

TOWN OF FLOWER MOUND, TEXAS

ORDINANCE NO. 31-19

AN ORDINANCE OF THE TOWN OF FLOWER MOUND, TEXAS, AMENDING CHAPTER 14, "BUILDINGS AND BUILDING REGULATIONS," ARTICLE XIV, OF THE CODE OF ORDINANCES OF THE TOWN OF FLOWER MOUND, TO PROVIDE FOR ADOPTION OF THE *INTERNATIONAL RESIDENTIAL CODE*, 2018 EDITION, AND LOCAL AMENDMENTS THERETO; PROVIDING THAT THE BOARD OF ADJUSTMENT SHALL BE THE BOARD OF APPEALS FOR PURPOSES SET OUT HEREIN; REPEALING ALL CONFLICTING ORDINANCES; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A PENALTY; PROVIDING FOR PUBLICATION; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the International Code Council (ICC) has developed a set of comprehensive and coordinated national model construction codes (known as the "International Codes"); and

WHEREAS, the *International Residential Code* has been prepared by the ICC, and in addition to review by the North Central Texas Council of Governments (NCTCOG), has been reviewed by Town staff; and

WHEREAS, the current residential code in the Town is the 2015 edition of the *International Residential Code*, and the Town's residential building code should be updated to the most current published building code available; and

WHEREAS, the 77th Texas Legislature passed Senate Bill 365 (SB 365) in 2001 adopting the *International Residential Code* for municipalities of the state; and

WHEREAS, SB 365 provides that municipalities may adopt local amendments to the *International Residential Code*; and

WHEREAS, the 2018 edition of the *International Residential Code* is the most current published code available that addresses the general design and construction aspects of all residential buildings in the Town; and

WHEREAS, the Town Council of the Town of Flower Mound has determined that it is in the best interest of the citizens of the Town of Flower Mound to update and adopt the 2018 edition of the *International Residential Code* and has determined that this will promote the health, safety and general welfare of the citizens of the Town of Flower Mound and the general public;

WHEREAS, the Town Council of the Town of Flower Mound further desires to adopt certain local amendments to such Code reflecting the unique needs of the Town of Flower Mound;

NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF FLOWER MOUND, TEXAS, THAT:

SECTION 1

All of the above premises are found to be true and correct factual and legislative determinations of the Town of Flower Mound and are hereby approved and incorporated into the body of this Ordinance as if copied in their entirety.

SECTION 2

From and after the effective date of this Ordinance, Section 14-571 of the Code of Ordinances of the Town of Flower Mound, Texas, entitled "International Residential Code Adopted," is hereby deleted and replaced with the following provision:

"Sec. 14-571. International Residential Code Adopted.

The *International Residential Code*, 2018 edition, including Appendix H and Appendix Q, a copy of which is on file in the office of the town secretary, is hereby adopted and designated as the residential building code of the town, the same as though these provisions of the *International Residential Code*, 2018 edition, were copied at length in this section; subject to the deletions, amendments, and additions provided in section 14-572."

SECTION 3

From and after the effective date of this Ordinance, Section 14-572 of the Code of Ordinances of the Town of Flower Mound, Texas, entitled "Local Amendments to International Residential Code," is hereby deleted and replaced with the following provision:

"Sec. 14-572. Local Amendments to International Residential Code

The *International Residential Code*, 2018 edition, is hereby amended by amending only the enumerated sections and provisions, as follows, and all sections and provisions not expressly amended or deleted shall remain in full force and effect:

- (a) Section R101.1 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section R101.1. Title. These provisions shall be known as the *Residential Code for One- and Two-family dwellings* of the Town of Flower Mound and shall be cited as such and will be referred to herein as "this code."

- (b) Section R102.4 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section 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 Section 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.

- (c) Section R104.10.1 of the *International Residential Code*, 2018 edition, is hereby deleted in its entirety as follows:

Section R104.10.1. Flood hazard area. Deleted.

- (d) Section R105.1 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section R105.1. Required. Any owner, contractor, 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 causes any such work to be performed, shall first make application to the *building official* and obtain the required *permits*.

It shall be the responsibility of any person, firm, or corporation, upon submittal of an application for a building permit for work regulated by this code, to register as a contractor with the town. This form must be submitted with the *permit* application. Said registration shall be upon forms supplied by the *building official* and shall become null and void on December 31st of each year. An appropriate fee for registration shall be assessed in accordance with the provisions of Appendix A of the Code of Ordinances of the Town of Flower Mound.

Exception: Any residential property owner who, at his legal residence, desires to personally make or perform any installation, alteration, repair, replacement, or remodel regulated by this code shall be exempt from paying a registration fee. For this section, *legal residence* shall be defined as property for which a property owner shows proof of a homestead exemption.

Any contractor registration regulated by this code may be placed on hold or suspended by the *building official*, preventing any additional permits being issued, if it is determined by the *building official* that corrective action is needed for compliance with the requirements of Section 18-32 of the Code of Ordinances of the Town of Flower Mound. If any contractor registration regulated by this code is suspended, the procedures outlined in Chapter 18, Article II, of the Code of Ordinances of the Town of Flower Mound shall apply. Any registration placed on hold more than three times in a calendar year may be subject to suspension by the *building official*.

- (e) Section R105.2 of the *International Residential Code*, 2018 edition, is hereby amended, in part, by deleting Item Nos. 5 and 10 and amending Item Nos. 1 and 2 to read as follows:

Section R105.2. Work exempt from permit. Building:

1. One-story detached accessory structures used as tool and storage sheds, playhouses, and similar uses, provided the floor area does not exceed 120 square feet (11.15 m²).
2. Fences where an existing gate or pickets are being replaced as long as they are of the same height, material, size, and location, as those being replaced.

....

5. Deleted.

....

