

**CITY OF BELLMEAD, TEXAS
ORDINANCE 2021-09**

AN ORDINANCE OF THE CITY OF BELLMEAD, TEXAS AMENDING CHAPTER 4 – BUILDINGS AND BUILDING REGULATIONS, ARTICLE II. – BUILDING CODE; PROVIDING FOR THE ADOPTION OF THE *INTERNATIONAL MECHANICAL CODE 2018 EDITION*; ADDING ARTICLE VII. – MECHANICAL; PROVIDING FOR THE ADOPTION OF LOCAL AMENDMENTS THERETO; PROVIDING FOR RECORDING OF SUCH CODE AS A PUBLIC RECORD; PROVIDING THAT THIS ORDINANCE SHALL BE CUMULATIVE OF ALL ORDINANCES; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A SAVINGS CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Bellmead is a home rule city acting under its charter adopted by the electorate pursuant to Article XI, Section 5 of the Texas Constitution and Chapter 9 of the Local Government Code; and,

WHEREAS, the *International Mechanical Code, 2018 Edition* regulates the design, installation, maintenance, alteration, and inspection of permanent mechanical systems except one- and two-family dwellings and multiple single-family dwellings; and,

WHEREAS, Chapter 214 of the Local Government Code authorizes a municipality to regulate substandard buildings and establishes procedures thereof; and,

WHEREAS, the City Council desires to update, revise and clarify the standards and regulations that apply to substandard buildings in conformance with legislative amendments and to provide for civil penalty as permitted by law; and,

WHEREAS, the City Council of the City of Bellmead deems it necessary to adopt this ordinance providing minimum standards to safeguard the health, property, and welfare of the citizens of Bellmead by regulating and controlling the use, occupancy, maintenance, repair, design, construction, and quality of materials for buildings and structures within the City.

NOW THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BELLMEAD, TEXAS:

SECTION 1

Sec. 4-27. – Code Adopted.

There are hereby adopted by the city, for the purpose of establishing rules and regulations for the construction, alteration, removal, demolition, equipment, use and occupancy, location and maintenance of buildings and structures, including permits. The following codes which are adopted by reference as though they were fully copied herein:

- (5) 2018 International Mechanical Code, including Amendments.

SECTION 2

ARTICLE VII. – MECHANICAL (Addition to Chapter 4 – BUILDINGS AND BUILDING REGULATIONS,)

DIVISION 1. GENERAL PROVISIONS

Sec. 4-270. – Amendments.

[A]102.8 **Referenced codes and standards.** The codes and standards referenced in this code shall be those that are listed in Chapter 15 and such codes, when specifically adopted and standards shall be considered as part of the requirements of this code ... {Remainder Text unchanged}

[A]102.8.3 **Local amendments.** Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the adopted amendments. Any reference to NFPA 70 or the National Electrical Code (NEC) shall mean the Electrical Code as adopted.

(Reason: Legal wording to recognize locally adopted codes and amendments adopted with referenced codes.)

[A]106.5.2 **Fee schedule.** The fees for all mechanical work shall be as indicated in the following schedule: MASTER FEE SCHEDULE adopted by ordinance of the governing body of the jurisdiction.

SECTION 109 MEANS OF APPEAL

[A]109.1 **Application for appeal.** Any person shall have the right to appeal a decision of the code official to the board of appeals established by ordinance. The board shall be governed by the enabling ordinance.

(Reason: Most jurisdictions already have an ordinance establishing and governing an appeals board for this code. This also calls to the attention of jurisdictions not having such a board that it needs to be established.)

306.3 Appliances in Attics. Attics containing appliances shall be provided . . . {bulk of paragraph unchanged} ... As a minimum, for access to the attic space, provide one of the following:

1. A permanent stair.
2. A pull down stair with a minimum 300 lb. (136 kg) capacity.
3. An access door from an upper floor level.
4. Access Panel may be used in lieu of items 1, 2, and 3 with prior approval of the code official due to building conditions.

(Reason: To provide a safe means of accessibility to appliances in attics and to allow for different types of construction limitations. Consistent with regional amendment to IFGC 306.3 and IPC 502.3)

306.5 Equipment and Appliances on Roofs or Elevated Structures. Where equipment requiring access or appliances are located on an elevated structure or the roof of a building such that personnel will have to climb higher than 16 feet (4,877 mm) above grade to access, an interior or exterior means of access shall be provided. Exterior ladders providing roof access need not extend closer than 12 feet (2438 mm) to the finish grade or floor level below and shall extend to the equipment and appliances' level service space. Such access shall ... {bulk of section to read the same} on roofs having a slope greater than four units vertical in 12 units horizontal (33-percent slope). {remainder of text unchanged}.

(Reason: To assure access to roof appliances and provide options to not extend exterior ladders to grade. Consistent with IFGC amendments.)

