

TITLE 748. UNIFORM BUILDING CODE COMMISSION
CHAPTER 20. ADOPTED CODES
SUBCHAPTER 1. [RESERVED]
SUBCHAPTER 3. [RESERVED]
SUBCHAPTER 5. IRC 2009

748:20-5-1. Adoption of IRC 2009

The Uniform Building Code Commission hereby adopts the International Residential Code (IRC) 2009 as amended and modified in this Subchapter to be the minimum standards for residential construction within the State of Oklahoma for one and two family dwellings and townhouses pursuant to 59 O.S. § 1000.23.

748:20-5-2. Effect of Adoption

The International Residential Code (IRC) 2009, as amended and revised by these rules, are hereby established and adopted as the statewide minimum standards for residential building construction for one and two family dwellings and townhouses in Oklahoma pursuant to 59 O.S. § 1000.23, and may only be amended or altered by other jurisdictions pursuant to Oklahoma law and the administrative rules of the Oklahoma Uniform Building Code Commission as set forth in Title 748, Chapter 15 of the Oklahoma Administrative Code.

748:20-5-3. IRC 2009 Appendices

- (a) None of the appendices of the IRC 2009 have been adopted by the Commission for inclusion in the minimum standards for residential construction in the State of Oklahoma.
- (b) The Commission hereby creates "Appendix R Automatic Fire Systems".
- (c) The Commission hereby creates "Appendix S Energy Efficiency".
- (d) The Commission has removed IRC 2009 R313.2 and R313.2.1 from Chapter 3 of the IRC 2009 and relocated those sections to Appendix R Automatic Fire Systems.
- (e) The Commission has removed IRC 2009 N1101.9 from Chapter 11 of the IRC 2009 and relocated this section to Appendix S Energy Efficiency
- (f) Appendices A through S are not adopted as the minimum standards for residential construction within the State of Oklahoma. However, other jurisdictions within this State may adopt any or all of said appendices in accordance with 59 O.S. § 1000.29.

748:20-5-4. IRC 2009 Provisions Adopted and Modified

All chapters and provisions within chapters, including exceptions, of the IRC 2009 not specifically addressed within these rules as being modified, deleted, moved or removed are hereby adopted without modification as the minimum standards for residential construction within the State of Oklahoma for one and two family dwellings and townhouses pursuant to 59 O.S. § 1000.23. Chapters and provisions within chapters, including exceptions adopted with modifications are specifically addressed in these rules.

748:20-5-5. IRC 2009 Chapter 1 Scope and Administration

Chapter 1 of the Oklahoma adopted IRC 2009, with the following Preamble at the very beginning of the chapter:

(1) Pursuant to 59 O.S. § 1000.23, the Uniform Building Code Commission has adopted the 2009 International Residential Code as amended and revised by the Commission (IRC 2009), as the minimum standards to be used by all entities for residential construction in jurisdictions throughout the State of Oklahoma. However, the Commission’s adoption of Chapter 1 “Scope and Administration” of the 2009 IRC is for continuity purposes and the Commission’s adoption of Chapter 1 recognizes the methods of best practice in fully implementing the minimum standards for residential construction.

(2) All provisions of the adopted IRC 2009, including Chapter 1, as amended and revised by the Commission, are hereby established and adopted as the statewide minimum standards for residential building construction for one and two family dwellings and townhouses in Oklahoma pursuant to 59 O.S. § 1000.23, which may only be amended or altered pursuant to Oklahoma law and the administrative rules of the Oklahoma Uniform Building Code Commission as set forth in Title 748, Chapter 15 of the Oklahoma Administrative Code. However, the provisions of Chapter 1 adopted herein are only intended to be in force and effect to the extent that the respective provisions do not conflict with State law or the lawful exercise of code administration and enforcement jurisdiction by entities empowered to do so pursuant to applicable law.

(3) The Commission’s adoption of Chapter 1 in this manner is made with the recognition that the legal authority granting state and local code administration and enforcement jurisdictions the power and discretion to administer and enforce codes arises from Oklahoma laws governing those jurisdictions. Furthermore, the Commission also recognizes that many state and local code administration and enforcement jurisdictions have already created, or have the lawful authority to create, departments, offices and administrative policies pursuant to various applicable laws and other adopted model codes with “Scope and Administration” provisions similar to Chapter 1 of the adopted IRC 2009.