10. Deleted.

- (f) Section R105.3.1.1 of the *International Residential Code*, 2018 edition, is hereby deleted in its entirety to read as follows:

Section R105.3.1.1. Determination of substantially improved or substantially damaged existing buildings in flood hazard areas. Deleted.

- (g) Section R105.3.2 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section R105.3.2. Time limitations of applications. An application for a *permit* for any proposed work shall be deemed to have been abandoned 45 days after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the *building official* is authorized to grant one or more extensions of time for additional periods not exceeding 45 days each. The extension shall be requested in writing and justifiable cause demonstrated.

- (h) Section R105.5 of the *International Residential Code*, 2018 edition, is hereby amended by amending Section 105.5, adding a new Section 105.5.1, entitled "Swimming pools," adding a new Section 105.5.2, entitled "Lawn irrigation systems," adding a new Section 105.5.3, entitled "Fences and retaining walls," adding a new Section 105.5.4, entitled "Foundation repair, electrical, patio cover, re-roof, window/door, and all MISC permits," adding a new Section 105.5.5, entitled "Plumbing permits," adding a new Section 105.5.6, entitled "Mechanical permits," adding a new Section 105.5.7, entitled "Demolition permits," and adding a new Section 105.5.8, entitled "Umbrella permits," to read as follows:

Section R105.5. Expiration. Every *permit* issued shall become invalid unless the work on the site authorized by such permit is commenced within 45 days after its issuance. In addition, except for those *permits* specifically named in this section, every permit issued shall become invalid if work authorized on the site

by such *permit* is suspended or abandoned for a period of 180 days after the time the work is commenced. For this section, *suspended* or *abandoned* will be defined as an elapsed time of 180 days between any two approved required inspections. The *building official* is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing, and justifiable cause demonstrated. Once a permit becomes invalid and before such building or work can be recommenced, a new *permit* shall first be obtained to do so, and the fee therefor shall be one-half the amount required for a new *permit* for such building or work, provided no changes have been made or will be made in the original plans and specifications for such building or work and provided further that such suspension or abandonment has not exceeded one year. In order to renew action on a *permit* after expiration of more than one year, the permittee shall submit a new application and pay a new full *permit* fee.

105.5.1. Swimming pools. Every swimming pool permit issued by the building official under the provisions of this code shall expire by limitation and becomes null and void if the building or work authorized by such permit has not received final inspection approval within 180 days of the issuance of the permit. In the event of the expiration of the permit, no work or inspections shall be performed until a new permit shall be first obtained to do so, and the fee therefor shall be equal to the original fee.

Any permittee holding an unexpired permit may apply for an extension of the time within which work may commence under that permit when the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. The building official may extend the time for action by the permittee for a period not exceeding 30 days on written request by the permittee showing that circumstances beyond the control of the permittee have prevented action from being taken. No permit shall be extended more than once.

105.5.2. Lawn irrigation systems. Every lawn irrigation system permit issued by the building official under the provisions of this code shall expire by limitation and becomes null and void if the building or work authorized by such permit has not received final inspection approval within 60 days of the issuance of the permit. In the event of the expiration of the permit, no work or inspections shall be performed until a new permit shall be first obtained to do so, and the fee therefor shall be equal to the original fee.

Any permittee holding an unexpired permit may apply for an extension of the time within which work may commence under that permit when the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. The building official may extend the time for action by the permittee for a period not exceeding 30 days on written request by the permittee showing that circumstances

beyond the control of the permittee have prevented action from being taken. No permit shall be extended more than once.

105.5.3. Fences and retaining walls. Every fence or retaining wall permit issued by the building official under the provisions of this code shall expire by limitation and becomes null and void if the building or work authorized by such permit has not received final inspection approval within 60 days of the issuance of the permit. In the event of the expiration of the permit, no work or inspections shall be performed until a new permit shall be first obtained to do so, and the fee therefor shall be equal to the original fee.

Any permittee holding an unexpired permit may apply for an extension of the time within which work may commence under that permit when the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. The building official may extend the time for action by the permittee for a period not exceeding 30 days on written request by the permittee showing that circumstances beyond the control of the permittee have prevented action from being taken. No permit shall be extended more than once.

105.5.4. Foundation repair, electrical, patio cover, re-roof, window/door, and all MISC permits. Every foundation repair, electrical, patio cover, or any other MISC permit issued by the building official under the provisions of this code shall expire by limitation and becomes null and void if the building or work authorized by such permit has not received final inspection approval within 60 days of the issuance of the permit. In the event of the expiration of the permit, no work or inspections shall be performed until a new permit shall be first obtained to do so, and the fee therefor shall be equal to the original fee.

Any permittee holding an unexpired permit may apply for an extension of the time within which work may commence under that permit when the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. The building official may extend the time for action by the permittee for a period not exceeding 30 days on written request by the permittee showing that circumstances beyond the control of the permittee have prevented action from being taken. No permit shall be extended more than once.

105.5.5. Plumbing permits. Every plumbing permit issued by the building official under the provisions of this code shall expire by limitation and becomes null and void if the building or work authorized by such permit has not received final inspection approval within 45 days of the issuance of the permit. In the event of the expiration of the permit, no work or inspections shall be performed until a new permit shall be first obtained to do so, and the fee therefor shall be equal to the original fee.

Exception: Water heater replacement permits must receive a final inspection within 10 days of issue date.

Any permittee holding an unexpired permit may apply for an extension of the time within which work may commence under that permit when the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. The building official may extend the time for action by the permittee for a period not exceeding 30 days on written request by the permittee showing that circumstances beyond the control of the permittee have prevented action from being taken. No permit shall be extended more than once.

