

Amendments and deletions to the
2009 Edition of the International Energy Conservation Code
Ordinance #12-020

Section 1.02 Adoption of Code

The International Building Code, 2009 Edition (hereinafter called "I.B.C."); the International Residential Code, 2009 Edition (hereinafter called "I.R.C."); and the International Energy Conservation Code, 2009 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.R.C. and I.E.C.C. were copied at length herein. Copies of the I.B.C., I.R.C. and I.E.C.C. and its Appendices shall be kept on file in the Office of the City Secretary.

The adoption of the 2009 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.

Further, Article I, **Section 1.04, Amendments, Additions and Deletions, Subsection (B)**, is hereby amended so that hereafter said subsection shall read as follows:

- B. The deletion in the entirety of the following provisions of the I.B.C., I.E.C.C., and I.R.C.:
1. Section 105 I.B.C. and R105 I.R.C., entitled Permits;
 2. Delete Section 107 I.B.C. entitled Submittal Documents and 106 I.R.C. entitled Construction Documents.
 3. Section 109 I.B.C. and R108 I.R.C. and 107 I.E.C.C, entitled Fees;
 4. Section 110 I.B.C. and R109 I.R.C., entitled Inspections; and
 5. Section 111 I.B.C. and R110 I.R.C., entitled Certificate of Occupancy.
 6. Section 113 I.B.C. and R112 I.R.C. and 109 I.E.C.C, entitled Board of Appeals;
 7. Section 114 I.B.C. and R113 I.R.C., entitled Violations;
 8. Section 116 I.B.C., entitled Unsafe Structures and Equipment;
 9. Section 2503 I.B.C., entitled Inspection;
 10. Chapters 34 through 43 I.R.C.

Further, Article I, **Section 1.04**, Subsection (D), is hereby amended so that hereafter said subsection shall read as follows:

- D. 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 101.4.2, Historic buildings., 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 addition of Section 102.1.2, entitled Alternative compliance., to read as follows:

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, GENERAL DEFINITIONS, by the addition of the following definition:

GLAZING AREA. Total area of the glazed fenestration measured using the rough opening and including sash, curbing or other framing elements that enclose conditioned space. Glazing area includes the area of glazed fenestration assemblies in walls bounding conditioned basements. For doors where the daylight opening area is less than 50 percent of the door area, the glazing area is the daylight opening area. For all other doors, the glazing area is the rough opening area for the door including the door and the frame.

5. The amendment of Section 301, entitled CLIMATE ZONES, to read as follows:

SECTION 301
CLIMATE ZONES

301.1 General. The City of Arlington, Texas is designated as Climate Zone 3 – A (Moist)/Warm and humid.

6. The amendment of Section 401.2, entitled Compliance., to read as follows:

401.2 Compliance. Projects shall comply with Sections 401, 402.4, 402.5, and 403.1, 403.2.2, 403.2.3, and 403.3 through 403.9 (referred to as the mandatory provisions) and either:

1. Sections 402.1 through 402.3, 403.2.1 and 404.1 (prescriptive) and the use of Tables 402.1.1 and 402.1.3 are limited to a maximum *glazing area* of 15% window area to floor area ratio; or
2. Section 405 (performance).

7. The addition of Section 401.2.1, entitled Compliance software tool., to read as follows:

401.2.1. Compliance software tools. Software tools used to demonstrate energy code compliance that are deemed acceptable by the building official. The PNL program REScheck™ is not acceptable for residential compliance.

Exception: The PNL program REScheck™, UA Alternate compliance approach method may be used when the compliance certificate demonstrates that the maximum glazing area does not exceed 15% of the conditioned floor area.

8. The amendment of Table 402.1.1, entitled INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT, by adding footnotes l and m to read as follows:

- l. Any glazing facing within 45 degrees of true north is exempt from the minimum SHGC requirement.
- m. Any glazing facing within 45 degrees of true south which is shaded along its full width by a permanent overhang with a projection factor of 0.3 or greater is exempt from the minimum SHGC requirement.