(4) This limited adoption of Chapter 1 is made in recognition of the authority and discretion possessed by jurisdictions to administer and enforce building codes. Exercising such authority and jurisdiction in a manner inconsistent with Chapter 1 must be supported by Oklahoma law. Code administration and enforcement jurisdictions shall not use the Commission’s limited adoption of Chapter 1 to circumvent the remainder of the requirements established by the Oklahoma adopted IRC 2009 and the Commission will strongly oppose any such practice.

748:20-5-6. IRC 2009 Chapter 3 Building Plans

Chapter 3 is adopted with modifications as follows:

(1) Section R302.1 Table R302.1 Exterior Walls has been modified for minimum fire separation distance for walls and projections. Walls have been changed from 5 feet to 3 feet. Projections have been changed from greater than or equal to 2 feet to 5 feet to greater than or equal to 2 feet to 3 feet.

(2) Section R311.7.4.1 Riser Heights. This section has been modified and now requires initial measurements to take place at rough-in and allows for a top and bottom riser height variance at the final inspection. This section shall read: The maximum riser height shall be 7 3/4 inches (196 mm). The riser shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm) at rough-in. Top and bottom riser may vary by 3/4 inch at final inspection, not to exceed 7 3/4 of an inch (196mm).

(3) Section R313.2 One- and two-family dwellings automatic fire systems. This section has been moved to Appendix R, Automatic Fire Systems of the IRC 2009 and is not adopted as a minimum standard for residential construction within the State of Oklahoma.

(4) Section R313.2.1 Design and installation. This section has been moved to Appendix R, Automatic Fire Systems of the IRC 2009 and is not adopted as a minimum standard for residential construction within the State of Oklahoma.

(5) Section R315.1 Carbon monoxide alarms. This section has been modified to include the following exception: If a residence with an attached garage has a sealed door between the residence and the garage; and no fuel burning appliances in the residence, then carbon monoxide detection is not required within the residence.

(6) Section R323.1 General. This section has been modified to provide for more than one standard to be utilized to build a storm shelter. This section has been modified to read: This section applies to the construction of storm shelters when constructed as separate detached buildings or when constructed as safe rooms within buildings for the purpose of providing safe refuge from storms that produce high winds, such as tornados and hurricanes. In addition to other applicable requirements in this code, storm shelters shall be constructed in accordance with one of the following: ICC/NSSA 500 or FEMA 320 or other equivalent engineered system.

748:20-5-7. IRC 2009 Chapter 4 Foundations

Chapter 4 is adopted with modifications as follows:

(1) Section R402.2 Concrete. This section has been modified to include the following exception: Interior concrete slabs on grade and enclosed garage slabs are not required to be air entrained.

(2) Section R403.1.6 Foundation anchorage. This section has been modified to include the following exception: Wood sole plates of braced wall panels at building interiors on monolithic slabs may be anchored using connector(s) with a shear capacity of 2300 pounds and a tensile capacity of 800 pounds over a maximum span of 6 feet.

(3) Section R406.2 Concrete and masonry foundation waterproofing. This section has been modified to include an additional option for waterproofing: Bentonite.

748:20-5-8. IRC 2009 Chapter 5 Floors

Chapter 5 is adopted with modifications as follows: Section R506.2.3 Vapor retarder. This section has been modified to allow for other industry accepted vapor retarders installed according to the manufacture's specifications. This section has been modified to read: A 6 mil (0.006 inch; 152 micrometers) polyethylene sheeting, other industry accepted vapor retarder products installed per manufacturer specifications or approved vapor retarder with joints lapped not less than 6 inches (152 mm) shall be placed between the concrete floor slab and the base course or the prepared subgrade where no base course exists. The remainder of this section, including exceptions, is adopted without modification.

