

ORDINANCE NO. 3735

AN ORDINANCE OF THE CITY OF MESQUITE, TEXAS, AMENDING CHAPTER 5 OF THE CODE OF THE CITY OF MESQUITE BY DELETING ARTICLE XIII IN ITS ENTIRETY AND ADDING A NEW ARTICLE XIII THEREBY ADOPTING THE INTERNATIONAL RESIDENTIAL CODE, 2003 EDITION, AND PROVIDING CERTAIN ADDITIONS AND DELETIONS THERETO; PROVIDING FOR A REPEALER CLAUSE; PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR A PENALTY NOT TO EXCEED TWO THOUSAND (\$2,000.00) DOLLARS FOR EACH OFFENSE; AND DECLARING AN EFFECTIVE DATE.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MESQUITE, TEXAS:

SECTION 1: That Chapter 5 of the Code of the City of Mesquite, Texas, is hereby amended by deleting Article XIII in its entirety and adding a new Article XIII to read as follows, in all other respects said Code and Chapter to remain in full force and effect:

ARTICLE XIII. RESIDENTIAL CODE

DIVISION 1. GENERAL

Sec. 5-467. Adopted.

The International Residential Code, 2003 Edition, a publication of the International Code Council (I.C.C.), is hereby adopted and designated as the official residential code of the City of Mesquite to the same extent as if such code were copied verbatim in this Article subject to the amendments prescribed in this Article. The code shall be applicable to all construction, alterations, movement, enlargement, replacement, repairs, equipment, use and occupancy, location, removal and demolition and maintenance of detached one- and two-family units and multiple single-family units (townhouses) not more than three stories in height with separate means of egress and their accessory structures. A copy of the International Residential Code, 2003 Edition, and amendments thereto shall be maintained in the office of the City Secretary as an original document and ordinance of the City.

DIVISION 2. AMENDMENTS

Sec. 5-468. Amendments to the International Residential Code, 2003 Edition.

The following amendments are made to the International Residential Code, 2003 Edition:

- (1) *Chapter 1, Administration.*

- (a) *Section R102.4.* Amend by deleting the first paragraph in the section in its entirety and adding a new first paragraph and an exception to Section R102.4 to read as follows:

Referenced codes and standards. The codes, when specifically adopted, and standards referenced in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference. Whenever amendments have been adopted to the referenced code and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference made to NFPA 70 or the ICC Electrical Code shall mean the Electrical Code as adopted.

Exception: Where enforcement of a code provision would violate the conditions of the listing of the equipment or appliance, the conditions of the listing and manufacturer's instructions shall apply.

- (b) *Section R104.2.1.* Amend by adding a new Section R104.2.1 to read as follows:

Every construction project requiring a building permit within the City limits of the City of Mesquite shall have adequate toilet facilities for workers associated with the project. At least one permanent or temporary toilet facility shall be maintained in each subdivision for the employees or subcontractors of each builder holding a permit for a building in that subdivision.

Permanent toilet facility is defined as a room in an existing building or in the building being constructed with a water closet installed in such a room, which conforms to the Plumbing Code and is continuously available to all workers involved in a construction project.

Temporary toilet facility is defined as a portable fully enclosed chemical sanitized toilet, which is serviced and cleaned at least once each week.

- (c) *Section R105.2.* Amend by deleting Section R105.2 in its entirety.
- (d) *Section R108.2.* Amend by deleting the section in its entirety and adding a new Section R108.2 to read as follows:

Schedule of permit fees. On buildings, structures, electrical, gas, mechanical and plumbing systems or alterations requiring a permit, a fee for each permit shall be paid as required before work is

commenced, in accordance with the schedule as established by the City of Mesquite.

- (e) *Section R108.4.* Amend by adding an exception to Section R108.4 to read as follows:

Exception: Whenever a permit is required for a building, structure, electrical, gas, mechanical or plumbing system, and work is commenced without securing the applicable permit, the Building Official may charge double the amount of the usual fee for the permit.

- (f) *Section R109.1.3.* Amend by deleting the section in its entirety and adding a new Section R109.1.3 to read as follows:

Floodplain inspections. For construction permitted in areas prone to flooding as established by Table R301.2(1), upon placement of the lowest floor including basement and prior to further vertical construction, the Building Official may require submission of documentation, prepared and sealed by a registered design professional, of the elevation of the lowest floor, including basement, required in Section R323.

- (g) *Section R110.1.* Amend by deleting Section R110.1 in its entirety.

- (h) *Section R110.2.* Amend by deleting the section in its entirety and adding a new Section R110.2 to read as follows:

Change in tenancy. When a rental dwelling unit is vacated by the tenant, the owner of the unit must apply for and receive a Certificate of Occupancy from the Building Official prior to the unit being occupied by a new tenant. The Building Official or his designated representative will inspect the unit and premises for compliance with this code, the Property Maintenance Code and other applicable ordinances of the City. If deficiencies are found, the Building Official may prohibit occupancy of the unit and premises until such time as the owner takes action needed to bring the unit and premises into compliance. The inspection required by this section shall also be required for a dwelling unit and premises prior to its original occupancy as a rental unit.

- (i) *Section R110.3.* Amend the first paragraph in Section R110.3 to read as follows:

Certificate issued. When the Building Official determines that a rental dwelling unit and premises are in compliance with the

provisions of this and other applicable codes, the Building Official shall issue a Certificate of Occupancy containing the following:

1. The address of the structure;
2. The name and address of the property owner;
3. A statement that the described portions of the structure have been inspected for compliance with the requirements of this code;
4. The name of the Building Official;
5. The edition of the code on which the certificate was issued; and
6. The date the Certificate of Occupancy was issued.

