

ORDINANCE NO. 20170406-048

AN ORDINANCE REPEALING AND REPLACING ARTICLE 11 OF CITY CODE CHAPTER 25-12 TO ADOPT THE 2015 INTERNATIONAL RESIDENTIAL CODE AND LOCAL AMENDMENTS AND CREATING OFFENSES.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:

PART 1. City Code Chapter 25-12 is amended to repeal Article 11 (*Residential Code*) and replace it with a new Article 11 to read as follows:

ARTICLE 11. RESIDENTIAL CODE.

§ 25-12-241 INTERNATIONAL RESIDENTIAL CODE.

- (A) The International Residential Code For One- and Two-Family Dwellings, 2015 Edition, published by the International Code Council ("2015 International Residential Code") and Appendices C, E, H, J, R, and S are adopted and incorporated by reference into this section with the deletions in Subsections (B), (C), and (D) and amendments in Section 25-12-243 (*Local Amendments to the International Residential Code Code*).
- (B) The following provisions of the 2015 International Residential Code are deleted.

Section R101.2	Section R104.4	Section R104.10.1
Section R105.2	Section R105.3.1.1	Section R105.3.2
Section R105.5	Section R106.1.4	Section R109.1.1
Table R301.2(1)	Section R301.2.4	Section R302.1
Section R320	Section R322.1	Section R322.1.4
Section R322.1.4.1	Section R322.1.4.2	Section R322.1.5
Section R322.2	Section R322.2.1	Section R322.2.2
Section R322.2.3	Section R326	Part IV
Part VIII	AJ102.4.3	AE303
AE304		

- (C) Except for P2904, Part VII (*Plumbing*) of the International Residential Code is deleted.
- (D) The definition of “Height, Building” in Section R202 (*Definitions*) of the International Residential Code is deleted.
- (E) The city clerk shall retain a copy of the 2015 International Residential Code with the official ordinances of the City of Austin.

§ 25-12-242 CITATIONS TO THE RESIDENTIAL CODE.

In the City Code, “Residential Code” means the 2015 International Residential Code adopted by Section 25-12-241 (*International Residential Code*), as amended by Section 25-12-243 (*Local Amendments to the International Residential Code*).

§ 25-12-243 LOCAL AMENDMENTS TO THE INTERNATIONAL RESIDENTIAL CODE.

The following provisions are local amendments to the 2015 International Residential Code. Each provision of this section is a substitute for any identically numbered provision of the International Residential Code deleted by Section 25-12-241(B),(C), and (D) (*International Residential Code*), or is an addition to the International Residential Code.

R101.2 Scope. The provisions of the Residential Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal, and demolition of:

1. one-and two-family dwellings;
2. townhouses not more than three stories above grade plane in height with a separate means of egress;
3. owner-occupied lodging houses with six or fewer guestrooms that are not more than three stories above grade plane in height and include a separate means of egress and a fire sprinkler system in accordance with Section P2904; and
4. accessory structures not more than three stories above grade plane in height that are associated with the dwellings, townhomes, and owner-occupied lodging houses.

R101.2.1 Plumbing. The provisions of the International Plumbing Code and the Plumbing Code apply when a person installs, alters, repairs, and replaces plumbing systems, including equipment, appliances, fixtures, fittings, and appurtenances, and where connected to a water or sewage system. The Plumbing Code supersedes the International Plumbing Code to the extent of conflict.

Exception: A residential fire sprinkler system shall be designed and installed as required by Section P2904 and shall comply with the Fire Code. Backflow prevention shall be provided as required by the Plumbing Code.

R102.2.2 Additional information on procedures and rules related to administering the Residential Code is available in the Building Criterial Manual.

R104.4 Inspections. The building official is authorized to make inspections and may accept written inspection reports prepared and certified by approved agencies, registered design professionals, or individuals. The building official is authorized to engage such expert opinions as deemed necessary to report upon unusual technical issues that arise. When special conditions exist, the building official is authorized to require additional construction documents be prepared by a registered design professional including but not limited to: building envelope survey, impervious coverage survey when within 5% of the maximum allowable or when maximum is exceeded, building height survey, finish floor elevations, foundation report, and flood elevation certificate. If the building official requires a survey, the survey must be performed by a Texas registered professional surveyor.

R104.10.1 Flood Hazard Areas. City Council decides a request for a variance to a flood hazard area requirement. The request must be decided in accordance with Appendix G, Section G105 (*Variances*) of the Building Code.

R105.1. Separate Permit. A separate permit must be obtained for each building or structure.

R105.1.2 Person authorized to obtain permits for mechanical work. Except as otherwise provided in Section R105 (*Permits*), only an air conditioning and refrigeration contractor licensed by the State of Texas to perform mechanical work and registered with the City may obtain a permit required by the Residential Code to perform mechanical work.