748:20-5-9. IRC 2009 Chapter 6 Wall Construction

Chapter 6 is adopted with modifications as follows:

(1) Section R602.4 Interior load-bearing walls. This section has been modified to clarify that the section is limited to stud spacing and heights per tables R602.3(5) and R602.3.1. This section has been modified to read: Interior load-bearing walls shall be constructed, framed and fireblocked as specified for exterior walls. Table R602.3(5) shall be used to establish stud

spacing of walls up to 10 feet (3048 mm) high, and Table R602.3.1 shall apply to walls over 10 feet (3048 mm) high.

(2) Section R602.10.6 Braced wall panel connections. This section has been modified to include the following addition: Wood sole plates of braced wall panels at building interiors on monolithic slabs may be anchored using connector(s) with a shear capacity of 2300 pounds and a tensile capacity of 800 pounds over a maximum span of 6 feet.

748:20-5-10. IRC 2009 Chapter 7 Wall Covering

Chapter 7 is adopted with modifications as follows: Section 703.8 Flashing. This section has been modified to clarify that 6-mil polyethylene sheeting is an approved corrosion-resistant flashing in certain circumstances. The first paragraph of this section has been modified to read: Approved corrosion-resistant flashing shall be applied shingle-fashion in a manner to prevent entry of water into the wall cavity or penetration of water to the building structural framing components. 6-mil polyethylene sheeting is an approved corrosion-resistant flashing when not exposed to UV rays. Self-adhered membranes used as flashing shall comply with AAMA 711. The flashing shall extend to the surface of the exterior wall finish. Approved corrosion-resistant flashings shall be installed at all of the locations listed in IRC 2009, Section 703.8 Flashing. The remainder of this section is adopted without modification.

748:20-5-11. IRC 2009 Chapter 8 Roof-Ceiling Construction

Chapter 8 is adopted with modifications as follows:

(1) Section 801.3 Roof drainage. This section has been stricken from the code.

(2) Section 802.3 Framing details. This section has been modified to provide a definition of a brace and provide an exception to the section. It has been modified to read: Rafters shall be framed to ridge board or to each other with a gusset plate as a tie. Ridge board shall be at least 1-inch (25 mm) nominal thickness and not less in depth than the cut end of the rafter. At all valleys and hips there shall be a valley or hip rafter not less than 2-inch (51 mm) nominal thickness and not less in depth than the cut end of the rafter. Hip and valley rafters shall be supported at the ridge by a brace to a bearing partition or be designed to carry and distribute the specific load at that point. Definition of brace includes: 1. a triangular configuration of framing members with a horizontal tie and rafter members, 2. king post or similar. Where the roof pitch is less than three units vertical in 12 units horizontal (25-percent slope), structural members that support rafters and ceiling joists, such as ridge beams, hips and valleys, shall be designed as beams. Exception: This exception helps address many situations where due to the design, building bracing is not achievable. This exception shall read: The use of a "Blind Valley", also known as a "Farmers Valley" or "California Valley" will be allowed. In this type of valley the main roof is framed as usual, it may or may not be sheathed, and the intersecting roof is framed on top of the main roof. The two valley plates or sleeps lie on top of the main roof rafters or sheathing and provide a nailing base for the jack rafters and ridge board of the intersecting roof.

(3) Section 802.5.1 Purlins. This section has been modified to include the following exception: Braces may be spaced not more than 6 feet (1829 mm) on center if: 1. the purlin brace is 2-inch by 6-inch (51 mm by 153 mm) 2. Purlins shall be sized one nominal size larger than the rafter they support, and 3. unbraced length of braces shall not exceed 8 feet (2438 mm).

748:20-5-12. IRC 2009 Chapter 11 Energy Efficiency

Chapter 11 is adopted with modifications as follows:

(1) Section N1101.9 Certificate. This section has been moved to the Appendix S of the IRC 2009 and is not adopted as a minimum standard of residential construction within the State of Oklahoma.

(2) Section N1102.4.3. Fireplaces. This section has been modified to remove the requirement of gasketed doors and will now read: New wood-burning fireplaces shall have outdoor combustion air.

(3) Section N1103.1.1 Programmable thermostat. This section has been stricken from the code.

