

## ORDINANCE NO. 15,333

AN ORDINANCE to amend the Municipal Code of the City of Des Moines, Iowa, 2000, adopted by Ordinance No. 13,827, passed June 5, 2000, as heretofore amended, by adding and enacting a new Article II, ENERGY CODE, consisting of Sections 26-200 to 26-216, to Chapter 26, BUILDINGS AND BUILDING RESTRICTIONS, and by amending Sections 26-300, 26-310 and 26-311 of said Chapter 26, to adopt the International Energy Conservation Code, 2012 edition, and to delete and amend portions thereof.

BE IT ORDAINED by the City Council of the City of Des Moines, Iowa:

Section 1. That the Municipal Code of the City of Des Moines, Iowa, 2000, adopted by Ordinance No. 13,827, passed June 5, 2000, as amended by Ordinance No. 15,206 passed August 12, 2013, be and is hereby amended by adding and enacting a new Article II, ENERGY CODE, consisting of Sections 26-200 to 26-216, to Chapter 26, BUILDINGS AND BUILDING RESTRICTIONS, and by amending Sections 26-300, 26-310 and 26-311 of said Chapter 26, to adopt the International Energy Conservation Code, 2012 edition, and to delete and amend portions thereof, as follows:

### **ARTICLE II. ENERGY CODE DIVISION 1. GENERALLY**

#### **Sec. 26-200. Adoption of the International Energy Conservation Code.**

- (a) This article shall consist of the International Energy Conservation Code ("IECC"), 2012 edition, published by the International Code Council, including both the Commercial Provisions and the Residential Provisions thereof, which are incorporated by this reference in their entirety, except as otherwise indicated in this article.
- (b) This article and all provisions incorporated in this article, by reference or otherwise, shall be known as the energy code. References to section numbers in this article not preceded by "26-" will be to sections in the IECC. References to sections numbers in this article preceded with a "C" will be to the Commercial Provisions in the IECC. References in this article to sections preceded with an "R" will be to the Residential Provisions in the IECC.
- (c) Nothing in this division shall be interpreted to apply a lower standard or requirement than imposed by the residential energy code or the nonresidential energy code of the state of Iowa building code. In the event the residential energy

code or the nonresidential energy code of the state of Iowa building code imposes a higher standard or requirement, the applicable energy code of the state of Iowa building code shall be enforced in lieu of this division.

**Sec 26-201—26-209. Reserved.**

## **DIVISION 2. DELETIONS & AMENDMENTS**

### **Sec. 26-210. Deletions.**

The following sections are deleted from the International Energy Conservation Code, and are of no force or effect in this article:

- (1) Section C109
- (2) Section R109

### **Sec. 26-211. Amendments and additions.**

The remaining sections in this division are and represent amendments and additions to the requirements contained in the International Energy Conservation Code, and where their requirements conflict with that code, the requirements of this division shall prevail.

### **26-212. Statement of review.**

A statement that a review has been accomplished and that the design is in compliance with the energy efficiency standards shall be provided. If the building volume exceeds 100,000 cubic feet of enclosed space that is heated or cooled, the review shall be signed and sealed by the responsible registered architect or licensed professional engineer. This statement shall be filed with the building official on a form approved by the building official prior to construction or before obtaining building permits. The building official may issue permits for footings and foundations prior to the submittal of the statement of review.

### **Sec. 26-213. Scope of IECC residential provisions.**

Delete section R101.2 of the IECC and insert in lieu thereof the following new section:

R101.2 Scope. This code applies to residential buildings and the buildings' sites and associated systems and equipment, except the remodeling or renovation of one- and two-family dwelling units. The remodeling or renovation of one- and two-family dwelling units is not within the scope of the IECC or this article.

### **Sec. 26-214. Testing.**

Delete the first three sentences of section R402.4.1.2 of the IECC and insert in lieu thereof the following new sentences:

The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding 4 air changes per hour. Testing shall be conducted with a blower door at a pressure of 0.2 inches w.g. (50 Pascals). Testing shall be conducted by an approved third party holding one of the following certifications,

or an equivalent certification approved by the building official:

- 1) Building Analyst certified by Building Performance Institute, Inc.
- 2) Home Energy Rating System Rater certified by Residential Energy Services Network.
- 3) Duct and Envelope Tightness (DET) Verifier certified by the Illinois Association of Energy Raters.

**Sec. 26-215. Sealing.**

Delete section R403.2.2 of the IECC and insert in lieu thereof the following new section:

R403.2.2 Sealing (mandatory). Ducts, air handlers, and filter boxes shall be sealed. Joints and seams shall comply with either the International Mechanical Code or International Residential Code, as applicable.

