

**CITY COUNCIL  
COMMUNICATION:**

**ITEM \_\_\_\_\_**

**02-147**

**OFFICE OF THE CITY MANAGER  
CITY OF DES MOINES, IOWA**

**AGENDA:**

**MARCH 18, 2002**

**SUBJECT:**

**BUILDING  
CONSTRUCTION  
CODE CHANGES**

**TYPE:**

**RESOLUTION  
ORDINANCE  
RECEIVE/FILE**

**SYNOPSIS -**

The series of code changes that are included with this item represent changes to Chapter 26 of the Des Moines Municipal Code (Buildings and Building Regulations), primarily intended to adopt an updated building code (2000 International Building Code and 2000 International Residential Code), with some additions and deletions. This building code, with revisions, represents the edition and building code document that is intended to be adopted throughout the metro area by neighboring communities. This code is the preferred edition for such projects as the Polk County Events Center and the Vine Street Lofts projects which are presently being planned and close to development. By means of approval by the Building Code Board of Appeals, this code has been used for the design and construction of the Allied Insurance and Wells Fargo Financial projects and has proven to function well for the owner, designer, and the City.

**FISCAL IMPACT -**

**SUBMITTED BY:**

None.

**JAMES M. GRANT  
COMMUNITY  
DEVELOPMENT  
DIRECTOR**

**RECOMMENDATION -**

**Approval.**

**BACKGROUND -**

Presently, the City of Des Moines uses the 1991 edition of the Uniform Building Code (UBC), which was published by the International Conference of Building Officials (ICBO).

The UBC was one of three model building codes that was developed by similar code associations throughout the country, all of which are updated every three years. Historically, the City of Des Moines has adopted updated versions of the UBC. In the early 1990's, the ICBO

joined two other code associations, the Building Official and Code Administrators (BOCA) and the Southern Building Code Council International (SBCCI), along with the National Fire Protection Association (NFPA), to develop a single set of building codes that could be adopted and used throughout the United States and abroad. The objective was to develop a family of codes (building, mechanical, plumbing, residential, electrical, housing, etc.) that would have requirements that would be coordinated among each other and administered by a single organization.

During the development of these International Codes, ICBO, BOCA, and SBCCI agreed to abandon the development of their codes and support the development of the International Codes. NFPA, who was a participant early in the development stages, decided not to participate in this process. Nevertheless, the three building code organizations moved forward to complete the development of the International Codes. As a result, the UBC, which is the building code the City of Des Moines historically adopted, is no longer published in an updated version, but the International Residential Code (IRC) and International Building Code (IBC) are available.

The City of Des Moines' Building Code Board of Appeals has suggested the adoption of these codes and has accepted these codes for use on two specific projects (Allied Insurance Building and Wells Fargo Financial Building) as alternative methods. Following this recommendation, Permit and Development Center staff reviewed these codes with representatives of the cities of West Des Moines, Urbandale, and Ankeny, as well as representatives from the Greater Des Moines Homebuilders Association. As a result, all of the participating jurisdictions expressed an interest in adopting these codes with agreed upon additions and deletions that were jointly developed with the Homebuilders' valuable contribution and input.

Also identified during this review process was the need to revise portions of the ordinance that allowed more flexibility for renovation projects and buildings that are being moved within the City. Presently, the electrical code (Article III) and the plumbing code (Article VI) require any building moved into or within the City to be brought into compliance with these codes as required for new buildings. There are suggested changes in the proposed ordinance that deletes the requirement that the electrical and plumbing systems be upgraded to new standards. However, these systems will be required to be repaired or modified to meet established minimum update requirements and any unsafe conditions must be corrected.

The following is a summary of the proposed changes to this ordinance

as a result of this review process.

#### **Article I: Administrative**

**26-5:** This change expands the authority of the Licensing and Appeals Board to enable it to grant variances to specific Uniform Code for Building Conservation (UCBC) requirements when the renovated building or structure does not create a condition that is any more hazardous in terms of life safety, fire safety, or sanitation than the building was before.

#### **Article II: Building Code**

**26-26:** The changes in this section adopt the 2000 edition of the IBC and Parts I, II and III of the 2000 edition of the IRC. These parts deal with administrative, definitions, and the building provisions. The remaining parts (Energy Conservation, Mechanical, Plumbing, and Electrical) are not recommended for adoption at this time. It is expected the Licensing and Appeals Board will continue to review these other codes and come forward with recommendations regarding the updating of these other codes in the near future.

**26-27:** This section represents chapters and sections that are recommended to be **deleted** from the 2000 IBC and the 2000 IRC. These sections are as follows:

**IBC Chapter 11-Accessibility:** This subject is mandated by the Americans with Disabilities Act (ADA) and the State of Iowa.

**IBC Chapter 13-Energy:** This subject is mandated by the State of Iowa.

**IBC Section 101.4-Reference Codes:** This section refers to codes that are not presently adopted.

**IBC Section 103-Department of Building Safety:** This section is replaced by Section 26-76 which already exists.

**IBC Section 104.8-Liability:** This section is replaced by Section 26-4(g) which already exists.

**IBC Section 105.2-Work Exempt from Permit:** This section is replaced by Section 26-114 which already exists.

**IBC Section 105.5-Expiration:** This section is replaced by Section 26-115 which already exists.

**IBC Section 108.3-Building Permit Valuations:** This section is replaced by Section 26-113 which already exists.

**IBC Section 109.3.7-Energy Efficiency Inspections:** This section is deleted as energy standards are mandated by the State of Iowa.