306.5.1 Sloped Roofs. Where appliances, equipment, fans or other components that require service are installed on a roof having a slope of three units vertical in 12 units horizontal (25-percent slope) or greater and having an edge more than 30 inches (762 mm) above grade at such edge, a catwalk at least 16 inches in width with substantial cleats spaced not more than 16 inches apart shall be provided from the roof access to a level platform at the appliance. The level platform shall be provided on each side of the appliance to which access is required for service, repair, or maintenance. The platform shall be not less than 30 inches (762 mm) in any dimension and shall be provided with guards. The guards shall extend not less than 42 inches (1067 mm) above the platform, shall be constructed so as to prevent the passage of a 21-inch-diameter (533 mm) sphere and shall comply with the loading requirements for guards specified in the International Building Code... {remainder of text unchanged}.

(Reason: To assure safe access to roof appliances. Consistent with IFGC amendments.)

306.6 Water Heaters above ground or floor. When the mezzanine or platform in which a water heater is installed is more than eight (8) feet (2438 mm) above the ground or floor level, it shall be made accessible by a stairway or permanent ladder fastened to the building.

Exception: A maximum 10-gallon water heater (or larger with approval) is capable of being accessed through a lay-in ceiling and the water heater installed is not more than ten (10) feet (3048 mm) above the ground or floor level and may be reached with a portable ladder.

(Reason: To provide safe access to water heaters and to provide lighting and receptacle for maintenance of equipment. Consistent with regional amendments to IFGC 306. 7 and International Plumbing Code (IPC) 502.6.)

307.2.1 Condensate disposal. Condensate from all cooling coils and evaporators shall be conveyed from the drain pan outlet to an approved place of disposal. ... {text unchanged} ... Condensate shall not discharge into a street, alley, sidewalk, rooftop, or other areas so as to cause a nuisance.

(Reason: Greater specificity in prohibited locations for condensate discharge. It is the intent of this amendment to send condensate discharge into a sanitary sewer drain. Consistent with regional amendment to IPC 314.2.1.)

Section 307.2.3; Auxiliary and secondary drain systems. Amend to read as follows:

2. A separate overflow drain line shall be connected to the drain pan provided with the equipment. Such overflow drain shall discharge to a conspicuous point of disposal to alert

occupants in the event of a stoppage of the primary drain. The overflow drain line shall connect to the drain pan at a higher level than the primary drain connection. However, the conspicuous point shall not create a hazard such as dripping over a walking surface or other areas so as to create a nuisance.

(Reason: Greater specificity in prohibited locations for condensate discharge. Consistent with regional amendment to IPC 314.2.1.)

Section 403.2.1; add item 5 to read as follows:

5. Toilet rooms within private dwellings that contain only a water closet, lavatory, or combination thereof may be ventilated with an approved mechanical recirculating fan or similar device designed to remove odors from the air.

(Reason: Consistent with common regional practice. Consistent with regional amendment to International Residential Code (IRC) R303.3.)

501.3 Exhaust Discharge. The air removed by every mechanical exhaust system shall be discharged outdoors at a point where it will not cause a public nuisance and not less than the distances specified in Section 501.3.1. The air shall be discharged to a location from which it cannot again be readily drawn in by a ventilating system. Air shall not be exhausted into an attic, crawl space, or be directed onto walkways.

Exceptions:

1. Whole-house ventilation-type attic fans shall be permitted to discharge into the attic space of dwelling units having private attics.

2. Commercial cooking recirculating systems.

3. Where installed in accordance with the manufacturer's instructions and where mechanical or natural ventilation is otherwise provided in accordance with Chapter 4, listed and labeled domestic ductless range hoods shall not be required to discharge to the outdoors.

4. Toilet room exhaust ducts may terminate in a warehouse or shop area when infiltration of outside air is present.

(Reason: Provide a reasonable alternative in areas where a large volume of outside air is present.)

505.4 Makeup air required. Where one or more gas, liquid or solid fuel-burning appliance that is neither direct-vent nor uses a mechanical draft venting system is located within a dwelling unit's air barrier, each exhaust system capable of exhausting in excess of 400 cubic feet per minute (0.19 m³/s) shall be mechanically or passively provided with makeup air at a rate approximately to the difference between exhaust air rate and 400 cubic feet per minute. Such makeup air systems shall be equipped with no fewer than one damper complying with Section M1503.6.2.

Exception: Makeup air is not required for exhaust systems installed for the exclusive purpose of space cooling and intended to be operated only when windows or other air inlets are open. Where all appliances in the house are of sealed combustion, power-vent, unvented, or electric, the exhaust hood system shall be permitted to exhaust up to 600 cubic feet per minute (0.28 m³/s) without providing makeup air. Exhaust hood systems capable of exhausting in excess

of 600 cubic feet per minute (0.28 m³/s) shall be provided with a makeup air at a rate approximately to the difference between the exhaust air rate and 600 cubic feet per minute.