105.5.6. Mechanical permits. Every mechanical permit issued by the building official under the provisions of this code shall expire by limitation and becomes null and void if the building or work authorized by such permit has not received final inspection approval within 45 days of the issuance of the permit. In the event of the expiration of the permit, no work or inspections shall be performed until a new permit shall be first obtained to do so, and the fee therefor shall be equal to the original fee.

Any permittee holding an unexpired permit may apply for an extension of the time within which work may commence under that permit when the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. The building official may extend the time for action by the permittee for a period not exceeding 30 days on written request by the permittee showing that circumstances beyond the control of the permittee have prevented action from being taken. No permit shall be extended more than once.

Exception: Indoor unit replacement permits must receive a final inspection within 10 days of issue date.

105.5.7. Demolition permits. Every demolition permit issued by the building official under the provisions of this code shall expire by limitation and becomes null and void if the building or work authorized by such permit has not received final inspection approval within 60 days of the issuance of the permit. In the event of the expiration of the permit, no work or inspections shall be performed until a new permit shall be first obtained to do so, and the fee therefor shall be equal to the original fee.

Any permittee holding an unexpired permit may apply for an extension of the time within which work may commence under that permit when the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. The building official may extend the time for action by the permittee for a period not exceeding 30 days on written request by the permittee showing that circumstances

beyond the control of the permittee have prevented action from being taken. No permit shall be extended more than once.

105.5.8. Umbrella permits. Every umbrella permit issued by the building official under the provisions of this code shall expire by limitation and becomes null and void if the building or work authorized by such permit has not received final inspection approval within 180 days of the issuance of the permit. In the event of the expiration of the permit, no work or inspections shall be performed until a new permit shall be first obtained to do so, and the fee therefor shall be equal to the original fee.

Any permittee holding an unexpired permit may apply for an extension of the time within which work may commence under that permit when the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. The building official may extend the time for action by the permittee for a period not exceeding 30 days on written request by the permittee showing that circumstances beyond the control of the permittee have prevented action from being taken. Permits may be extended more than once, but not more than three times.

- (i) Section R105.10 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

Section R105.10. Work commencing before permit issuance. Any person who commences any work on a building, structure, electrical, gas, mechanical, or plumbing system before obtaining the necessary *permits* shall be subject to a citation for working without a *permit* and/or a fee equal to the total permit fee for that project, which shall be in addition to the required *permit* fees.

- (j) Section R106.1 of the *International Residential Code*, 2018 edition, is hereby amended by appending a paragraph following the existing text, to read as follows:

Section R106.1 Submittal documents. {existing text unchanged}.... Foundation and framing plans must be submitted with each application. These plans shall be designed by an engineer licensed by the State of Texas and shall bear that engineer's seal. With the exception of conventional framing per this code, all framing plans for residential dwellings shall be designed by an engineer licensed by the State of Texas, and all drawings and documents must be signed and sealed.

- (k) Section R106.1.4 of the *International Residential Code*, 2018 edition, is hereby deleted in its entirety to read as follows:

Section R106.1.4. Information for construction in flood hazard area. Deleted.

- (l) Section R106.5 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section R106.5. Retention of construction documents. One set of approved foundation documents shall be retained by the *building official* for a period of not less than 180 days from the date of completion of the permitted work, or as required by state or local laws.

- (m) Section R109.1.1 of the *International Residential Code*, 2018 edition, is hereby amended by appending a paragraph following the existing text, to read as follows:

Section R109.1.1 Foundation inspection. {existing text unchanged}... Prior to scheduling the required foundation inspection, the design engineer must perform an inspection and provide the building official with a signed and sealed letter stating that the foundation has been installed per the design.

- (n) Section R109.1.4 of the *International Residential Code*, 2018 edition, is hereby amended by appending a paragraph following the existing text, to read as follows:

Section R109.1.4 Framing and masonry inspection. {existing text unchanged}... Prior to scheduling the required "top-out" inspection, the design engineer must perform an inspection and provide the building official with a signed and sealed letter stating that the framing has been installed per the design.

- (o) A new Section R109.5 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

Section R109.5. General. Construction or work for which a *permit* is required shall be subject to inspection by the *building official*, and such work shall remain accessible and exposed for such purposes until approved. Before any inspection is approved, an address shall be posted that can be read from the street; and all rights-of-way, streets, and alleys shall be clean and clear of mud, sand, concrete, and building materials. All trash, construction debris, and construction material on site shall be contained in an approved manner. In addition to the above requirements, toilet facilities shall be provided for construction workers, and such facilities shall be maintained in a sanitary condition. Construction-worker toilet facilities of the non-sewer type shall conform to ANSI Z4.3. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of this code or of other ordinances of the town. Inspections presuming to give authority to violate or cancel the provisions of this code or of other ordinances of the town shall not be valid. It shall be the duty of the *permit* applicant to cause the work to remain accessible and exposed for inspection purposes. Neither the *building official* nor the town shall be liable for any expense entailed in the removal or replacement of any material required to allow

inspection. Any inspection that is scheduled and found not to be ready may be assessed a re-inspection fee listed in Appendix A of the code of ordinances. This fee must be paid before approval of a Utility Final inspection. If a Utility Final inspection is not required, this fee must be paid before approval of the All Finals inspection.

- (p) Section R110 of the *International Residential Code*, 2018 edition, is hereby deleted in its entirety:

Section R110. Certificate of occupancy. Deleted.

- (q) Section R202 of the *International Residential Code*, 2018 edition, is hereby amended by adding a definition for “Construction trash and debris” and amending the definition of “Townhouse” to read as follows, in alphabetical order:

Section R202. Definitions.

CONSTRUCTION TRASH AND DEBRIS. Any material generated by or from a construction site that has no useful purpose as determined by the administrative authority.

TOWNHOUSE. A single-family dwelling unit constructed in a group of three or more attached units separated by property lines in which each unit extends from foundation to roof and with a yard or public way on at least two sides.