R105.2 Work exempt from permit. A permit is not required for the work described in this provision. Work exempt from a permit must still comply with the Residential Code and all other applicable laws and City Code requirements.

Building:

1. A one-story detached accessory structure that is no more than 200 square feet (18.58 m²) of floor area, no more than 15 feet (4572 mm) in height, does not create a dwelling, contains no plumbing, and is not located within a flood hazard area.
2. Unless located within a flood hazard area, a fence that is not over 8 feet (2438 mm) high.

3. Unless supporting a surcharge or located within a flood hazard, a retaining wall that is not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall.
4. A water tank that is supported directly upon grade if the tank's capacity does not exceed 5,000 gallons and the ratio of height to diameter or width does not exceed 2 to 1, and the tank is not located within a flood hazard area.
5. A sidewalk or driveway that is not located in the public right-of-way.
6. Painting, papering, tiling, carpeting, cabinets, counter tops, and similar work.
7. A swimming pool that is prefabricated and less than 24 inches (610 mm) deep.
8. Playground equipment, including a swing.
9. A window awning that does not project more than 54 inches (1372 mm) from the exterior wall and the only required support is the exterior wall.
10. A deck that is no more than 200 square feet (18.58 m²) in area, is no more than 30 inches (762 mm) above grade at any point, is not attached to a dwelling, does not provide egress from the dwelling, and is not located within a flood hazard area.
11. A gypsum board repair that does not exceed 64 square feet, is not part of a fire-resistance-rated construction assembly, a shear-wall assembly, or a tub and shower surround.
12. Asphalt shingles that replace existing asphalt shingles.
13. A foundation repair that does not exceed 64 square feet.
14. A floor decking repair that does not exceed 64 square feet.
15. A non-structural exterior deck repair that is limited to the existing deck boards and does not include guardrails or handrails.
16. Repairing or replacing exterior trim components including wood fascia, trim, and soffits.
17. Siding that does not exceed 64 square feet and is not part of a fire-resistance rated assembly.
18. Roof decking that does not exceed 64 square feet.
19. Replacing or installing an overhead garage door on a garage.
20. Other work as determined by the building official.

Mechanical:

1. A portable heating appliance.
2. A portable ventilation appliance.
3. A portable cooling unit.
4. A steam, hot- or chilled-water pipe within heating or cooling equipment regulated by the Residential Code.
5. Replacing a minor part of equipment that does not alter its approval or make it unsafe.
6. A portable evaporative cooler.
7. A self-contained refrigeration system that contains 10 pounds (4.54 kg) or less of refrigerant or that is actuated by motors of 1 horsepower (746 W) or less.

8. A portable-fuel-cell appliance that is not connected to a fixed pipe system and is not interconnected to a power grid.
9. Replacing three or fewer supply and return duct runs.
10. Replacing an exhaust or dryer duct run measuring less than 15 feet (4572 mm) in length.

R105.3.1.1 In flood hazard areas, determination of substantially improved or substantially damaged existing buildings. For an application to reconstruct, rehabilitate, add or otherwise improve an existing building or structure located in a flood hazard area, the building official shall examine or require another to examine the construction documents and shall prepare a finding with regard to the value of the proposed work. If the work is a substantial improvement as defined in Section R202 (*Definitions*), the proposed work shall comply with Section R322 (*Flood-Resistant Construction*) of the Residential Code and Appendix G (*Flood-Resistant Construction*) of the Building Code.

R105.5 Time Limitation on Application; Permit Expiration and Reactivation. Time limits on permit applications and requirements for permit expiration and reactivation, including an enhanced fee for expired permits, are set forth in Chapter 25-12, Article 13 (*Administration of Technical Codes*).

R105.10 Homestead Permit. A person who is not licensed to perform electrical, mechanical, and plumbing work may perform electrical, mechanical, or plumbing work if the requirements of this provision are met:

1. The work is performed in the homestead and principal residence of the person; and the work does not include:
 - a. the main electric service;
 - b. the reclaiming and charging of a system containing refrigerant; or
 - c. the natural gas plumbing systems.
2. A person with a homestead permit may not allow or cause another person to work under the homestead permit. If the work done under the homestead permit is performed by anyone other than the person who obtained the permit, the building official may suspend or revoke a homestead permit.
3. A homestead permit may not be transferred to another person.
4. If requested by the building official or his designee, a person with a homestead permit must provide proof of residence and ownership.

R105.11 Registration. An air conditioning and refrigeration contractor shall register with the City before performing any work regulated by the Residential Code.