(Reason: Exception requires makeup air equaling the amount above and beyond 400 cfm for larger fan which will address concerns related to "fresh" air from the outdoors in hot humid climates creating a burden on HVAC equipment and negative efficiency impacts from back-drafting and wasted energy. Consistent with IRC M1503.6)

[BF]607.5.1 Fire Walls. Ducts and air transfer openings permitted in fire walls in accordance with Section 706.11 of the International Building Code shall be protected with listed fire dampers installed in accordance with their listing. For hazardous exhaust systems see Section 510.1-510.9 IMC.

(Reason: Correspond with un-amended IBC 710.8.)

SECTION 3

This ordinance shall be cumulative of all provisions of ordinances of the City of Bellmead, Texas, except where the provisions of this ordinance are in direct conflict with the provisions of such ordinances, in which event the conflicting provisions of such ordinance are hereby repealed.

SECTION 4

It is hereby declared to be the intention of the City Council that the phrases, clauses, sentences, paragraphs, and sections of this ordinance are severable, and if any phrase, clause, sentence, paragraph or section of this ordinance shall be declared unconstitutional by the valid judgement or decree of any court of competent jurisdiction, such unconstitutional shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this ordinance, since the same would have been enacted by the City Council without the incorporation in this ordinance of and such unconstitutional phrase, clause, sentence, paragraph or section.

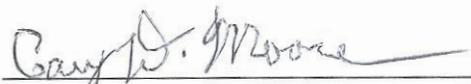
SECTION 5

This ordinance shall be in full force and effect June 1, 2021.

PASSED AND APPROVED ON FIRST READING APRIL 13, 2021.

PASSED AND APPROVED ON SECOND READING MAY 11, 2021.

PASSED AND APPROVED ON THIRD READING MAY 11, 2021.



Mayor, Gary Moore

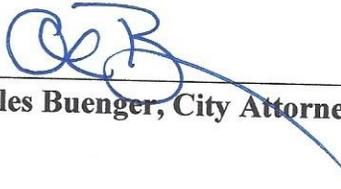
ATTEST:



Holly Owens, City Secretary



APPROVED AS TO FORM & LEGALITY:



Charles Buenger, City Attorney



CITY COUNCIL AGENDA MEMO

Prepared by: Holly Owens

May 11, 2021

City Manager Approval: Yousry Zakhary

ICC updates – International Mechanical Code 2018 Edition

DESCRIPTION:

Consider **Ordinance 2021-09**; Amending Chapter 4 – Buildings and Building Regulations, Article II. – Building Code; Providing for the adoption of *the International Mechanical Code 2018 Edition*; Adding Article VII. – Mechanical; Providing for the adoption of local amendments thereto; Providing for recording of such code as a public record; Providing that this ordinance shall be cumulative of all ordinances; Providing a severability clause; Providing a savings clause; and Providing an effective date.

BACKGROUND:

Currently, the City of Bellmead operates under the 2012 International Code Council. All codes directly affect construction, inspections, and the ISO rating for the city. Each appendices and amendments are reflective of our community and the surrounding communities. They are also recommended for our region by the NCTCOG.

The mechanical code regulates the design, installation, maintenance, alteration, and inspection of permanent mechanical systems except one- and two-family dwellings and multiple single-family dwellings. Residential dwellings are regulated through the IRC.

What’s new in the IMC 2018 codes?

- **Section 304.3 Elevation of Ignition Source**
Equipment and appliances having an ignition source and located in hazardous locations and public garages, private garages, repair garages, automotive motor fuel-dispensing facilities and parking garages shall be elevated such that the source of ignition is not less than 18 inches (457 mm) above the floor surface on which the equipment or appliance rests. For the purpose of this section, rooms or spaces that are not part of the living space of a dwelling unit and that communicate directly with a private garage through openings shall be considered to be part of the private garage.

- **Section 401.5 Intake Opening Protection**
Air intake openings that terminate outdoors shall be protected with corrosion-resistant screens, louvers or grilles. Openings in louvers, grilles and screens shall be sized in accordance with Table 401.5, and shall be protected against local weather conditions. Louvers that protect air intake openings in structures located in hurricane-prone regions, as defined in the *International Building Code*, shall comply with AMCA 550. Outdoor air intake openings located in exterior walls shall meet the provisions for exterior wall opening protectives in accordance with the *International Building Code*.