- (r) Table R301.2(1) of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Table R301.2 (1). Climatic and Geographic Design Criteria.

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	Wind Special Region ^L	Windborne Debris Zone ^m		Weathering ^a	Frost Line Depth ^b	Termites ^c					
5 lb/ft	115 (3 sec-	No	No	No	A	Moderate	6"		22 ^o F	No	Local	150	64.9 ^o F

	gust)/ 76 fastest mile							Very Heav y			Cod e		
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Delete remainder of table Manual J Design Criteria and footnote N

- (s) Section R302.1 of the *International Residential Code*, 2018 edition, is hereby amended by adding a new Exception No. 6 to read as follows:

Section R302.1. Exterior walls. Exceptions:

6. Open non-combustible carport structures may be constructed when approved as required by other adopted ordinances.

- (t) Section R302.3 of the *International Residential Code*, 2018 edition, is hereby amended by adding a new Exception No. 3 to read as follows:

Section R302.3. Two-family dwellings. Exception:

3. Two-family dwelling units that are also divided by a property line through the structure shall be separated as required for townhouses.

- (u) Section R302.5.1 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section 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 a solid wood doors not less than 1 3/8 inches (35mm) in thickness, solid or honeycomb core steel doors not less than 1 3/8 inches (35mm) thick, or 20-minute fire-rated doors.

- (v) Section R303.3 of the *International Residential Code*, 2018 edition, is hereby amended by amending the Exception to read as follows:

Section R303.3. Bathrooms. Exception: The glazed areas shall not be required where artificial light and a local exhaust system are provided. The minimum local exhaust rates shall be determined in accordance with Section M1507. Exhaust air from the space shall be exhausted directly to the outdoors unless the space contains only a water closet, a lavatory, or a water closet and a lavatory, which are permitted to be ventilated using an approved mechanical recirculating fan or similar system device to remove odors from the air.

- (w) Section R311.7.3 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section R311.7.3. Vertical rise. A flight of stairs shall not have a vertical rise larger than 20 feet (6,096 mm) between floor levels or landings.

- (x) Section R311.7.8 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section R311.7.8. Handrails. Handrails shall be provided on at least one side of each continuous run of treads or flight with four or more risers, except that for stairs or flights of stairs that incorporate winders, the handrail shall be located on the inside radius of the stair or flight of stairs.

- (y) Section R311.7.8.2 of the *International Residential Code*, 2018 edition, is hereby amended by amending Exception No. 1 to read as follows:

Section R311.7.8.2. Continuity. Exceptions:

1. Handrails shall be permitted to be interrupted by a newel post at a stair landing.

- (z) Section R313 of the *International Residential Code*, 2018 edition, is hereby amended by deleting it in its entirety as follows:

Section R313. AUTOMATIC FIRE SPRINKLER SYSTEMS. Deleted.

- (aa) Section R315.2.2 of the *International Residential Code*, 2018 edition, is hereby amended by amending exception 2. to read as follows:

Exceptions:

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

- (bb) Section R322 of the *International Residential Code*, 2018 edition, is hereby amended by deleting it in its entirety as follows:

Section R322. FLOOD-RESISTANT CONSTRUCTION. Deleted

- (cc) Section R326.1 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section 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.

- (dd) Section R401.2 of the *International Residential Code*, 2018 edition, is hereby amended by adding a new paragraph following the existing paragraph and adding two new exceptions 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. In addition, a letter stating that the design complies with this code shall be submitted at time of application for permit.

Exceptions:

1. Detached storage sheds, play houses, and other similar buildings up to and including 150 square feet:

Buildings up to and including 150 square feet may be placed on the ground and shall provide resistance to wind load by one of the following methods:

Anchored to a 4 inch thick slab reinforced with 6 X 6 #10 wire mesh or #3 (3/8") rebar spaced at 18 inches on center each way.

Anchored at all corners, each corner anchored by a system to resist a horizontal wind load of 115 (3-sec-gust)/76 miles per hour.

2. Habitable additions up to and including 500 square feet, and accessory buildings, play houses, and similar buildings greater than 150 square feet up to and including 500 square feet:

Beams must be constructed at all perimeters. All beams are required to be at least 10 inches wide and 20 inches deep with 2 #5 (5/8") bars in the top and 2 #5 (5/8") bars in the bottom of the beam. Interior beams must also be constructed and located no more than 15 feet apart. All beams must extend at least 12 inches into undisturbed soil. Place #3 (3/8") bars 18 inches on center each way in the middle of the new 4-inch slab.

For house additions, the existing concrete pad must be connected to the perimeter beam of the new foundation by #3 (3/8") bars doweled in to the existing foundation at 24-inch centers. The dowel bars must penetrate into the existing slab a minimum of 6 inches and extend into the new perimeter beam a minimum of 6 inches.

Note: Regardless of square footage, if the existing slab is post-tensioned, an engineer's design is required.

- (ee) Section R602.6.1 of the *International Residential Code*, 2018 edition, is hereby amended, the Exception is deleted in its entirety, and Figure R602.6.1 is replaced with a new Figure R602.6.1, entitled "Top Plate Framing to Accommodate Piping" to read as follows:

Section 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 of the notch to the first nail hole 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.

Exception: Deleted.