R106.1.4 Information for construction in flood hazard areas. For buildings and structures located in whole or in part in flood hazard areas as established by Table R301.2(1) (*Climatic and Geographic Design Criteria*), construction documents shall:

1. delineate flood hazard areas, 25-year floodplain boundaries and flood zones, and the design flood elevation, as appropriate;
2. show the elevation of the proposed lowest floor, including basement; in area of shallow flooding (AO zones), the height of the proposed lowest floor, including basement, above the highest adjacent grade; and
3. if design flood elevations are not included on the community's ultimate conditions floodplain models and maps or the Flood Insurance Rate Map (FIRM), utilize any design flood elevation and floodway data available from other sources.

R109.1.1 Foundation and footing inspection. Foundation and footings shall be inspected after poles or piers are set or trenches or basement areas are excavated, any required forms are erected, and any required reinforcing steel is in place and supported prior to the placing of concrete. A foundation inspection shall include excavations for thickened slabs intended for the support bearing walls, partitions, structural supports, or equipment and special requirements for wood foundations. The foundation and footings shall be inspected by a registered design professional for all permitted structures.

Exception: A registered design professional is not required to inspect an uncovered deck built independent of another structure if the deck is no more than 4 feet from the top of the decking measured vertically to the floor or grade at any point within 36 inches horizontally, is less than 200 square feet in floor area, and built in accordance to prescriptive methods of the Residential Code.

R109.1.7 Layout Inspection. A layout inspection is required after the permanent location of the structure is established and foundation forms or piers are erected and in place. Foundation piers may be placed before the layout and plumbing rough inspections. Slabs may not be placed until after the layout, plumbing rough, and plumbing per-pour inspections are approved. A layout inspection must be performed by a surveyor registered in the State of Texas. The surveyor shall provide an as-built survey with all new and existing improvements, legal boundaries, easements, encroachments, and all required dimensions.

R109.1.8 Framing pre-inspection. The framing pre-inspection shall be conducted by a registered design professional or an International Code Council (ICC) certified building inspector using the City-approved Residential Framing Checklist. The City-approved

Residential Framing Checklist is required for all new construction and as otherwise required by the building official; and must be provided to the building official. The person performing the inspection must sign and provide his or her license or registration number on the City-approved Residential Framing Checklist.

R109.1.9 Wallboard inspection. For new construction, the wallboard inspection shall be conducted by a registered design professional or an International Code Council (ICC) certified building inspector. For construction that is not new, the wallboard inspection may be performed by a registered design professional or an International Code Council (ICC) certified building inspector. The inspection must confirm that the wallboard is fastened to walls and ceilings in a manner that complies with the Residential Code.

R109.1.10 Required documentation. Approved plans and, if applicable, the Residential Framing Checklist must be available on-site in a weather-tight container when inspections occur.

R109.5 Residential change-out program. The building official may establish, by rule, an inspection program for the installation of certain mechanical and plumbing appliances in individually owned and occupied dwellings within the zoning jurisdiction of the City. Under the program, the building official shall inspect work performed for every fifth completeness form submitted on electric mechanical appliances. This program may apply to the following:

1. installing a water heater that does not exceed 100 gallons with a maximum of 75,000 BTU's or an instantaneous water heater;
2. replacing existing central heat and air system with or without ductwork;
3. replacing or adding to an existing unit of four or more supply and return duct runs;
4. replacing existing gas appliance; or
5. replacing existing self-contained packaged units.

R112.5 Modifications from flood plain management regulations. City Council decides a request for a variance to a flood plain regulation. The request for a variance must be decided in accordance with Appendix G, Section G105 (*Variances*) of the Building Code.

R115 Areas prone to flooding. A building or structure constructed in an area prone to flooding must comply with Section R322 (*Flood-Resistant Construction*) of the Residential Code and Appendix G, Section G105 (*Variances*) of the Building Code.

R202 Definitions.

25-YEAR FLOOD PLAIN means the greater of the following two areas:

1. an area within a flood plain subject to a four percent or greater chance of flooding in any year (25-year flood); or
2. an area with a flood plain subject to a four percent or greater chance of flooding in any year (25-year flood) based on projected full development in accordance with the City of Austin Drainage Criteria Manual.

BASE FLOOD means a flood having a one percent chance of being equaled or exceeded in any given year (100-year flood).

BASE FLOOD ELEVATION means the elevation of the base flood, including wave height, relative to the National Geodetic Vertical Datum (NGVD), North American Vertical Datum (NAVD) or other datum specified on the Flood Insurance Rate Map (FIRM).

DESIGN FLOOD means a flood associated with an area with a flood plain subject to a one percent or greater chance of flooding in any year (100-year flood) based on projected full development in accordance with the City of Austin Drainage Criteria Manual.

DESIGN FLOOD ELEVATION means the elevation of the design flood relative to the City of Austin vertical datum standard.

FLOOD OR FLOODING means a general and temporary condition of partial or complete inundation of normally dry land from the overflow of inland waters; or the unusual and rapid accumulation or runoff of surface waters from any source.