(4) Section N1103.2.2 Sealing. This section has been modified to include the following exception: Visual inspection may be used instead of the rough-in test and post construction test.

(5) Section N1103.8.3 Pool covers. This section has been modified to remove the requirement for heated pools to have a vapor retardant pool cover on or at the water surface. This section will now read: Pools heated to more than 90 degrees Fahrenheit (32 degrees Celsius) shall have a pool cover with a minimum insulation value of R-12.

(6) Section N1104.1 Lighting equipment. This section has been modified to include the following exception: Can or recessed lights are exempt from this section of the code.

748:20-5-13. IRC 2009 Chapter 15 Exhaust Systems

Chapter 15 is adopted with modifications as follows: Section M1502.3 Duct termination. This section has been modified and a requirement that exhaust ducts not terminate within 3 feet of condensing units has been added. This section has been modified to read: Exhaust ducts shall terminate on the outside of the building. Exhaust duct terminations shall be in accordance with the dryer manufacturer's installation instructions. If the manufacturer's instructions do not specify a termination location, the exhaust duct shall terminate not less than 3 feet (914 mm) in any direction from the openings into buildings. Exhaust duct terminations shall be equipped with a backdraft damper. Additionally, exhaust shall not terminate within 3 feet (914 mm) of condensing units. Screens shall not be installed at the duct termination.

748:20-5-14. IRC 2009 Chapter 24 Fuel Gas

Chapter 24 is adopted with modifications as follows:

(1) Section G2406.3 (303.6) Outdoor locations. This section has been modified to require protection for outdoor appliances be approved. This section has been modified to read: Appliances installed in outdoor locations shall be either listed for outdoor installation or provided with approved protection from outdoor environmental factors that influence the operability, durability and safety of the appliance.

(2) Tables G2413.4(3), G2413.4(4). These tables have been stricken from the code.

(3) Section G2414.5.2 Copper tubing. This section has been modified to read: Copper tubing shall be prohibited for natural gas installations, but shall be allowed for liquefied petroleum gas installations.

(4) The International Code Council Emergency Amendment dated September 27, 2010 has been adopted. This amendment replaces in their entirety Sections 406.7 of the IFGC and G2417.7 of the IRC 2009.

748:20-5-15. IRC 2009 Chapter 25 Plumbing Administration

Chapter 25 is adopted with modifications as follows:

(1) P2503.4 Building sewer test. This section has been modified to note that the building sewer test is only necessary when the local authority having jurisdiction requires the testing to be done. This section has been modified to read: When required by local authority having jurisdiction, the building sewer shall be tested by insertion of a test plug at the point of connection with the public sewer and filling the building sewer with water, testing with not less than 10-foot (3048 mm) head of water and be able to maintain such pressure for 15 minutes.

(2) P2503.6 Shower liner test. This section has been modified to require this test at plumbing final. This section has been modified to read: Where shower floors and receptors are made water tight by the application of materials required by Section P2709.2, the completed liner installation shall be tested at plumbing final. The pipe from the shower drain shall be plugged water tight for the test. The floor and receptor area shall be filled with potable water to a depth of not less than 2 inches (51 mm) measured at the threshold. Where a threshold of at least 2 inches high does not exist, a temporary threshold shall be constructed to retain the test water in the lined floor or receptor area to a level not less than 2 inches deep measured at the threshold. The water shall be retained for a test period of not less than 15 minutes and there shall be no evidence of leakage.

(3) P2503.7 Water-supply system testing. This section has been modified to delete the word "plastic" and replace it with the terms "PVC" and "CPVC." This section shall read: Upon completion of the water-supply system or a section of it, the system or portion completed shall be tested and proved tight under a water pressure of not less than the working pressure of the system or, for piping systems other than PVC or CPVC, by an air test of not less than 50 psi (345 kPa). This pressure shall be held for not less than 15 minutes. The water used for tests shall be obtained from a potable water source.

