Amendments and deletions to the 2015 Edition of the International Energy Conservation Code

Section 1.01 Title

This Chapter shall be known as the "Construction" Chapter of the Arlington City Code. Article I shall be known as the "Building Code" of the City of Arlington and shall incorporate the herein referenced and adopted Editions of the International Code, as published by the International Code Council, Inc.

Section 1.02 Adoption of Code

The International Building Code, 2015 Edition (hereinafter called "I.B.C."); the International Existing Building Code, 2015 Edition (hereinafter called "I.E.B.C."); the International Residential Code, 2015 Edition (hereinafter called "I.R.C."); and the International Energy Conservation Code, 2015 Edition (hereinafter called "I.E.C.C."); as published by the International Code Council, Inc. are hereby adopted and designated, together with the deletions, amendments and addenda hereinafter contained, as the Building Code of the City of Arlington, the same as though said I.B.C., I.E.B.C., I.R.C. and I.E.C.C. were copied at length herein. Copies of the I.B.C., I.E.B.C., I.R.C. and I.E.C.C. and their Appendices shall be kept on file in the Office of the City Secretary.

The adoption of the 2015 I.R.C. as stated herein except that Section R313 of the 2003 I.R.C., as amended and originally adopted on August 23, 2005 by Ordinance No. 05-068, to read as follows is maintained:

R313.1 Fire sprinkler system. All R3 and U occupancies are required to have an approved fire sprinkler system.

Exception: Buildings with an approved fire department access.

Section 1.03 Code Defined; Rule of Construction

This Building Code shall include all of the provisions of the I.B.C., I.E.B.C., I.R.C. and I.E.C.C. as adopted by Section 1.02 above and all other provisions contained herein. In the event a conflict is determined to exist between said I.B.C., I.E.B.C., I.R.C. and I.E.C.C. as adopted and the other provisions of this Chapter, the provisions of this Chapter control. Items regulated by permit located on residential lots that are not specifically referenced in the I.R.C. are regulated by the I.B.C or I.E.B.C.

Section 1.04 <u>Amendments</u>, <u>Additions and Deletions</u>

The adoption of the I.B.C, I.E.B.C., I.R.C. and I.E.C.C., as provided in Section 1.02 above, is modified and amended by the following:

- A. The addition thereto of Articles II, et seq., of this Chapter.
- B. The deletion in the entirety of the following provisions of the I.B.C., I.E.B.C., I.E.C.C., and I.R.C.:
 - 1. Sections 105 I.B.C., 105 I.E.B.C and 105 I.R.C., entitled **Permits**;
 - 2. Section 107 I.B.C. entitled **Submittal Documents**, Section 106 I.E.B.C. entitled **Construction Documents** and Section 106 I.R.C. entitled **Construction Documents**.
 - Sections 109 I.B.C., 108 I.E.B.C., 108 I.R.C. and 107 I.E.C.C, entitled Fees;
 - 4. Sections 110 I.B.C., 109 I.E.B.C. and 109 I.R.C., entitled Inspections;
 - 5. Sections 111 I.B.C., 110 I.E.B.C. and 110 I.R.C., entitled **Certificate** of Occupancy:
 - 6. Sections 113 I.B.C., 112 I.E.B.C., 112 I.R.C. and 109 I.E.C.C, entitled **Board of Appeals**;
 - 7. Sections 114 I.B.C., 113 I.E.B.C. and 113 I.R.C., entitled **Violations**;
 - 8. Sections 116 I.B.C. and 115 I.E.B.C. entitled **Unsafe Structures** and **Equipment**;
 - 9. Section 2503 I.B.C., entitled **Inspection**;
 - 10. and all of Chapters 34 through 43 of the I.R.C.
- E. The amendment of the following I.E.C.C. provisions:
 - 1. The amendment of Section 101.1, entitled **Title**, to read as follows:
 - **101.1 Title.** This code shall be known as the International Energy Conservation Code of the City of Arlington, Texas, and shall be cited as such. It is referred to herein as "this code."
 - 2. The amendment of Section 101.4, entitled **Applicability**, to read as follows:
 - **101.4.2 Historic buildings.** Any building or structure that is listed in the State of National Register of Historic Places; designated as a historic property under local or state designation law or survey; certified as a contributing resource with a National Register listed or locally designated historic district; or with an opinion or certification that the property is eligible to be listed on the National or State Registers of Historic places either individually or as a contributing building to a historic district by the State Historic Preservation Officer or the Keeper of the National Register of Historic Places, shall comply with all of the provisions of this code.

Exception: Whenever a provision or provisions shall invalidate or jeopardize the historical designation or listing, that provision or provisions may be exempted.