FLOOD DAMAGE-RESISTANT MATERIALS means construction material capable of withstanding direct and prolonged contact with floodwaters without sustaining any damage that requires more than cosmetic repair.

FLOOD HAZARD AREA means the greater of the following two areas:

1. an area within a flood plain subject to a one percent or greater chance of flooding in any year (100-year flood); or
2. an area with a flood plain subject to a one percent or greater chance of flooding in any year (100-year flood) based on projected full development in accordance with the City of Austin Drainage Criteria Manual.

FLOOD INSURANCE RATE MAP (FIRM) means an official map of a community on which the Federal Emergency Management Agency (FEMA) delineated both the special flood hazard areas and the risk premium zones applicable to the community.

FLOOD INSURANCE STUDY means the official report provided by the Federal Emergency Management Agency (FEMA) containing the Flood Insurance Rate Map (FIRM), the Flood Boundary Map, the water surface elevation of the base flood, and supporting technical data.

FLOODWAY means the channel of the river, creek, or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. An area with a flood plain subject to a four percent or greater chance of flooding in any year (25-year flood) based on a projected full development in accordance with the City of Austin Drainage Criteria Manual.

HEIGHT, BUILDING means the vertical distance from the average of the highest and lowest grades adjacent to the building to:

1. for a flat roof, the highest point of the coping;
2. for a mansard roof, the deck line;
3. for a pitched or hip roof, the average height of the highest gable; or
4. for other roof styles, the highest point of the building

LOFT means a mezzanine that must comply with Section R325.

REGULATORY FLOOD DATUM (RFD) means an established plane of reference from which elevations and depth of flooding may be determined for specific locations of the floodplain. It is the water level of the design flood plus a freeboard factor of one foot. Design flood plus freeboard equal Regulatory Flood Datum.

SPECIAL FLOOD HAZARD AREA means the land area subject to flood hazards and shown on a Flood Insurance Rate Map or other flood hazard map as Zone A, AE, A1-30, A99, AR, AO, AH V, VO, VE, or VI-30.

START OF CONSTRUCTION means the date a permit is issued for new construction or substantial improvements to existing structures if construction, repair, reconstruction, rehabilitation, addition, placement or other improvement starts within 180 days from the date the permit is issued. Construction starts when permanent construction of a building (including a manufactured home) is first placed and includes pouring a slab or footing, installing pilings, or constructing columns. Permanent construction does not include preparing land (clearing, excavating, grading, or filing); installing streets or walkways; excavating for a basement, footing, pier, or foundation, erecting temporary forms or installing accessory buildings not occupied as dwelling units or not part of the main building. For a substantial improvement, construction starts when a wall, ceiling, floor, or other structural part of a building is altered even if the alteration does not affect the external dimensions of the building.

SUBSTANTIAL DAMAGE means an amount of damage that results in restoration costs that equal or exceed 50 percent of the market value of the structure before the damage occurred.

SUBSTANTIAL IMPROVEMENT means any combination of repairs, alterations, reconstructions, rehabilitations, additions, or improvements to a building or structure during the immediate 10-year period with cumulative costs that equal or exceed 50 percent of the market value of the structure before the improvement or repair is started or, if the structure was damaged and is being restored, before the damage occurred. If the structure has sustained substantial damage, any repairs are considered substantial improvement regardless of the actual repair work performed. Substantial improvement does not include:

1. an improvement required to correct existing health, sanitary, safety code violations identified by the building official and that are the minimum necessary to assure safe living conditions; or
2. an alteration to a historic structure if the alteration will not disqualify the structure from continuing its designation as a historic structure, which means a structure that is listed or preliminarily determined eligible for listing in the National Register of Historic Places, determined by the Secretary of the United States Department of Interior as contributing to the historical significance of a registered historic district, or a district preliminarily determined to qualify as a historic district, or designated as historic under a State of Texas or local historic preservation program that is approved by the United States Department of the Interior.

VISITABLE DWELLING means a dwelling subject to R320 (*Visitability*).

TABLE R301.2(1) CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

Ground Snow Load	Wind Design				Seismic Design Category	Subject to Damage From			Winter Design Temp	Ice Barrier Underlayment Required	Flood Hazard	Air Freezing Index	Mean Average Temp
	Wind Speed	Topo-Graphic effects	Special Wind Region	Wind-borne debris zone		weathering	Frost Line Depth	Termites					
5	115	NO	NO	NO	A	Negligible	12 in (305 mm)	YES	28	NO	Construction Commenced After 9/2/1981	30	68.1

R301.2.4 Floodplain construction. A building or structure constructed in whole or in part in a flood hazard area (including A or V Zones) as established in Table R301.2(1) and substantial improvement and restoration of substantial damage of a building or structure in a flood hazard area shall be designed and constructed according to Section R322 of the Residential Code and Appendix G (*Flood-Resistant Construction*) of the Building Code. A building or structure located in more than one flood hazard area shall comply with the provisions associated with the most restrictive flood hazard area. A

building or structure located in whole or in part in an identified floodway shall be designed and constructed according to ASCE 24.