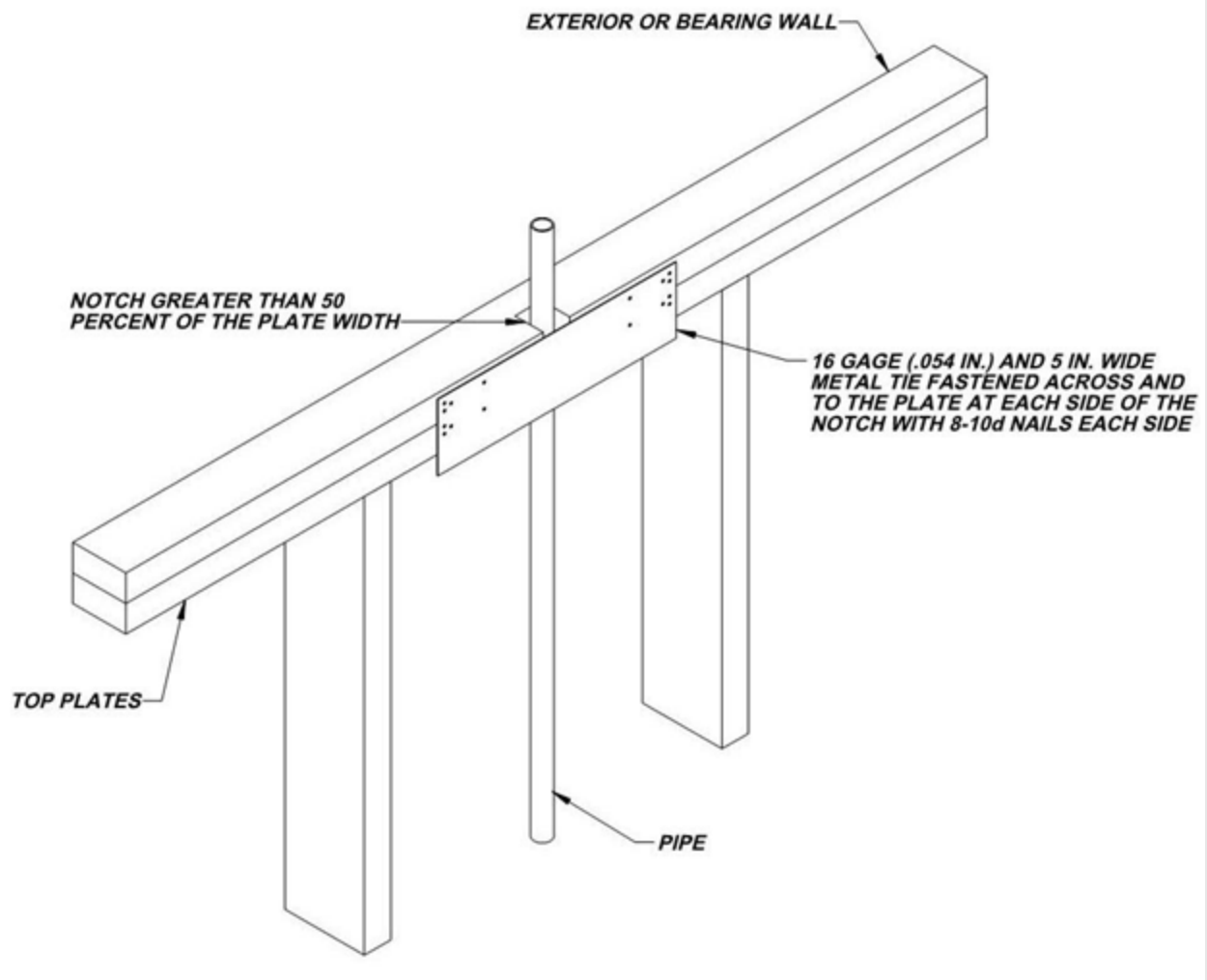


FIGURE R602.6.1
Top Plate Framing to Accommodate Piping

- (ff) Section R703.8.4.1 of the *International Residential Code*, 2018 edition, is hereby amended by adding a new second paragraph prior to the existing Exception to read as follows:

Section R703.8.4.1. Size and spacing. {Existing paragraph unchanged.} ...

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) from the foundation.
- (gg) Section R902.1 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows, and a new Exception No. 5 is added to read as follows:

Section 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..... {remainder unchanged}.

Exceptions:

5. Non-classified roof coverings shall be permitted on one-story detached accessory structures used as tool and storage sheds, playhouses, and similar uses, provided the floor area does not exceed 120 square feet.
- (hh) Part IV-Energy Conservation of the *International Residential Code*, 2018 edition, is hereby amended by renaming this Part IV, as follows:

Part IV-Residential Provisions for Energy Efficiency

- (ii) Chapter 11 of the *International Residential Code*, 2018 edition, is hereby deleted and replaced with the *International Energy Conservation Code*, 2018 edition, *Residential Provisions* with amendments.
- (jj) Section M1305.1.2 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section M1305.1.2. 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, access to the attic space shall be provided by 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}*.

- (kk) Section M1401.3 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section M1401.3 Equipment and appliance sizing. Heating and cooling equipment and appliances for new construction, including additions 500 square feet or greater, shall be sized in accordance with ACCA Manual S or other approved sizing methodologies based on building loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies. *{remaining existing text unchanged}*....

- (ll) Section M1411.3 of the *International Residential Code*, 2018 edition, is hereby amended to replace the first sentence to read as follows:

Section M1411.3. Condensate disposal. Condensate from all cooling coils or evaporators shall be conveyed from the drain pan outlet to the sanitary sewer through the fixture side of a trap, by means of a direct or indirect drain. *{remaining existing text unchanged}*....

- (mm) Section M1411.3.1 of the *International Residential Code*, 2018 edition, is hereby amended by amending Item Nos. 3 and 4 by adding a new sentence at the end of each item to read as follows:

Section M1411.3.1. Auxiliary and secondary drain systems.

3. *{existing text unchanged}*.... A water-level detection device may be installed only with prior approval of the building official.
4. *{existing text unchanged}*.... A water-level detection device may be installed only with prior approval of the building official.

- (nn) Section M1411.3.1.1 of the *International Residential Code*, 2018 edition, is hereby amended by adding a new sentence at the end of the existing paragraph to read as follows:

Section M1411.3.1.1. Water-level monitoring devices. *{existing text unchanged}*.... A water-level detection device may be installed only with prior approval of the building official.