**IBC Section 112-Board of Appeals:** This section is replaced by Section 26-5 which already exists.

**IBC Section 115-Unsafe Structures and Equipment:** This section is replaced by Sections 26-5 and 26-78 which already exist.

**IBC Section 507.1-Unsprinkled One Story:** This section permits unlimited construction types and areas for factory or warehousing buildings, whereas these uses should not be allowed to be unlimited without some degree of fire protection. By deleting this section, these types of facilities will be allowed to be unlimited in area if provided with a sprinkler system throughout.

**IBC Section 1612-Flood Loads:** This section is deleted as this topic is addressed in the City of Des Moines Flood Plain Development Regulations which already exist.

**IRC Section R101.3-Purpose:** This section is replaced by Section 26-51 which is a new section.

**IRC Section R105-Permits:** This section is replaced by Section 26-114 which already exists.

**IRC Section R108-Fees:** This section is replaced by Section 26-113 which already exists.

**IRC Section R112-Board of Appeals:** This section is replaced by Section 26-5 which already exists.

**IRC Section R310.1-Emergency Escape and Rescue Openings:** This section is replaced by Section 26-46 which is modified with suggested changes.

**IRC Section R314.2-Stairway Treads and Risers:** This section is replaced by Section 26-53 which is a new section.

**IRC Section R315.1-Handrails:** This section is replaced by Section 26-54 which is a new section.

**IRC Section R327-Flood Resistant Construction:** This section is deleted as this topic is addressed in the City of Des Moines Flood Plain Development Regulations which already exist.

**Table R403.1-Concrete or Masonry Footings:** This section is replaced by Section 26-39 which already exists.

**26-28:** Subsection (a) is proposed to be deleted from this section, as the provisions that allow day care uses to be located on upper floors are now included in the IBC.

**26-30 and 26-33:** These existing sections have been modified to correctly reference the IBC and the IRC.

**26-31 and 26-32:** These existing sections have been modified to

correctly reference the IRC.

**26-34:** This existing section has been modified to correctly reference the IBC and the IRC and keep the Ground Snow Load at 30 pounds per square foot.

**26-35:** This section is deleted as the Wind Speed provisions are now referenced in the IBC and the IRC.

**26-36, 26-38, 26-39:** These existing sections have been modified to correctly reference the IBC and the IRC.

**26-40:** This existing section is suggested to be deleted as it is best suited to be included in Zoning and Subdivision regulations where provisions existed that address this subject.

**26-41, 26-44, 26-45, 26-47:** These existing sections are deleted as provisions now exist in the IBC that address this subject.

**26-42, 26-43:** These existing sections have been modified to correctly reference the sections in the IBC.

**26-46:** This existing section is revised to correctly reference the section of the IRC and to modify this section as recommended by the joint committee of communities and homebuilders as a result of their review.

**26-48, 26-49:** These existing sections are deleted as provisions now exist in the IRC that address this subject.

**26-50:** This existing section has been modified to correctly reference the sections in the IBC. In addition, this provision has been modified to reference the 1997 edition of the UCBC, which is presently the most current edition of this document presently available.

**26-51:** This is a new section that addresses recommendations of the joint committee of communities and homebuilders as a result of their review. In essence this adds "affordability" as one aspect to the scope of the code.

**26-52:** This is a new section that addresses recommendations of the joint committee of communities and homebuilders as a result of their review. This addresses wood floor cantilevers that do not appear to be addressed in the IRC and which reflects practices that have been acceptable in this area.

**26-53:** This is a new section that addresses recommendations of the joint committee of communities and homebuilders as a result of their review. This keeps the stair geometry for residential stairs the same as what is accepted with previous UBC standards. The present geometry in the IRC does not allow as steep of stair. This provision was discussed as being transitional, allowing builders to begin to modify their plans and building practices to meet the new stair geometry.

**26-54:** This is a new section that addresses recommendations of the joint committee of communities and homebuilders as a result of their review. These modifications reflect the practices that have been acceptable in this area.

**26-113, 26-147, 26-176, 26-181, 26-182, 26-189, 26-223, 26-225:**

These existing sections have been modified to correctly reference the sections in the IBC.

**26-114:** This existing section has been modified to correctly reference the sections in the IBC and language has been added that previously existed in the UBC that does not exist in the International Code.

**26-116, 26-193:** These sections are suggested to be deleted, as it is a provision that has proven to be very difficult to enforce and does not appear to add to the overall scope and purpose of the code, which is to safeguard life, limb, and property.

**26-146:** This existing section has been modified to correctly reference the sections in the IBC. In addition, an exception has been added for buildings provided with a sprinkler system throughout.

### **Article III: Electrical Code**

**26-266:** This section is suggested to be modified by deleting language that requires buildings moved within the City to be brought into compliance with current electrical code provisions. This will still require the structure to be updated to minimum requirements, but will not require it to be entirely retrofitted to comply with requirements as expected for a new building.

### **Article V: Mechanical Code**

**26-942:** The suggested language to this section adds an exception that allows a City maintenance employee to be able to do heating, venting, and air conditioning (HVAC) repairs and maintenance to City-owned property without having to obtain a contractor's license, if the individual meets the same technical qualifications as a contractor in the HVAC field. This allows the Permit and Development Center to issue permits to the City without having to require the City to bond itself. Similar language exists in the plumbing and electrical fields, but does not exist in the present code for the HVAC field.

### **Article VI: Plumbing Code**

**26-992:** This section is suggested to be modified by deleting language that requires buildings moved within the City to be brought into compliance with current plumbing code provisions. This will still require the structure to be updated to repair and correct unsafe and unsanitary conditions, but not be required to be entirely retrofitted to comply with requirements as expected for a new building.

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