R302.1 Exterior walls. An exterior wall of a dwelling must be constructed and its projections, openings, and penetrations must comply with Table R302.1(1). A dwelling equipped throughout with an automatic sprinkler system that is installed consistent with Section P2904 must comply with Table 302.1(2).

Exceptions:

1. A wall, projection, opening, or penetration of a wall that is perpendicular to the line used to determine fire separation distance.
2. A wall of a dwelling and an accessory structure located on the same lot.
3. The wall of a detached tool or storage shed, playhouse, or similar structures that is exempt from the permit requirement is not required to provide wall protection based on location of the lot. A projection beyond an exterior wall shall not extend over the lot line.
4. A detached garage that is accessory to a dwelling and located within 2 feet (610 mm) of a lot line may have roof eave projections that do not exceed 4 inches (102 mm).
5. A foundation vent installed consistent with the Residential Code is permitted.

R320 VISITABILITY.

R320.1 Applicability. Section R320 (*Visitability*) applies to the construction of new dwelling units that are subject to the Residential Code and include habitable space on the first floor. Section R320 (*Visitability*) does not apply to remodels or additions to dwellings.

R320.2 Compliance required at plan review. A permit application for a visitable dwelling must include detailed plans prepared by a registered design professional or other certified professional that demonstrate compliance with Section R320 (*Visitability*).

R320.3 Visitable bathrooms. A visitable dwelling must be designed and constructed with at least one bathroom group or a half bath on the first floor that meets the following requirements:

1. a clear opening of at least 30 inches;
2. lateral two-inch by six-inch or larger nominal wood blocking is installed flush with stud edges of bathroom walls; and
3. except for the portion of the wall located directly behind the lavatory, the centerline of the blocking is 34 inches from and parallel to the interior floor level.

R320.4 Visitable light switches, receptacles, and environmental controls. The first floor of a visitable dwelling must meet the following requirements:

1. light switches and environmental controls are less than 48 inches above the interior floor level; and
2. except for floor outlets and receptacles, outlets and receptacles are at least 15 inches above the interior floor level.

R320.5 Visitability bathroom route. A bathroom group or half bathroom designated for visitability under R320.3 (*Visitable Bathrooms*) must be accessible by a route with a clear opening of at least 32 inches that begins at the visitable entrance designated under R320.6 (*Visitable Dwelling Entrance*) and continues through the living room, dining room, and kitchen, and is level with ramped or beveled changes at door thresholds.

Exception: Provided an alternate route is available, a visitable route is not required through an area located on a split-level or sunken floor.

R320.6 Visitable dwelling entrance. A visitable dwelling must include at least one no-step entrance with a beveled threshold of one-half inch or less and a door with a clear width of at least 32 inches. This entrance may be located at the front, rear, side, or in the garage or carport of the dwelling.

R320.7 Exterior visitable route. An entrance that complies with R320.6 (*Visitable Dwelling Entrance*) must be accessible using a route with a cross slope of no greater than two percent (1:50) that originates from a garage, driveway, public street, or public sidewalk. An exterior route that includes a ramp must comply with the Residential Code.

R320.7.1 Waiver of exterior visitable route provision for certain properties. The requirements of R320.7 do not apply to a lot with 10 percent or greater slope that existed prior to development; or to a property that requires the use of switchbacks to comply with R320.7.

R322.1 General. Within a flood hazard area, new construction of a building, addition or alteration to a building or structure, including portions of a building or structure, and substantial improvements or restoration of substantial damage must be designed and constructed to resist the effects of flood hazards and flood loads.

R322.1.4 Establishing the design flood elevation. The design flood elevation defines areas prone to flooding and describes, at a minimum, the base flood elevation at the depth of peak elevation of flooding with the ultimate development of the watershed, which has a one percent (100-year flood) or greater chance of being equaled or exceeded in any given year.

R322.1.4.1 Determination of design flood elevation. If a design flood elevation is not specified, the building official may require the applicant to:

1. obtain and reasonably use data available from a federal, state, or other source; or

2. determine, using a professional engineer registered with the State of Texas, the design flood elevation in accordance with accepted hydrologic and hydraulic engineering practices that define special flood hazard areas. Studies, analyses, and computations must reflect currently accepted engineering practice and must be submitted to the building official and must include sufficient detail to allow thorough review and approval.

R322.1.4.2 Determination of impacts. In a riverine flood hazard area where design flood elevations are specified but floodways have not been designated, an applicant must demonstrate that the effect of the proposed building or structure on design flood elevations, including fill, when combined with all other existing and anticipated flood hazard area encroachments, will not increase the design flood elevation at any point within the jurisdiction.