748:20-5-16. IRC 2009 Chapter 26 General Plumbing Requirements

Chapter 26 is adopted with modifications as follows: Section P2603.6.1 Sewer depth. This section has been modified to include a depth for the septic tank connection unless otherwise approved by the authority having jurisdiction. This section has been modified to read: Building sewers that connect to private sewage disposal systems shall be a minimum of 12 inches (305 mm) or as approved by the authority having jurisdiction below finished grade at the point of septic tank connection. Building sewers shall be a minimum of 12 inches (305 mm) below grade.

748:20-5-17. IRC 2009 Chapter 27 Plumbing Fixtures

Chapter 27 is adopted with modifications as follows:

(1) Section P2704.1 General. This section has been modified to allow installation of slip joints anywhere between the fixture and trap outlet. It has been modified to read: Slip joints shall be made with an approved elastomeric gasket and shall be installed from fixture to trap outlet. Fixtures with concealed slip-joint connections shall be provided with an access panel or utility space at least 12 inches (305 mm) in its smallest dimension or other approved arrangement so as to provide access to the slip connections for inspection and repair.

(2) Section P2709.2 Lining required. This section has been modified and it has been noted that it is only effective where required. The first paragraph of this section has been modified to read: Where required, the adjoining walls and floor framing enclosed on-site built-up shower receptors shall be lined with one of the materials listed in IRC 2009, Section P2709.2 Lining required. The remainder of this section is adopted without modification.

(3) Section P2715.1 Laundry tray waste outlet. This section has been modified and the word tub has been replaced with the word tray. This section has been modified to read: Each compartment of a laundry tray shall be provided with a waste outlet not less than 1 1/2 inches (38 mm) in diameter and a strainer or crossbar to restrict the clear opening of the waste outlet.

748:20-5-18. IRC 2009 Chapter 28 Water Heaters

Chapter 28 is adopted with modifications as follows:

(1) Section P2801.5 Required pan. This section has been modified to specify that a pan is required for tank type water heaters or hot water storage tanks only. This section has been modified to read: Where tank type water heaters or hot water storage tanks are installed in locations where leakage of the tanks or connections will cause damage, the tank or water heater shall be installed in a galvanized steel pan having a material thickness of not less than 0.0236 inch (0.6010 mm) (No 24 gage), or other pans approved for such use. Listed pans shall comply with CSA LC3.

(2) Section P2803.1 Relief valves required. This section has been modified to specify the relief valve requirements and specifications in this section are for tank type appliances and equipment only. The first paragraph of this section has been modified to read: Tank type appliances and equipment used for heating water or storing hot water shall be protected utilizing the options listed in IRC 2009, Section P2803.1. The remainder of this section is adopted without modification.

748:20-5-19. IRC 2009 Chapter 29 Water Supply and Distribution

Chapter 29 is adopted with modifications as follows:

(1) Section P2902.5.3 Lawn irrigation systems. This section has been modified to add a spill resistant backflow preventer as an option for protection. This section has been modified to read: The potable water supply to lawn irrigation systems shall be protected against backflow by an atmospheric-type vacuum breaker, a pressure-type vacuum breaker or a spill resistant backflow preventer. A valve shall not be installed down-stream from an atmospheric vacuum breaker. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.

(2) Section P2903.8.6 Hose bibb bleed. This section has been modified to specify it is only pertinent when the authority having jurisdiction requires it. This section has been modified to read: Where authority having jurisdiction requires a readily accessible air bleed shall be installed in hose bibb supplies at the manifold or at the hose bibb exit point.

(3) Section P2903.9.1 Service valve. This section has been modified to strike the provision for drainage such as a bleed orifice or installation of a separate drain valve. This section shall now read: Each dwelling unit shall be provided with an accessible main shutoff valve near the entrance of the water service. The valve shall be of a full-open type having nominal restriction to flow. Additionally, the water service shall be valved at the curb or property line in accordance with local requirements.

(4) Section P2903.10 Hose bibb. This section has been modified to strike the requirement of a stop and waste type valve and the exception. This section has been modified to read: Hose bibs subject to freezing, including the "frost-proof" type, shall be equipped with an accessible valve inside the building so that they can be controlled and/or drained during cold periods.