- (oo) Section M1503.6 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section M1503.6. 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.

- (pp) Section M2005.2 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section 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. Direct-vent water heaters are not required to be installed within an enclosure.

- (qq) Section G2408.3 of the *International Residential Code*, 2018 edition, is hereby amended by deleting this section and the listed Exception in their entirety to read as follows:

Section G2408.3. Private garages. Deleted.

Exception. Deleted.

- (rr) Section G2413.3 of the *International Residential Code*, 2018 edition, is hereby amended by adding an exception after the three listed Items to read as follows:

Section G2413.3. (402.3) Sizing. {existing text unchanged}

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

- (ss) Section G2415.2 of the *International Residential Code*, 2018 edition, is hereby amended by adding a new second paragraph to the existing paragraph to read as follows:

Section G2415.2. CSST. *{existing text unchanged}....*

Both ends of each section of medium pressure corrugated stainless steel tubing (CSST) 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"

- (tt) Section G2415.12 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

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

- (uu) Section G2415.12.1 of the *International Residential Code*, 2018 edition, is hereby amended by deleting this section in its entirety as follows:

Section G2415.12.1. (404.12.1) Individual outside appliances. Deleted.

- (vv) Section G2417.1 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section 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.

- (ww) Section G2417.4 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section 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.

- (xx) Section G2417.4.1 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section G2417.4.1. (406.4.1) Test pressure. The test pressure to be used shall be not less than 3 psig (20 kPa gauge), or at the discretion of the building official, the *pipng* 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 diaphragm 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 *pipng*, and for piping carrying gas at pressures in excess of fourteen (14) inches of 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 *pipng* carrying gas at a pressure that exceeds 200 inches of water column pressure (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.

- (yy) Section G2420.1 (409.1) of the *International Residential Code*, 2018 edition, is hereby amended by adding a new Section G2420.1.4 (409.1.4), entitled “Valves in CSST installations,” to read as follows:

Section G2420.1.4. (409.1.4) Valves in CSST installations. Shutoff valves installed with corrugated stainless steel (CSST) *pipng* 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 *pipng*, 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 *pipng*.

- (zz) Section G2420.5.1 of the *International Residential Code*, 2018 edition, is hereby amended by adding a sentence at the end to read as follows:

Section G2420.5.1. (409.5.1) Located within the same room. {existing text unchanged} A secondary shutoff valve must be installed within 3 feet (914 mm) of the firebox if appliance shutoff is located in the firebox.

- (aaa) Section G2421.1 of the *International Residential Code*, 2018 edition, is hereby amended by adding a new second paragraph and new exception to read as follows:

Section G2421.1. (410.1) Pressure regulators. *{existing text unchanged}*

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.

- (bbb) Section G2422.1.2.3 of the *International Residential Code*, 2018 edition, is hereby amended by deleting Exception Nos. 1 and 4 in their entirety as follows:

Section G2422.1.2.3. (411.1.3.3) Prohibited locations and penetrations.

Exception No.1. Deleted

Exception No. 4. Deleted.

- (ccc) Section G2445.2 of the *International Residential Code*, 2018 edition, is hereby amended by adding a new exception to read as follows:

Section G2445.2. Prohibited use. *{existing text unchanged}*

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 building official, unless an unsafe condition is determined to exist as described in *International Fuel Gas Code* section 108.7.

- (ddd) Section G2448.1.1 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section 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*.

- (eee) Section P2603.3 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section P2603.3 Protection against corrosion. Metallic piping, except for cast iron, ductile iron and galvanized steel, shall not be placed in direct contact with steel framing members, concrete or cinder walls and floors or other masonry.

Metallic piping shall not be placed in direct contact with corrosive soil. Where sheathing is used to prevent direct contact, the sheathing shall have a thickness of not less than 0.008 inch (8 mil) (0.203 mm) and the sheathing shall be made of approved material. Where sheathing protects piping that penetrates concrete or masonry walls or floors, the sheathing shall be installed in a manner that allows movement of the piping within the sheathing.

- (fff) Section P2603.5.1 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section P2603.5.1. Sewer depth. Building sewers shall be a minimum of 12 inches (304 mm) below grade.

- (ggg) Section P2801.6.1 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section P2801.6.1. Pan size and drain. *{existing text unchanged}*.....The pan shall not be less than 11/2 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 2906.5. Where a pan drain was not previously installed, a pan drain shall be required for replacement water heaters located on exterior walls or in garages. Replacement water heaters that are not located on an exterior wall or in a garage, shall not be required to add a pan drain, but must be equipped with an automatic shutoff or water-level detection device.

- (hhh) Section P2801.7 of the *International Residential Code*, 2018 edition, is hereby amended by adding new Exception No. 2 to read as follows:

Section P2801.7. Water heaters installed in garages. *{existing text unchanged}*

Exception:

3. Electric water heaters.

- (iii) Section P2801.9 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

Section P2801.9 Water heaters installed in attics or with living space below. Water heaters other than tankless, when located in attic space or a space located above living space, shall be equipped with an approved device to automatically shut off the water supply if a water leak is detected.

- (jjj) Section P2804.6.1 of the *International Residential Code*, 2018 edition, is hereby amended 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 in compliance with those instructions.

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

[remainder unchanged]

- (kkk) Section P2902.5.3 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

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

All lawn sprinkler systems shall be equipped with a temperature sensing device that stops the flow of water through the lawn sprinkler system when the ambient temperature is thirty-eight degrees Fahrenheit or less. In addition, all systems shall be equipped with a device that stops the flow of water through the lawn sprinkler system when one-quarter inch or more of rain falls. Further, pursuant to Section 551.006 of the Texas Local Government Code, all lawn sprinkling systems shall comply with Section 1903.053 of the Texas Occupations Code, and any rules adopted by the Texas Commission on Environmental Quality pursuant to that section.