R322.1.5 Lowest floor. The lowest floor shall be the floor of the lowest enclosed area, including basement. The lowest floor does not include any unfinished flood-resistant enclosure that is used only for vehicle parking, building access, or limited storage, unless the enclosure is built to cause the building or structure to violate this section.

Exception: An unfinished enclosure used for storage of property, materials, or equipment that constitute a safety hazard if contacted by flood waters is a lowest floor.

R322.2 Establishment of flood hazard areas (including A Zones). A flood hazard area is

1. a flood hazard area identified by the Federal Emergency Management Agency (FEMA) in a certain scientific and engineering report entitled "The Flood Insurance Study for Austin, Texas," dated September 26, 2008, with accompanying Flood Insurance Risk Maps and Flood Boundary-Floodway Maps (FIRM and FBFM), related supporting data, and any amendments or revisions; or
2. a 100-year or 25-year floodplain based on projected full development as specified in the City Code and Drainage Criteria Manual.

R322.2.1 Elevation requirements.

1. Unless otherwise specified in the Land Development Code, the lowest floor of a building or structure must be elevated a minimum of one foot above the design flood elevation.
2. Where the design flood elevation or other elevation requirement specifies, a minimum freeboard of one foot shall be added.
3. In areas of shallow flooding (AO Zones), the lowest floor (including a basement) of a building or structure must be elevated higher than the highest adjacent grade as the depth number specified in feet (mm) on the FIRM plus one foot, or at least two feet (610 mm) if a depth number is not specified.

4. A basement floor that is below grade on all sides must be elevated at least one foot above the design flood elevation.

Exception: An enclosed area, including a basement, which is below the design flood elevation but not below grade on all sides must meet the requirements in Section R322.2.2 (*Enclosed area below design flood elevation*).

R322.2.2 Enclosed area below design flood elevation. An enclosed area, including a crawl space, that is below the regulatory flood datum must:

1. be used only for parking vehicles, building access or storage excluding property, material, or equipment that may constitute a safety hazard when contacted by flood waters;
2. include flood openings that meet the following criteria:
 - 2.1 the enclosed area must have a minimum of two openings located on different sides of the enclosed area; if a building includes more than one enclosed area below the design flood elevation, each area must have openings on exterior walls;
 - 2.2. the total net area of all openings must be at least 1 square inch (645 mm²) per square foot (0.093 m²) of the enclosed area, or the openings are designed and the construction documents state that the design and installation will provide for the equalization of hydrostatic flood forces on exterior walls by allowing for the automatic entry and exist of floodwaters;
 - 2.3 the bottom of each opening is 1 foot (305 mm) or less above adjacent ground level;
 - 2.4 each opening is at least 3 inches (76 mm) in diameter;
 - 2.5 any louvers, screens or other opening covers allow the automatic flow of floodwaters into and out of the enclosed areas;
 - 2.6 a door or window that does not meet the requirements in 2.1 through 2.5 does not comply with this section; and
 - 2.7 constructed of flood damage-resistant materials.

R322.2.3 Foundation design and construction. A foundation wall in a building or structure erected in a flood hazard area must meet the requirements in Chapter 4 (*Foundations*).

Exception: Unless designed consistent with Section R404 (Foundation and Retaining Walls):

1. the unsupported height of a 6-inch (152 mm) plain masonry wall shall not exceed 3 feet (914 mm);
2. the unsupported height of an 8-inch (203 mm) plain masonry wall shall not exceed 4 feet (1219 mm); and
3. the unsupported height of an 8-inch (203 mm) reinforced masonry wall shall not exceed 8 feet (2438 mm).

For purposes of this exception, unsupported height is measured from the finished grade of the under-floor space to the top of the wall.

R322.2.5 Provisions of safe refuge.

1. A building or structure constructed in a flood hazard area where the ground surface is below the design flood elevation or where flood water velocities at the building may exceed five feet per second shall provide an enclosed refuge space one foot or more above the design flood elevation with sufficient area to allow an occupancy load of a minimum of 12 square feet per person. The refuge space shall be provided to an exterior platform and stairway not less than three feet wide.
2. An existing building or structure in a flood hazard area that is enlarged, extended, or altered or where a change of use or occupancy is made must comply with the requirements in Subsection 1.
3. Regardless of the structure or space classification, a floor level or portion of a building or structure that is lower than one foot above the design flood elevation shall not be used for a residential use or for storage of property, material, or equipment that may constitute a safety hazard when contacted by flood waters.

R322.2.6 Means of egress. Unless otherwise approved by the building official, normal access to the building shall be by direct connection with an area that is a minimum of one foot above the design flood elevation.

R326 POOLS AND SPAS

R326.1 General. This section applies to barriers for pools and spas. The design controls included in this section are intended to provide protection against potential drowning and near drowning by restricting access to pools and spas. The requirements are intended to result in an integrated level of protection against potential drowning through the use of physical barriers and warning devices.

