

ORDINANCE NO. 3498

An ordinance amending Chapter 6, BUILDINGS AND BUILDING REGULATIONS, Article III.5 INTERNATIONAL RESIDENTIAL CODE (IRC), Section 6-37 – Amendments, of the Broken Arrow Code; specifically requiring concrete and masonry foundation/stem walls to extend above the existing grade adjacent to the foundation at all points a minimum of twelve inches (12”) and extend above the finished grade adjacent to the foundation at all points a minimum of six inches (6”); repealing all ordinances to the contrary, and declaring an emergency

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF BROKEN ARROW:

SECTION I. That Chapter 6, BUILDINGS AND BUILDING REGULATIONS, Article III.5 INTERNATIONAL RESIDENTIAL CODE (IRC), Section 6-37 – Amendments, of the Broken Arrow Code; is hereby amended to read as follows:

Sec. 6-37. - Amendments.

The International Residential Code adopted in section 6-36 is hereby amended as set forth in the following paragraphs:

- (a) *Subsection R101.1 Title.* Is amended by inserting "City of Broken Arrow, Oklahoma" in lieu of the phrase, "[name of jurisdiction]".
- (b) *Section R109 Inspections* shall be amended by adding the following subsections:
 - (1) *R109.1.1.1 Survey submittal inspection.* The Chief Building Official may require a survey submittal when a structure foundation (edge of ditch) is found to be less than six inches (6") from any easements, street rights-of-way or required setback at the time of the foundation inspection. The submitted survey shall be prepared and signed by a registered professional engineer or land surveyor, registered in the State of Oklahoma, containing the location of the foundation, easements, street rights-of-way, required setbacks and property lines. The survey shall be submitted to the City of Broken Arrow for review and approval.
 - (2) *R109.1.1.2 Post tension cable and/or steel inspection.* Inspection of the post tension cables and/or steel shall be made after the backfill has been properly placed over any plumbing piping, mechanical ducts or electrical conduit that is installed under the slab.
- (c) *Subsection R112.1 General,* is amended to state: All persons shall have the right to appeal the Building Official's decision to the City Council.
- (d) *Subsection R113.4 Violation penalties* is amended to state: Any person, firm or corporation violating any of the provisions of this Code shall be guilty of a Class B offense. It shall be deemed a separate offense for each day or a portion thereof during which any violation of any of the provisions of this Code is committed, continued or permitted.

- (e) *Table R301.2(1) entitled Climatic and Geographic Design Criteria* is amended to read as follows:

Ground Snow Load = 10 lbs. per square foot

Wind Design, Speed = 115

Wind Design, Topographic effects = No

Wind Design, Special wind region = No

Wind Design, Wind-borne debris zone = No

Seismic design category B

Subject to Damage from, Weathering = Moderate

Subject to Damage from, Frost line depth = Eighteen inches (18")

Subject to Damage from, Termite = Moderate to Heavy

Winter Design Temp = Thirteen Degrees Fahrenheit

Ice Barrier Underlayment Required = No

Air Freezing Index = One Thousand Five Hundred (1,500) or Less

Mean Annual Temp = Sixty and Three Tenths Degrees Fahrenheit

- (f) *Subsection R302.3 Two-family dwellings* is amended to state: Dwelling units in two-family dwellings shall be separated from each other by a wall and/or ceiling and floor assemblies of not less than two-hour fire-resistance rating when tested in accordance with ASTM E 119. Fire-resistance rated floors, ceilings and wall assemblies shall extend to and be tied against the exterior wall, and wall assemblies shall extend to the underside of the roof sheathing. Roof decking or sheathing shall be of noncombustible materials or approved fire-retardant-treated wood for a distance of four feet (4') (1,219 mm) on each side of the fire rated wall assembly, or two (2) layers of five-eighths inch (5/8 ") (15.9 mm) Type X gypsum board is installed directly beneath the roof decking or sheathing for a distance of four feet (4') (1,219 mm) on each side of the fire rated wall assembly. Any openings or penetrations in the roof shall not be located within 4 feet (1219 mm) of the fire rated wall assembly.
- (1) *Exception:* A fire resistance rating of one (1) hour shall be permitted in buildings equipped throughout with an automatic sprinkler system designed and installed in accordance with Section P2904 or NFPA 13D.
- (g) *Subsection R403.1.2 Continuous footing in Seismic Design Categories D0, D1 and D2,* is amended to read as follows: R403.1.2 Continuous footing. Exterior walls of buildings shall be supported by continuous solid or fully grouted masonry or concrete footings.

Other footing materials or systems shall be designed in accordance with accepted engineering practice.