- (III) Section P3003.9.2 of the *International Residential Code*, 2018 edition, is hereby amended by deleting the exceptions to read as follows:

Section P3003.9.2. Solvent cementing.

Exceptions. Deleted.

(mmm) Section P3005.2.2.1 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

Section P3005.2.2.1. Building sewer and sewer lateral junction. A clean out must be provided at this junction in compliance with most current Town of Flower Mound Design Criteria and Construction Standards.

(nnn) Section P3005.2.3 of the *International Residential Code*, 2018 edition, is hereby amended by adding a second paragraph to read as follows:

Section P3005.2.3. Building drain and building sewer junction.

For swimming pools that are constructed on lots that have public sewer, a drain or backwash line with a minimum size of 1½ inch must be provided. This line must direct waste into the public sewer by use of an air gap into a 3-inch trap. The trap seal of this trap must be protected from freezing, and the standpipe must rise at least 3 inches above grade.

(ooo) Section P3111 of the *International Residential Code*, 2018 edition, together with all of its component sections, is hereby deleted in its entirety as follows:

Section P3111. Combination waste and vent system. Deleted.

Section 3111.1. Type of fixtures. Deleted.

Section 3111.1.1 Single-fixture systems. Deleted.

Section 3111.2. Installation. Deleted.

Section 3111.2.1. Slope. Deleted.

Section 3111.2.2. Vent connection. Deleted.

Section 3111.2.3. Vent size. Deleted.

Section 3111.3. Size and length. Deleted.

(ppp) Section P3112.2 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section 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 drain board 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.

- (qqq) Section AH101.2 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section AH101.2 Permitted uses. Solid-roofed patio covers shall be permitted to be attached or detached. Attached solid-roofed patio covers must maintain the setbacks required for the main structure. Detached solid-roofed patio covers must be set back five feet from any building or structure located on the property, must be located no closer to the front property line than the main building, and must maintain a minimum of five feet from all property lines, except that on corner lots, the patio cover must adhere to the exterior side-yard setback established for the primary structure. Open-roofed patio covers shall be permitted to be attached or detached and must be located at least five feet from any property line and must be located no closer to the front property line than the main building. Patio covers shall be used for recreational, outdoor living purposes and not as carports, storage areas, accessory buildings, or habitable rooms.

- (rrr) Section AH103.1 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section AH103.1. Patio covers. The sides of detached patio cover structures shall not enclose more than 25 percent of the exterior walls measured around the perimeter or more than 25 percent of the floor area measured under roof. Any structure that exceeds these percentages must be reviewed and permitted using the accessory building regulations. No patio cover may exceed 25 percent of the floor area of the main structure.

- (sss) Section AH104.1 of the *International Residential Code*, 2018 edition, is hereby amended to read as follows:

Section AH104.1 Height. Attached patio covers must comply with the height requirements of the main structure. Detached patio covers shall be permitted as one-story structures not exceeding 14 feet in height, except that those located in SFE (single-family estate) and A (agriculture) zoning shall be limited in height to 20 feet. Height shall be measured from the average grade adjacent to the patio cover to the peak of the roof.

- (ttt) Appendix Q of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

Appendix Q. SWIMMING POOLS, SPAS, AND HOT TUBS

- (uuu) Section AQ101 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

SECTION AQ101 GENERAL

- (vvv) Section AQ101.1 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

Section 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.

- (www) Section AQ101.2 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

Section AQ101.2. Location requirements.

- (a) **Front yard.** No swimming pool, spa, or hot tub shall be located within the required or established front yard. On a corner lot, where both street exposures are treated as front yards, for the purposes of this section, the front yards shall be determined by the placement of the main building along with the legal address.
- (b) **Side yard.** All swimming pools, spas, and hot tubs must be located at least five feet from the side property line to the water's edge.
- (c) **Rear yard.** All swimming pools, spas, and hot tubs must be located at least five feet from the rear property line to the water's edge.
- (d) **Easements.** No swimming pool, spa, or hot tub, including applicable decks, shall be located in an easement.
- (e) **Equipment.** No equipment may be placed within the required or established front yard as defined in subsection (a) of this section,

or within any easement. Equipment in relation to the pool shall not be affixed to any required perimeter fencing or common fences between property owners. Adequate drainage must be provided between any equipment and any property line. At a minimum, a two foot open space must be maintained.

- (xxx) Section AQ101.3 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

Section AQ101.3. Required inspections.

- (1) **Pre-drainage inspection.** This visual inspection verifies and approves the Drainage and Access plan that was submitted during the plan review phase.
- (2) **Belly steel and pool placement inspection.** Before any concrete or gunite can be placed, the belly steel and placement of the pool shall be inspected and approved. Rebar shall be a minimum size of three-eighths of an inch and located no more than 12 inches on center each way.
- (3) **Deck steel, electrical bond, electrical underground and plumbing.** Before any concrete is placed for the pool deck, the placement of steel and the electrical bond shall be inspected and approved. The concrete deck shall be a minimum thickness of 3½ inches. Rebar shall be a minimum size of three-eighths of an inch and located no more than 18 inches on center each way. The bond conductor shall be a minimum size of No. 8 AWG. A minimum of four ground clamps that are evenly spaced around the pool shall be required to electrically bond the pool from stray ground current. All electrical conductors buried in the ground shall be inspected and approved prior to covering. All pool plumbing shall be subjected to a minimum water test of 15 psi.
- (4) **P-trap and gas line.** Before the backwash line, p-trap, and gas line are covered in any way, those items shall be inspected and approved. All pools shall have a p-trap and backwash line connected to the sanitary sewer.