- 3. The amendment of Section 102.1, entitled **General**, to add a new Section 102.1.2 to read as follows:
 - **102.1.2 Alternative compliance**. A building certified by a national, state, or local accredited energy efficiency program and determined by the Energy Systems Laboratory to be in compliance with the energy efficiency requirements of this section may, at the option of the Code Official, be considered in compliance. The United States Environmental Protection Agency's Energy Star Program certification of energy code equivalency shall be considered in compliance.
- 4. The amendment of Section 202, entitled **GENERAL DEFINITIONS**, to add the following definition:
 - **PROJECTION FACTOR.** The ratio of the horizontal depth of the overhang, eave or permanently attached shading device, divided by the distance measured vertically from the bottom of the fenestration glazing to the underside of the overhang, eave or permanently attached shading device.
- 5. The amendment of Section 402.2, entitled **Specific building thermal envelope insulation requirements (Prescriptive)**, to add a new Section 402.2.7 to read as follows:
 - **Section 402.2.7 Insulation installed in walls.** To insure that insulation remains in place, insulation installed in walls shall be totally enclosed on all sides consisting of framing lumber, gypsum, sheathing, wood structural panel sheathing, netting or other equivalent material approved by the building official.
- 6. The amendment of Section 102.1, entitled **General**, to add a new Section 102.1.2 to read as follows:
 - **102.1.2 Alternative compliance.** A building certified by a national, state, or local accredited energy efficiency program and determined by the Energy Systems Laboratory to be in compliance with the energy efficiency requirements of this section may, at the option of the Code Official, be considered in compliance. The United States Environmental Protection Agency's Energy Star Program certification of energy code equivalency shall be considered in compliance. Regardless of the program or the path to compliance,

each 1- and 2-family dwelling shall be tested for air and duct leakage as prescribed in Section 402.4 and 403.3.3 respectively.

7. The amendment of Section 202, entitled **GENERAL DEFINITIONS**, to add the following definition:

DYNAMIC GLAZING. Any fenestration product that has the fully reversible ability to change it performance properties, including *U*-factor, solar heat gain coefficient (SHGC), or visible transmittance (VT).

8. The amendment of Section 402.2, entitled **Specific insulation** requirements (Prescriptive), to add a new Section 402.2.14 to read as follows:

Section 402.2.14 Insulation installed in walls. To insure that insulation remains in place, insulation installed in walls shall be totally enclosed on all sides consisting of framing lumber, gypsum, sheathing, wood structural panel sheathing, netting or other equivalent material approved by the building official.

9. The amendment of Section 402.3.2, entitled **Glazed fenestration SHGC**, by adding a paragraph and table following the Exception to read as follows:

Where vertical fenestration is shaded by an overhang, eave, or permanently attached shading device, the SHGC required in Table 402.1.2 shall be reduced by using the multipliers in Table 402.3.2 SHGC Multipliers for Permanent Projections.

Table 402.3.2 SHGC Multipliers for Permanent Projections ^a

Projection	SHGC Multiplier	SHGC Multiplier
Factor	(all Other	(North Oriented)
	Orientation)	
0 - 0.10	1.00	1.00
>0.10 – 0.20	0.91	0.95
>0.20 - 0.30	0.82	0.91
>0.30 - 0.40	0.74	0.87
>0.40 - 0.50	0.67	0.84
>0.50 - 0.60	0.61	0.81
>0.60 - 0.70	0.56	0.78
>0.70 – 0.80	0.51	0.76
>0.80 - 0.90	0.47	0.75
>0.90 – 1.00	0.44	0.73

^a North oriented means within 45 degrees of true north.

10. The amendment of Section 402.4.1.2, entitled **Testing**, to add a last paragraph to read as follows:

Mandatory testing shall only be performed by individuals that are certified to perform air infiltration testing certified by national or state organizations as approved by the building official. The certified individuals must be an independent third-party entity, and may not be employed, or have any financial interest in the company that constructs the structure.

11. The amendment of Section 403.3.3, entitled **Duct Testing** (Mandatory), to add a last paragraph to read as follows:

Mandatory testing shall only be performed by individuals that are certified to perform duct testing leakage testing certified by national or state organizations as approved by the building official. The certified individuals must be an independent third-party entity, and may not be employed, or have any financial interest in the company that constructs the structure.

12. The amendment of Section 405.6.2, entitled **Specific approval**, to add the following sentence to the end of paragraph:

Acceptable performance software simulation tools may include, but are not limited to, REM RateTM, Energy Gauge and IC3. Other performance software programs accredited by RESNET BESTEST and having the ability to provide a report as outlined in 405.4.2 may also be deemed acceptable performance simulation programs and may be considered by the building official.

13. The amendment of TABLE 406.4, entitled **MAXIMUM ENERGY RATING INDEX**, to read as follows:

TABLE 406.41
MAXIMUM ENERGY RATING INDEX

CLIMATE ZONE	ENERGY RATING INDEX
3	65

¹ This table is effective until August 31, 2019.

TABLE 406.42 MAXIMUM ENERGY RATING INDEX

CLIMATE ZONE	ENERGY RATING INDEX
3	63

² The table is effective from September 1, 2019 to August 31, 2022.

TABLE 406.43 MAXIMUM ENERGY RATING INDEX

CLIMATE ZONE	ENERGY RATING INDEX
3	59

³ This table is effective on or after September 1, 2022