- (h) *Subsection R403.1.3 Footing and stem wall reinforcing in Seismic Design Categories D0, D1, and D2*, is amended to read as follows: R403.1.3 Footing and stem wall reinforcing. Concrete footings shall have minimum reinforcement in accordance with this section and Figure R403.1.3. Reinforcement shall be installed with support and cover in accordance with Section R403.1.3.5.
- (i) *Subsection R403.1.3.1 Concrete stem walls with concrete footings*, is amended as follows: Where a construction joint is created between a concrete footing and a concrete stem wall, a minimum of one No. 4 vertical bar shall be installed at not more than 4 feet (1,219 mm) on center. The vertical bar shall have a standard hook and extend to the bottom of the footing and shall have support and cover as specified in Section R403.1.3.5.3 and extend a minimum of 14 inches (357 mm) into the stem wall. Standard hooks shall comply with Section R608.5.4.5. A minimum of two (2) No. 4 horizontal bar shall be installed within 12 inches (305 mm) of the top of the stem wall and two (2) No. 4 horizontal bar shall be located 3 to 4 inches (76 mm to 102 mm) from the bottom of the footing.
- (j) *Subsection R403.1.3.2 Masonry stem walls with concrete footings*, is amended as follows: Where a masonry stem wall is supported on a concrete footing, a minimum of one No. 4 vertical bar shall be installed at not more than 4 feet (1,219 mm) on center. The vertical bar shall have a standard hook and extend to the bottom of the footing and shall have support and cover as specified in Section R403.1.3.5.3 and extend a minimum of 14 inches (357 mm) into the stem wall. Standard hooks shall comply with Section R608.5.4.5. A minimum of two (2) No. 4 horizontal bar shall be installed within 12 inches (305 mm) of the top of the wall and two (2) No. 4 horizontal bar shall be located 3 to 4 inches (76 mm to 102 mm) from the bottom of the footing. Masonry stem walls shall be solid grouted.
- (k) *Subsection R403.1.3.3 Slabs-on-ground with turned-down footings*, is amended as follows: Slabs on ground cast monolithically with turned-down footings shall have a minimum of two (2) No. 4 bar at the top and the bottom of the footing or one No. 5 bar or two No. 4 bars in the middle third of the footing depth. Where the slab is not cast monolithically with the footing, No. 4 or larger vertical dowels with standard hooks on each end shall be installed at not more than 4 feet (1,219 mm) on center in accordance with Figure R403.1.3, Detail 2. Standard hooks shall comply with Section R608.5.4.5.
- (l) *Subsection R404.1.6 Height above finished grade*, is amended to state: Concrete and masonry foundation walls shall extend above the existing grade adjacent to the foundation at all points a minimum of twelve inches (12") and shall extend above the finished grade adjacent to the foundation at all points a minimum of six inches (6").
- (m) *Subsection R807.1 Attic access*, is amended to state: Buildings with combustible ceiling or roof construction shall have an attic access opening to attic areas that exceed thirty (30) square feet and have a vertical height of thirty inches (30") or greater. The vertical height shall be measured from the top of the ceiling framing members to the underside of the roof framing members.

The rough framed opening shall not be less than twenty-two inches (22") by thirty inches (30") When located in a wall, the opening shall be a minimum of twenty-two inches (22") wide by thirty inches (30") high. When the access is located in the ceiling, minimum unobstructed headroom in the attic space shall be thirty inches (30") at some point above the access measured vertically from the bottom of ceiling framing members. Where mechanical equipment is located in attics; the size of the rough framed opening shall comply with Section M1305.1.3. At least one attic access shall be accessible by a pull down ladder located in the hallway or other readily accessible location or through a side-hinged door with a minimum clear height of seventy-eight inches (78").

(n) *Section G2415* shall be amended by adding the following subsection:

(1) *Subsection G2415.2.1* shall be added to state: CSST installation requirements. CSST shall comply with the following installation requirements:

- a. CSST shall not be located within the space between roof rafters unless protected from penetration in accordance with section G2415.7.
- b. CSST shall not be allowed on the roof deck side of insulation installed between rafters.
- c. CSST shall not enter the attic by passing through the top plate of an exterior wall.
- d. CSST shall be installed with approved change in direction fittings per the manufactures instructions.
- e. CSST shall not be installed by lying on the top side of ceiling Joist.
- f. CSST installed in the attic shall be allowed only where it can be supported by manufactures recommended supports attaching it to the roof rafters.
- g. CSST manifolds and regulators shall be installed within 36 inches of the attic access for service. The manifold and regulator installation shall be a minimum of 36 inches above a service platform meeting the requirements of section M1305.1.3. A light for service shall be provided in accordance with section M1305.1.3.1.
- h. CSST shall be installed with a minimum of 6 inches' separation from HVAC ductwork, Electrical wiring, Communication wiring, Metal electrical fixture boxes and their supports, or any other material that may create a path to ground.
- i. A minimum of 6 inches shall be maintained between the CSST and house wiring located within the same wall cavity.
- j. CSST shall be bonded in accordance with sections G2411.1 through G2411.1.1.5.
- k. CSST with damaged outer covering shall be replaced.