Exception: Aboveground pools and spas that have a capacity of 750 gallons or less are not required to install a p-trap or backwash line. On lots that do not have access to town sewer and where sanitary drainage is provided through a septic system, no p-trap or backwash line is required; however, adequate drainage must be provided to allow for drainage of the pool.

- (5) **Pre-plaster inspection.** Before any water is placed in the pool, the permanent fence shall be installed, inspected, and approved.
- (6) **Final drainage inspection.** At the time of this inspection, all drain lines and dirt work must be completed. Installation of permeant vegetation in all disturbed areas must be installed before receiving a final drainage approval.

Exception: If pre-approved, the requirement for final vegetation may be waived. If permeant vegetation is waived, erosion control devices would be required in all disturbed areas before this inspection could be approved.

- (7) **Pool final.** All pool permits must receive an approved final inspection within 180 days of the issue date, or the permit will be expired.

(yyy) Section AQ102 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

SECTION AQ102 DEFINITIONS

(zzz) Section AQ102.1 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

Section 102.1 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.

(aaaa) Section AQ103 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

SECTION AQ103 SWIMMING POOLS

(bbbb) Section AQ103.1 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

Section AQ103.1. In-ground pools. In-ground pools shall be designed and constructed in compliance with ANSI/NSPI-5.

(cccc) Section AQ103.2 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

Section 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.

(dddd) Section AQ104 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

SECTION AQ104 SPAS AND HOT TUBS

(eeee) Section AQ104.1 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

Section 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.

(ffff) Section AQ104.2 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

Section AQ104.2. Portable spas and hot tubs. Portable spas and hot tubs shall be designed and constructed in compliance with ANSI/NSPI-6.

(gggg) Section AQ105 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

SECTION AQ105 BARRIER REQUIREMENTS

(hhhh) Section AQ105.1 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

Section 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. At all times during the construction of a pool, or until a permanent barrier meeting all the requirements of AG105.2 is installed, a temporary barrier that is at least thirty-six inches (36") in height, and meets the opening provisions of AG105.2, shall completely surround the pool excavation.

(iiii) Section AQ105.2 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

Section 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 (51 mm) measured on the side of the barrier which faces away from the swimming pool. The maximum vertical clearance at the bottom of the barrier may be increased to four (4) inches when grade is a solid surface such as a concrete deck. 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 a barrier is composed of horizontal and vertical members, and the distance between the tops of the horizontal members is less than 45 inches (1,143 mm), the horizontal members must be on located on the

swimming pool side of the fence unless the barrier is a common fence between neighbors or the tops of any one member is at least 45 degrees, when measured from the horizontal, in which such members would not be considered horizontal. 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 (1,372 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 no 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 (1,372 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.

(jjjj) Section AQ105.3 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

Section AQ105.3. Indoor swimming pool. Walls surrounding an indoor swimming pool shall comply with Section AQ105.2, Item 9.

(kkkk) Section AQ105.4 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

Section AQ105.4. Prohibited locations. Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb them.

(llll) Section AQ105.5 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

Section 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.

(mmmm) Section AQ106 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

SECTION AQ106 ENTRAPMENT PROTECTION FOR SWIMMING POOL AND SPA SUCTION OUTLETS

(nnnn) Section AQ106.1 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

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

(oooo) Section AQ107 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

SECTION AQ107 ABBREVIATIONS

(pppp) Section AQ107.1 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

Section 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

(qqqq) Section AQ108 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

SECTION AQ108 REFERENCED STANDARDS

(rrrr) Section AQ108.1 of the *International Residential Code*, 2018 edition, is hereby added to read as follows:

**Section 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
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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
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UL

UL 2017—2000	Standard for General-purpose Signaling Devices and Systems—with revisions through June 2004	AQ105.2
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SECTION 4

From and after the effective date of this Ordinance, Section 14-573 of the Code of Ordinances of the Town of Flower Mound, Texas, entitled “Board of Appeals,” is hereby deleted and is replaced with the following:

“Sec. 14-573. Board of Appeals.

The members of the town board of adjustment are hereby appointed as the board of appeals as provided by the *International Residential Code*, 2018 edition, and any changes in membership of the board of adjustment shall likewise be reflected in the membership of said board of appeals.”

SECTION 5

All ordinances, orders, or resolutions heretofore passed and adopted by the Town of Flower Mound, Texas, are hereby repealed to the extent that said ordinances, orders, or resolutions, or parts thereof, are in conflict herewith.

SECTION 6

If any section, subsection, clause, phrase, or provision of this Ordinance, or the application thereof to any person or circumstance, shall to any extent be held by a court of competent jurisdiction to be invalid, void, or unconstitutional, the remaining sections, subsections, clauses, phrases, and provisions of this Ordinance, or the application thereof to any person or circumstance, shall remain in full force and effect and shall in no way be affected, impaired, or invalidated.

SECTION 7

Any person who violates any provision of this Ordinance shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine as provided in Section 1-13 of the Code of Ordinances of the Town of Flower Mound, Texas. Each day any such violation or violations exist shall constitute a separate offense and shall be punishable as such.

SECTION 8

The Town Secretary of the Town of Flower Mound is hereby directed to publish the caption in the official newspaper of the Town of Flower Mound as required by Section 3.07 of the Charter of the Town of Flower Mound.

SECTION 9

This Ordinance shall take effect and be in full force from and after its passage and publication, as provided by the Revised Civil Statutes of the State of Texas and the Home Rule Charter of the Town of Flower Mound, Texas.

DULY PASSED AND APPROVED BY THE TOWN COUNCIL OF THE TOWN OF FLOWER MOUND, TEXAS, BY A VOTE OF 5 TO 0, ON THIS 15TH DAY OF JULY, 2019.

APPROVED:

Steve Dixon, MAYOR

ATTEST:

Theresa Scott, TOWN SECRETARY