Exception:

1. A spa or hot tub with a lockable safety cover that complies with ASTM F 1346.
2. A swimming pool with a powered safety cover that complies with ASTM F 1346.

R326.2 Outdoor swimming pools and spas. An outdoor swimming pool, spa, or indoor swimming pool must be surrounded by a barrier that complies with R326.2.1 through R326.2.7.

R326.2.1 Barrier height and clearances. The height of a barrier and vertical clearance must comply with the following:

1. for the entire length of the barrier and a distance of 3 feet (914 mm) measured horizontally from the outside of the required barrier, the top of the barrier must be

- at least 48 inches (1219 mm) above grade measured from the side of the barrier that faces away from the pool or spa;
2. the vertical clearance between grade and the bottom of the barrier cannot exceed two inches (51 mm) for grade surfaces that are not solid, such as grass or gravel, measured on the side of the barrier that faces away from the pool or spa;
3. the vertical clearance between a surface below the barrier to a solid surface, such as concrete, and the bottom of the required barrier cannot exceed four inches (102 mm) measured on the side of the required barrier that faces away from the pool or spa; and
4. if the top of the pool or spa is above grade, the barrier must be installed on grade or must be mounted on top of the pool or spa structure and, when the barrier is mounted on the top of the pool or spa, the vertical clearance between the top of the pool or spa and the bottom of the barrier cannot exceed four inches (102 mm).

R326.2.2 Openings. An opening in a barrier must be designed and constructed to prevent a 4-inch-diameter (102 mm) sphere from passing through the opening.

R326.2.3 Solid barrier surfaces. Except for normal construction tolerances and tooled masonry joints, a solid barrier without an opening cannot contain indentations or protrusions that can be used as handholds or footholds.

R326.2.4 Mesh fence as a barrier. A mesh fence that is not a chain link fence must be installed consistent with the manufacturer's instructions and must comply with the following:

1. the bottom of the mesh fence is not more than one inch (25 mm) above the deck or installed surface or grade;
2. the maximum vertical clearance from the bottom of the mesh fence and the solid surface shall not allow the fence to be lifted more than four inches (102 mm) from grade or decking;
3. the fence must be designed and constructed to prevent a 4-inch-diameter (102 mm) sphere from passing under any mesh panel and the maximum vertical clearance from the bottom of the mesh fence and the solid surface shall not be more than four inches (102 mm) from grade or decking;
4. each barrier section must be attached with an attachment device at a height at least 45 inches (1143 mm) above grade and a common attachment device provides the security equal to or greater than that of a hook-and-eye type latch incorporating a spring-actuated retaining lever like a safety gate hook;
5. a hinged gate must comply with R326.3;
6. a patio deck sleeve, such as a vertical post receptacle, placed inside a patio surface must be made from a nonconductive material; and
7. a mesh fence cannot be installed on top of on-ground residential pools.

R326.2.5 Closely spaced horizontal members. The distance between the tops of the horizontal members of a barrier composed of horizontal and vertical members is less than 45 inches (1143 mm), the horizontal members must be located on the pool or spa side of the fence. Vertical members cannot be spaced more than 1 ¾ inches (44 mm) in width. If the vertical members include decorative cutouts then the spacing within the cutouts cannot be more than 1 ¾ inches (44 mm) in width.

R326.2.6 Widely spaced horizontal members. The distance between the tops of the horizontal members of a barrier composed of horizontal and vertical members is 45 inches (1143 mm) or more, spacing between the vertical members cannot be more than 4 inches (102 mm). If the vertical members include decorative cutouts then the interior width of the cutouts shall not be more than 1 ¾ inches (44 mm).

R326.2.7 Chain link dimensions. An opening formed by a chain link fence cannot exceed 1 ¾ inches (44 mm). If the fence includes slats fastened at the top and bottom, which reduce the openings, the openings cannot exceed 1 ¾ inches (44 mm).

R326.2.8 Diagonal members. For a barrier composed by diagonal members, the maximum opening formed by the diagonal members cannot exceed 1 ¾ inches. The angle of diagonal members cannot be more than 45 degrees (0.79 rad) from vertical.

R326.2.9 Clear zone. A clear zone that is 36 inches (914 mm) or more is required between the exterior of the barrier and any permanent structures or equipment including pumps, filters, and heaters that can be used to climb the barrier.

R326.2.10 Poolside barrier setbacks. The pool or spa side of the required barrier must be 20 inches (508 mm) or more from the water's edge.

R326.3 Gates. An access gate must comply with the requirements in R326.3.1 through R326.3.3 and must be equipped to accommodate a locking device. A gate used for pedestrian access must open outward away from the pool or spa and be self-closing and include a self-latching device.