9. The amendment of Section 402.1.4, entitled Total UA alternative., to read as follows:

402.1.4 Total UA alternative. If the total building thermal envelope UA (sum of U -factor times assembly area) is less than or equal to the total UA resulting from using the U -factors in Table 402.1.3 (multiplied by the same assembly area as in the proposed building), the building shall be considered in compliance with Table 402.1.1. The UA calculation shall be done using a method consistent with the ASHRAE Handbook of Fundamentals and shall include the thermal bridging effects of framing materials. The SHGC requirements shall be met in addition to UA compliance. The use of Table 402.1.3 is limited to a maximum glazing area or 15% window area to floor area ratio.

10. The addition of Section 402.2.12, entitled Insulation installed in walls., to read as follow:

402.2.12. Insulation installed in walls. Insulation batts installed in walls shall be totally surrounded by an enclosure on all sides consisting of framing lumber, gypsum, sheathing, wood structural panel sheathing or other equivalent material approved by the building official.

11. The amendment of Section 402.4.2.1, Testing option., to read as follows:

402.4.2.1 Testing option. Building envelope tightness and insulation installation shall be considered acceptable when tested air leakage is less than seven air changes per hour (ACH) when tested with a blower door at a pressure of 33.5 psf (50 Pa). Testing shall occur after rough in and after installation of penetrations of the building envelope, including penetrations for utilities, plumbing, electrical, ventilation and combustion appliances.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed;
2. Dampers shall be closed, but not sealed, including exhaust, intake, makeup air, backdraft and flue dampers;
3. Interior doors shall be open;
4. Exterior openings for continuous ventilation systems and heat recovery ventilators shall be closed and sealed;
5. Heating and cooling system(s) shall be turned off;
6. HVAC ducts shall not be sealed; and
7. Supply and return registers shall not be sealed.

Testing may only be performed by individuals that are certified HERS Raters or Rating Field Inspectors by RESNET or Performance Verification Technicians, or other certifications as may be 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 403.2.2, Sealing (Mandatory)., to add paragraph #3 to read as follows:

3. Testing may only be performed by individuals that are certified HERS Raters or Rating Field Inspectors by RESNET or Performance Verification Technicians, or other certifications as may be 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 installed the duct system.

13. The amendment of Section 405.4.1, entitled Compliance software tools., to read as follows:

405.4.1 Compliance software tools. Documentation verifying that the methods and accuracy of the compliance software tools conform to the provisions of this section shall be provided to the code official.

RemRateTM, Energy Gauge^{TMv}(when used in conjunction with the United States Environmental Protection Agency's Energy Star Program certification of energy code equivalency), and the *International Code Calculator (IC3)* are deemed acceptable performance simulation programs.

14. The addition of Section 502.2.8, entitled Insulation installed in walls., to read as follows:

502.2.8. Insulation installed in walls. Insulation batts installed in walls shall be totally surrounded by an enclosure on all sides consisting of framing lumber, gypsum, sheathing, wood structural panel sheathing or other equivalent material approved by the building official.

15. The amendment of Table 505.6.2(1), entitled EXTERIOR LIGHTING ZONES, to read as follows:

TABLE 505.6.2(1)
EXTERIOR LIGHTING ZONES ^{1,2}

LIGHTING ZONE	DESCRIPTION
1	A-Agricultural and E-Estate Districts and park areas
2	Residential and multifamily zoning districts, O-Office, NS-Neighborhood Services, CS-Community Services, light industrial with limited nighttime use and residential mixed use areas
3	B-Business LI-Light Industrial IM-Industrial Manufacturing
4	Non-Residential zoning districts in the ED-Entertainment District Overlay

¹ The lighting zone references the zoning district classification as set forth in the Zoning Ordinance.

² The lighting zone for mixed use districts may be determined by the building official on a case by case basis.