TABLE 401.5 OPENING IN LOUVERS, GRILLES AND SCREENS PROTECTING AIR INTAKE OPENINGS

| OUTDOOR OPENING TYPE | MINIMUM AND MAXIMUM OPENING SIZES IN LOUVERS, GRILLES AND SCREENS ^a |
|---|--|
| Intake openings in residential occupancies | Not < ¼ inch and not > ½ inch |
| Intake openings in other than residential occupancies | > ¼ inch and not > 1 inch |

For SI: 1 inch = 25.4 mm

a. For rectangular openings, the table requirements apply to the shortest side. For round openings, the table requirements apply to the diameter. For square openings, the table requirements apply to any side.

- **Section 404.1 Enclosed Parking Garages**

Mechanical ventilation systems for enclosed parking garages shall operate continuously or shall be automatically operated by means of carbon monoxide detectors applied in conjunction with nitrogen dioxide detectors. Such detectors shall be listed in accordance with UL 2075 and installed in accordance with their listing and the manufacturer's instructions. Automatic operation shall cycle the ventilation system between the following two modes of operation.

- Full-on at an airflow rate of not less than 0.75 cfm per square foot [$0.0038 \text{ m}^3 / (\text{s} \cdot \text{m}^2)$] of the floor area served.
- Standby at an airflow rate of not less than 0.05 cfm per square foot [$0.0025 \text{ m}^3 / (\text{s} \cdot \text{m}^2)$] of the floor area served.

- **Section 501.2 Independent System Required**

Single or combined mechanical exhaust systems for environmental air shall be independent of all other exhaust systems. Dryer exhaust shall be independent of all other systems. Type I exhaust systems shall be independent of all other exhaust systems as provided in Section 506.3.5. Single or combined Type II exhaust systems for food-processing operations shall be independent of all other exhaust systems. Kitchen exhaust systems shall be constructed in accordance with Section 505 for domestic cooking operations and Sections 506 through 509 for commercial cooking operations.



- **[BE] 601.2 Air Movement in Egress Elements**

Corridors shall not serve as supply, return, exhaust, relief or ventilation air ducts.

Exceptions:

- Use of a corridor as a source of makeup air for exhaust systems in rooms that open directly onto such corridors, including toilet rooms, bathrooms, dressing rooms, smoking lounges, and janitor closets, shall be permitted, provided that each such corridor is directly supplied with outdoor air at a rate greater than the rate of makeup air taken from the corridor.
- Where located within a dwelling unit, the use of the corridors for conveying return air shall not be prohibited.
- Where located within tenant spaces of 1,000 square feet (93 m^2) or less in area, use of corridors for conveying return air is permitted.
- Incidental air movement from pressurized rooms within health care facilities, provided that the corridor is not the primary source or return to the room.

- **Section 805.7 Insulation Shield**

Where factory-built chimneys pass through insulated assemblies, an insulation shield constructed of steel having a thickness of not less than 0.0187 inch (0.4712 mm) (No. 26 gage) shall be installed to provide clearance between the chimney and the insulation material. The clearance shall be not less than the clearance to combustibles specified by the chimney manufacturer's installation instructions. Where chimneys pass through attic space, the shield shall terminate not less than 2 inches (51 mm) above the insulation and shall



AGENDA ITEM 14A

be secured in place to prevent displacement. Insulation shields provided as part of a listed chimney system shall be installed in accordance with the manufacturer's instructions.

- **Section 901.4 Solid Fuel-burning Fireplaces and Appliances in Group I-2, Condition 2**

In Group I-2, Condition 2 occupancies, solid fuel-burning fireplaces and appliances are prohibited.

Institutional Group I-2 occupancy shall include buildings and structures used for medical care on a 24-hour basis for more than three persons who are incapable of self-preservation. (Child care, Detoxification facility, Hospitals, Nursing Homes, Psychiatric Hospitals, etc.) Condition 2 shall include facilities that provide nursing and medical care and could provide emergency care, surgery, obstetrics, or in-patient stabilization units for psychiatric or detoxification, including but not limited to hospitals.

These are just some of the changes.

This is the link for the IMC Codes.

[2018 INTERNATIONAL MECHANICAL CODE - ICC DIGITAL CODES \(iccsafe.org\)](https://www.iccsafe.org)

This the second and third final reading. The first reading was held on April 13th with an approval of 6-0-0.

FISCAL IMPACT or FUNDING SOURCE:

N/A

STAFF RECOMMENDATION:

Motion to approve **Ordinance 2021-09**; Amending Chapter 4 – Buildings and Building Regulations, Article II. – Building Code; Providing for the adoption of *the International Mechanical Code 2018 Edition*; Adding Article VII. – Mechanical; Providing for the adoption of local amendments thereto; Providing for recording of such code as a public record; Providing that this ordinance shall be cumulative of all ordinances; Providing a severability clause; Providing a savings clause; and Providing an effective date.

ATTACHMENTS:

- Ordinance 2021-09 IMC