**EXCEPTIONS:**

1. Air-impermeable spray foam products shall be permitted to be applied without additional joint seals.
2. Where a duct connection is made that is partially inaccessible, three screws or rivets shall be equally spaced on the exposed portion of the joint so as to prevent a hinge effect.
3. Continuously welded and locking-type longitudinal joints and seams in ducts operating at static pressures less than 2 inches of water column (500 Pa) pressure classification shall not require additional closure systems.

Duct tightness shall be verified by either of the following:

1. Postconstruction test: Leakage to outdoors shall be less than or equal to 4 cfm (113.3 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area or total leakage shall be less than or equal to 6 cfm (170 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.
2. Rough-in test: Total leakage shall be less than or equal to 6 cfm (170 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure. All registers shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 3 cfm (85 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area.

**EXCEPTION:** The duct leakage test is not required for ducts and air handlers located entirely within the building thermal envelope unless cavities are used for returns.

**26-216. Building cavities.**

Delete section R403.2.3 of the IECC and insert in lieu thereof the following new section:

R403.2.3 Building cavities (mandatory). Building framing cavities shall not be

used as supply ducts. Building framing cavities may be used as return ducts only if both of the following conditions exist:

1. Ducts must be tested for duct leakage in accordance with section R403.2.2.
2. Exterior wall cavities shall not be used for return ducts.

**Secs. 26-217—26-299. Reserved.**

## **ARTICLE III. BUILDING CODE**

### **DIVISION 1. GENERALLY**

**Sec. 26-300. Adoption of international codes.**

- (a) This article shall consist of the International Building Code (“IBC”), the International Existing Building Code (“IEBC”), and Parts I, II, III, V, VI, IX and appendix chapters G, H, J and K of the International Residential Code (“IRC”) all 2012 editions published by the International Code Council, which volumes are incorporated by this reference in their entirety, except as otherwise indicated in this article.
- (b) This article and all provisions incorporated in this article, by reference or otherwise, shall be known as the building code. References to section numbers not preceded by "26-" will be to sections in the International Building Code, the International Existing Building Code or the International Residential Code.
- (c) All references to the International Plumbing Code found within the IRC, IBC, and IEBC shall be interpreted to refer to the corresponding provision in the Uniform Plumbing Code.
- (d) The following climatic and geographic design criteria shall be applied in the application of the IRC to structures in the City of Des Moines.

Ground Snow Load	Wind Speed	Seismic Design Category	Subject To Damage From:				Winter Design Temp	Ice Shield Underlayment Required	Flood Hazard	Air Freezing Index	Mean Annual Temperature
			Weathering	Frost Line Depth	Termite	Decay					
30 psf	90 mph	A	Severe	42"	Moderate to Heavy	Slight to Moderate	0°F	Yes	Mar-1984	1833	48.6°F

### **DIVISION 2. DELETIONS AND AMENDMENTS**

**Sec. 26-310. Deletions.**

The following are deleted from the building code and are of no force or effect in this article:

- (1) Sections 113; and,
- (2) Subsections 105.2, 105.5 and 110.3.5 of the International Building Code.
- (3) Sections R112; and,
- (4) Subsections R105.2, R105.5, G2420.5.3, item 2 in G2422.1, exception 4 in

- G2422.1.2.3, and AG105.2 item 10.1 of the International Residential Code.
- (5) Section 103, 112, 115; and,
  - (6) Subsections 105.2, 105.5, and 109.3.5 of the International Existing Building Code.

**Sec. 26-311. Amendments and additions.**

The remaining sections in this article represent amendments and additions to the requirements contained in the International Building Code, the International Residential Code, and the International Existing Building Code. In the event there are requirements that conflict with these codes, the requirements of this article shall prevail.

Sec. 2. This ordinance shall be in full force and effect from and after the later of its passage and publication as provided by law.

FORM APPROVED:

Roger K. Brown, Assistant City Attorney

T. M. Franklin Cownie, Mayor

Attest:

I, Diane Rauh, City Clerk of the City of Des Moines, Iowa, hereby certify that the above and foregoing is a true copy of an ordinance (Roll Call No. 14-1954), passed by the City Council of said City at a meeting held December 22, 2014 signed by the Mayor on December 22, 2014 and published and provided by law in the Business Record on January 9, 2015. Authorized by Publication Order No. 8291.

Diane Rauh, City Clerk