R326.3.1 Utility or service gates. A gate not intended for pedestrian use, such as a utility or service gate, must remain locked when not being used.

R326.3.2 Double or multiple gates. At least one leaf of a double or multiple gate must be secured in place and the adjacent leaf must be secured with a self-latching device. The openings between the gate and barrier cannot exceed ½ inch (12.7 mm) and cannot be within 18 inches (457 mm) of the latch release mechanism. A self-latching device must comply with the requirements in R326.3.3.

R326.3.3 Latches. If the release mechanism of a self-latching device is located less than 54 inches (1372 mm) from grade, the release mechanism must be located on the pool or

spa side of the gate, at least 3 inches (76 mm) below the top of the gate, and the gate and barrier shall not have openings greater than ½ inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.

R326.3.4 Structure wall as a barrier. If a wall of a dwelling or structure is part of the barrier and the windows and doors in the wall provide direct access to the pool or spa then one of the following applies:

1. An operable window with a sill height below 48 inches (1219 mm) from the indoor finished floors and a door must have an alarm listed and labeled, in accordance with UL 2017, as a water hazard entrance alarm that produces an audible warning when the window, door, or the screen is opened. The operable parts of the alarm deactivation switches must be located 54 inches (1372 mm) or more above the finished floor.

Exception: An operable window with an exterior sill height more than 72 inches (1829 mm) above the finished grade or other surface below is not required to have an alarm.

2. A pool or spa safety cover that is listed and labeled, in accordance with ASTM F 1346, is installed.

3. An approved means of protection, such as self-closing doors with self-latching devices, that provides a degree of protection that is the same as or better than the protection afforded by Item 1 or 2 is installed.

R326.3.5 On-ground residential pool structure as a barrier. An on-ground residential pool wall structure or a barrier mounted on top of an on-ground residential pool wall structure qualify as a barrier if the following conditions are met:

1. the pool wall serves as the barrier, the bottom of the wall is on grade, the top of the wall is 48 inches (1219 mm) or more above grade for the entire perimeter of the pool, the wall complies with R326.2, and the pool manufacturer intends for the wall to serve as a barrier;

2. the barrier is mounted on top of the pool wall, the top of the barrier is 48 inches (1219 mm) or more above grade for the entire perimeter of the pool, and the wall and barrier on top of the wall comply with R326.2.;

3. ladders or steps used to access the pool can be secured, locked, or removed to prevent access unless the ladder or steps are surrounded by a barrier that complies with R326.2;

4. openings created by securing, locking, or removing the ladder and steps prevent a 4-inch-diameter (102 mm) sphere from passing through the opening; or

5. barriers mounted on top of on-ground residential pool walls are installed consistent with the pool manufacturer's instructions.

R326.3.6 Natural barriers. A barrier is not required between the natural body of water shoreline and the pool or spa if the pool or spa abuts the edge of a lake or other natural

body of water, public access is not permitted or allowed along the shoreline, and required barriers extend to and beyond the water's edge a minimum of 18 inches (457 mm).

R326.3.7 Natural topography. Natural topography that prevents direct access to the pool or spa area includes, but is not limited to, mountains and natural rock formations. A natural barrier approved by the City Council is acceptable provided that the degree of protection meets or exceeds the protection afforded by the requirements in R326.3.2 through R326.3.5.

R326.4 Applications, permits, and enforcement. The building official is authorized to receive applications, review construction documents, and issue permits for the erection, alteration, demolition, and moving of pools, spas, and related mechanical, electrical, and plumbing systems. The building official is authorized to inspect the premises for which such permits have been issued and to enforce Residential Code requirements related to pools and spas.

AJ102.4.3 Emergency escape and rescue openings. A replacement window is exempt from the maximum sill height requirements in R310.1, R310.2.1, and R310.2.2 if the window must provide emergency escape or be a rescue opening and the following conditions are met:


1. the replacement window is the manufacturer's largest standard size that will fill within the existing frame or existing rough opening and the replacement window is the same operating style as the existing window or a style that provides for an equal or greater window opening than the existing window;
2. the replacement window is not part of a change of occupancy;
3. the window opening control device complies with ASTM F 2090; and
4. the smoke alarm and carbon monoxide alarm is installed consistent with the requirements for new construction.

PART 2. This ordinance takes effect on July 5, 2017.

PASSED AND APPROVED

_____, April 6, 2017

APPROVED:



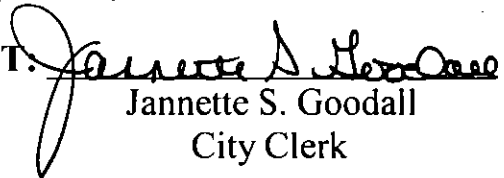
Anne L. Morgan
City Attorney

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Steve Adler
Mayor

ATTEST:



Jannette S. Goodall
City Clerk