardson, Texas, in conflict with the provisions of this Ordinance be, and the same are hereby, repealed and all other provisions not in conflict with the provisions of this Ordinance shall remain in full force and effect.

**SECTION 9.** That an offense committed before the effective date of this ordinance is governed by the prior law and provisions of the Code of Ordinances, as amended, in effect when the offense was committed and the former law is continued in effect for this purpose.

**SECTION 10.** That should any word, phrase, section, or portion of this Ordinance or of the Code of Ordinances, as amended hereby, be held to be void or unconstitutional, the same

shall not affect the validity of the remaining portions of said ordinance or the Code of Ordinances, as amended hereby, which shall remain in full force and effect.

**SECTION 11.** That any person, firm or corporation violating any of the provisions or terms of this Ordinance shall be subject to the same penalty as provided for in the Code of Ordinances of the City of Richardson, as heretofore amended, and upon conviction shall be punished by a fine not to exceed the sum of Two Thousand Dollars (\$2,000.00) for each offense; and each and every day such violation shall continue shall be deemed to constitute a separate offense.

**SECTION 12.** That this Ordinance shall become effective from and after its passage and the publication of the caption, as the law and charter in such cases provide.

**DULY PASSED** by the City Council of the City of Richardson, Texas, on the 10th day of October, 2016.

APPROVED:

\_\_\_\_\_  
MAYOR

APPROVED AS TO FORM:

CORRECTLY ENROLLED:

\_\_\_\_\_  
CITY ATTORNEY  
(PGS:10-4-16:TM 79891)

\_\_\_\_\_  
CITY SECRETARY