(5) Section P2904.1 General. This section has been modified to read: Where installed, residential fire sprinkler systems, or portions thereof, shall be in accordance with NFPA 13D.

(6) Sections P2904.1.1 – Section P2904.8.2 Dwelling Unit Fire Sprinkler System Provisions and Certain Tables Stricken. Sections P2904.1.1 through Section P2904.8.2 and tables P2904.6.2(1) through P2904.6.2(9) have been stricken from the code.

(7) Section P2905.4 Water service pipe. This section has been modified to require piping materials not third-party certified for water distribution to terminate at least 30 inches outside of the exterior wall. It has also been modified to strike the requirement of the termination to be before the full open valve located at the entrance to the structure. This section has been modified to read: Water service pipe shall conform to NSF 61 and shall conform to one of the standards listed in Table P2905.4. Water service pipe or tubing, installed underground and outside of the structure shall have a minimum working pressure rating of 160 pounds per square inch at 73 degrees Fahrenheit (1103 kPa at 23 degrees Celsius). Where the water pressure exceeds 160 pounds per square inch, (1103 kPa), piping material shall have a rated working pressure equal to or greater than the highest available pressure. Water service piping materials not third-party certified for water distribution shall terminate at least 30 inches outside the exterior wall. Ductile iron water service piping shall be cement mortar lined in accordance with AWWA C104.

(8) Table P2905.4 Water service pipe. This table has been modified. Asbestos-cement pipe has been stricken from the code.

748:20-5-20. IRC 2009 Chapter 30 Sanitary Drainage

Chapter 30 is adopted with modifications as follows:

(1) Section P3003.2 Prohibited joints. This section has been modified to include the following exception: Saddle-type fittings may be used to connect the building sewer to a public sewer.

(2) Section P3008.1 Sewage backflow. This section has been modified by striking the requirements of plumbing fixtures having flood level rims above the elevation of the next upstream manhole cover in the public sewer system. It has been modified to read: Where the flood level rims of plumbing fixtures are below the elevation of the manhole cover of the next upstream manhole in the public sewer, the fixtures shall be protected by a backwater valve installed in the building drain, branch of the building drain or horizontal branch servicing such fixtures.

748:20-5-21. IRC 2009 Chapter 31 Vents

Chapter 31 is adopted with modifications as follows: Section P3103.4 Prohibited used. This section has been modified and the exception has been deleted. It has been modified to read: Vent terminals shall not be used as a flag pole or to support flag poles, TV aerials, or similar items.

748:20-5-22. IRC 2009 Chapter 34 General Requirements (Electrical)

Chapter 34 is adopted with modifications as follows:

(1) Section E3402.2 Penetrations of fire-resistance-rated assemblies. This section has been modified to correct the reference section cited from R317.3 to R302.4.1. It has been modified to read: Electrical installations in hollow spaces, vertical shafts and ventilation or air-handling ducts shall be made so that the possible spread of fire products of combustion will not be substantially increased. Electrical penetrations through fire-resistance rated walls, partitions, floors or ceilings shall be protected by approved methods to maintain the fire-resistance-rating of

the element penetrated. Penetrations of fire-resistance-rated walls shall be limited as specified in Section R302.4.1.

(2) Section 3403.3 Listing and labeling. This section has been modified to comply with NFPA 70. It has been modified to read: Electrical materials, components, devices, fixtures and equipment shall be listed for the application, in accordance with NFPA 70, shall bear the label of an approved agency and shall be installed, and used, or both, in accordance with the manufacturer's installation instructions.

748:20-5-23. IRC 2009 Chapter 40 Devices and Luminaries

Chapter 40 is adopted with modifications as follows: Section E4002.14 Tamper-resistant receptacles. This section has been modified to include the following exceptions: Receptacles in the following locations shall not be required to be tamper-resistant:

- (1) Receptacles located more than 5 1/2 feet (1.7m) above the floor.
- (2) Receptacles that are part of a luminaire or appliance.
- (3) A single receptacle or a duplex receptacle for two appliances located within dedicated space for each appliance that, in normal use, is not easily moved from one place to another and that is cord-and-plug connected.
- (4) Non-grounding receptacles used for replacement.