



City of Broken Arrow

Request for Action

File #: 17-2618, Version: 1

**Broken Arrow City Council
Meeting of: 09-05-2017**

To: Mayor and City Council
From: Development Services Department

Title:

Consideration, discussion, and possible preview of 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

Background:

Chapter 6 of the Broken Arrow Municipal Code addresses buildings and building regulations. The Broken Arrow City Council, approved Ordinance 3454 adopting the 2015 International Residential Code as adopted and amended by the Oklahoma Uniform Building Code Commission with various local amendments on October 4, 2016. The local amendments were to incorporate current city code requirements into the 2015 International Residential Code.

Recently it has been requested by some of the local builders that the City review the City's amendment to the 2015 International Residential Code requiring a 16-inch foundation wall. This request was made due to a new engineer designed slab-on ground with monolithic turned-down footing foundation system designed with a 12-inch foundation/stem wall. With an engineer designed slab-on ground with monolithic turned-down footing foundation system, the 12-inch foundation/stem wall would be acceptable because it is part of the engineer designed foundation system. For non-engineer designed foundation system a 16-inch foundation/stem wall is required, therefore it has been requested that the City consider changing the amendment to the 2015 International Residential Code to allow for a 12-inch foundation/stem wall for all foundation systems.

The City first started requiring unreinforced foundation/stem walls to be a minimum of 16 inches in height with the adoption of and amendments to the 1983 CABO One and Two Family Dwelling Code in 1984. In 1989 with the adoption of the 1986 CABO One and Two Family Dwelling Code this amendment was changed requiring all foundation/stem walls to be a minimum of 16 inches in height. During the time frame the City made this amendment a lot of the foundation systems were being constructed as a two-part system, by placing a footing in the trench then using a foundation/stem wall to extend the foundation to a point above the existing grade, with the concrete floor being placed between the foundation/stem walls. This type of foundation system is rarely used in our area today.

A slab-on ground with turned-down footing foundation system is the most common foundation system being used in our area. This system uses a monolithic footing and foundation/stem wall that extends from the bottom of the trench to the existing grade, then the concrete floor is placed directly on top of the monolithic footing and

foundation wall.

While researching this issue, it was determined the City of Broken Arrow is the only city in this area that requires a 16-inch foundation/stem wall. Most other jurisdictions allow a 12-inch foundation/stem wall, some jurisdictions even allow a 10-inch foundation/stem wall, while other jurisdictions have no minimum requirement for the height of a foundation/stem wall.

The 2015 International Residential Code requires concrete and masonry foundation/stem walls to extend above the finished grade adjacent to the foundation at all points a minimum of 4 inches where masonry veneer is used and a minimum of 6 inches elsewhere. The proposed amendment will require 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").

The proposed amendment will still exceed the requirements of the 2015 International Residential Code, however it will bring the city more in line with the surrounding jurisdictions and today's standard building practices while allowing enough height from the existing grade to the finished floor elevation to allow for proper grading of the lot.

Staff recommends approval of these revisions and adoption to help bring the city more in line with the surrounding jurisdictions and today's standard building practices.

Cost: \$0

Prepared By: Joe Williford, MCP, Chief Building Inspector

Reviewed By: Development Services Department
Assistant City Manager - Operations
Legal Department

Approved By: Michael Spurgeon, City Manager

Attachments: Preview Ordinance
Adopted CABO ordinance, 1984
Adopted CABO ordinance, 1989
Example foundation drawings

Recommendation: Preview Ordinance and set for final adoption.