1. When a gas system containing CSST is repaired or when equipment supplied by a such system is replaced the system shall be bonded in accordance with sections G2411.1 through G2411.1.1.5.
- (o) *Subsection G2415.12 Minimum burial depth*, is amended to state: Underground piping systems shall be installed a minimum depth of eighteen inches (18") below grade, except as provided for in Section G2415.12.1.
- (p) *Subsection G2420.5.1 Located within same room*, is amended to state: The shutoff valve shall be located in the same room as the appliance. The shutoff valve shall be within 6 feet of the appliance, and shall be installed upstream of the union, connector or quick disconnect device it serves. Such shutoff valves shall be provided with access; such access shall not be located within the firebox of a fireplace. Appliance shutoff valves located in the firebox of a fireplace shall be installed in accordance with the appliance manufacturer's instructions and shall have an additional appliance shutoff valve located outside of the firebox within 6 feet of the appliance.
- (q) *Section P2602 Individual Water Supply and Sewage Disposal* shall be amended by adding the following subsection:
 - (1) *Subsection P2602.1.1 Public sewer*. Public sewer shall be considered available to a building when the building is located within three hundred feet (300') of the public sewer.
- (r) *Section P2603 Structural and Piping Protection* shall be amended by adding the following subsection:
 - (1) *Subsection 2603.2.2. Piping in other locations*. Where piping is located within a framing member and is less than 1¼ inches (38 mm) from the framing member face to which wall, ceiling or floor membranes will be attached, the piping shall be protected by shield plates that cover the width and length of the piping. Where piping is located outside of a framing member and is located less than 1¼ inches (38 mm) from the nearest edge of the face of the framing member to which the membrane will be attached, the piping shall be protected by shield plates that cover the width and length of the piping. Such shield plates shall have a thickness of not less than 0.0575 inch (1.463 mm) (No. 16 Gage).
- (s) *Subsection P2603.6.1 Sewer depth*, is amended to state: Building sewers that connect to private sewage disposal systems shall be a minimum of eighteen inches (18") below finished grade at the point of septic tank connection unless otherwise approved. Building sewers that connect to a public sewer shall be a minimum of eighteen inches (18") below finished grade.
- (t) *Subsection P2902.5.3 Lawn irrigation systems*, is amended to state: The potable water supply to lawn irrigation systems shall be protected against backflow by a pressure-type vacuum breaker or a reduced pressure principle backflow preventer. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.
- (u) *Section P2906 Materials, Joints and Connections* shall be amended as follows:

- (1) *Subsection Table P2906.4* shall be amended by deleting "copper alloy tubing (type M)"
- (2) *Subsection P2906.5 Water-distribution pipe*, shall be amended by adding the following subsection:
 - (a) *Subsection P2906.5.1 Inaccessible water service piping*. Inaccessible water service piping installed under concrete slabs shall be installed with no joints under slab. Any material subject to corrosion shall be protected when used in corrosive soils.
- (v) *Subsection P3002.2 Building sewer*, is amended to state: Building sewer pipe shall conform to one of the standards listed in Table P3002.2. When ABS or PVC pipe less than six inches (6") in diameter is used it shall be schedule 40. When PVC pipe six inches (6") or larger is used in an engineered system, designed, sealed and signed by an engineer registered in the State of Oklahoma, it may be schedule 35. Lines less than six inches (6") in diameter shall not exceed three hundred feet (300') in length. Lines six inches (6") in diameter in an engineered system, designed, sealed and signed by an engineer registered in the State of Oklahoma shall have manholes installed and spaced no further apart than three hundred feet (300'). Lines larger than six inches (6") in diameter shall have manholes installed and spaced no further apart than three hundred feet (300').
- (w) *Subsection E3406.3 Minimum size of conductors*, is amended to state: The minimum size of conductors for feeders and branch circuits shall be 12 AWG copper. The minimum size of service conductors shall be as specified in Chapter 36. The minimum size of Class 2 remote control, signaling and power-limited circuit conductors shall be as specified in Chapter 43.

SECTION III. Any ordinance or parts of ordinances found to be in conflict herewith are hereby repealed.

SECTION XI. An emergency exists for the preservation of the public health; peace and safety and therefore this ordinance shall become effective from time of its passage and approval.

PASSED AND APPROVED and the emergency clause ruled upon separately this 19th day of September, 2017.

ATTEST:

MAYOR

(Seal) CITY CLERK

APPROVED:

ASSISTANT CITY ATTORNEY