- (j) *Section R111.1.* Amend by deleting the section in its entirety and adding a new Section R111.1 to read as follows:

Connection of service utilities. No person shall make connections from a utility, source of energy, power or water to any new dwelling unit, townhouse or system regulated by this code and requires a permit until such connection is approved by the Building Official. No person shall make connections for water utilities to any rental dwelling unit that is required by this code to be inspected prior to occupancy until the unit is approved as code compliant and the Building Official has issued a Certificate of Occupancy.

- (k) *Section R111.2.* Amend by deleting the section in its entirety and adding a new Section R111.2 to read as follows:

Temporary connection of utilities. The Building Official shall have the authority to authorize and approve the temporary connection of the building system to the utility source of energy, power or water.

- (l) *Section R111.3.* Amend by deleting the section in its entirety and adding a new Section R111.3 to read as follows:

Authority to disconnect service utilities. In case of an emergency necessitating disconnection of utilities to eliminate an immediate hazard to life or property, the Building Official shall have the authority to authorize disconnection of utility service to a building,

structure or system regulated by this code and the referenced codes and standards set forth in Section R102.4. The Building Official shall notify the service utility and whenever possible the owner and occupant of the building, structure or service system of the decision to disconnect prior to taking such action. If prior notification is not possible, the owner or occupants of the building, structure or service system shall be notified in writing, as soon as practical thereafter. In addition, the Building Official shall have the authority to authorize disconnection of utility service to a building, structure or system, if a building, structure or system is found to be in violation of this code, including a connection made without the approval required by Sections R111.1 and R111.2, or any other ordinance of the City and after notification of the violation has been made to the owner and/or occupant of the building or structure and the violation is not corrected.

- (m) *Section R112.1.* Amend by deleting the section in its entirety and adding a new Section R112.1 to read as follows:

General:

- (A) *Created composition.* There is hereby created a board to be known as the Board of Appeal. The Board shall be composed of five members who are qualified through their experience to pass upon matters pertaining to building construction and who are not employees of the City of Mesquite.
- (B) *Scope and authority of the Board.* The Board shall hear and decide appeal of orders, decisions or the determinations made by the Building Official relating to the application and interpretation of the building and housing codes of the City of Mesquite.
- (C) *Appeal procedures.* An appeal to the Board shall be filed within 30 calendar days after the date the determination or decision of the Building Official is made. If the 30th day falls on a Saturday, Sunday or City holiday, the time for filing the appeal shall be extended to the next day following the 30th day which is not a Saturday, Sunday or City holiday. The appeal shall be filed at the office of the Building Official and such notice of appeal shall specify the grounds of such appeal stating the reasons why appellant feels the Building Official's determination should be overturned.

- (D) *Terms.* The Board members are appointed by the City Council to serve without compensation for two-year terms. Three members shall be appointed on or about January 1 of odd-numbered years, and two members shall be appointed on or about January 1 of even-numbered years. The Board shall set its rules and regulations and appoint a chairman from among its members.
- (E) *Vacancies.* The City Council shall fill all vacancies by the appointment of a suitable person to serve the unexpired term.
- (F) *Meetings.* Board meetings shall be held at the call of the chairman or at such other times as the Board may determine. All meetings are open to the public. The Board shall keep minutes of its meetings and records are open and available upon request to the public.
- (G) *Quorum.* Three members shall constitute a quorum. A concurring vote of three members of the Board shall be necessary to render a decision in favor of the Appellant.

(n) *Section R112.2.2.* Amend by deleting Section R112.2.2 in its entirety.

(o) *Section R114.3.* Amend by adding a new Section R114.3 to read as follows:

Construction debris. Construction debris from that work for which a permit is required must be confined to a containment structure/container approved by the Building Official or his authorized representative.

(2) *Chapter 2, Definitions.*

(a) *Section R202.* Amend by deleting the definition of "Townhouse" in the section in its entirety and adding a new definition of "Townhouse" in Section R202 to read as follows:

Townhouse. A single-family unit constructed in a group of attached units separated by property lines in which each unit extends from foundation to roof and with open space on at least two sides.

- (b) *Section R202.* Amend by adding the definition of “Naturally Durable Wood” to Section R202 to read as follows:

Naturally durable wood. The heartwood of the following species with the exception that an occasional piece with corner sapwood is permitted if 90 percent or more of the width of each side on which it occurs is heartwood.

Decay Resistant. Redwood, cedars, black locust and black walnut.

Termite resistant. Redwood and Eastern red cedar.

- (3) *Chapter 3, Building Planning.*

- (a) *Table R301.2(1).* Amend by deleting the chart in the table in its entirety and adding a new chart to Table R301.2(1) to read as follows:

TABLE R301.2(1)
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

****Table R301.2(1); fill in as follows:**

GROUND SNOW LOAD	WIND SPEED ^d (mph)	SEISMIC DESIGN CATEGORY ^h		
5 lb/ft ²	90 (3-sec-gust)/75 fastest mile	A		
SUBJECT TO DAMAGE FROM				
Weathering ^a	Frost line depth ^b	Termite ^c		
moderate	6"	Very heavy		
WINTER DESIGN TEMP ^e	ICE SHIELD UNDER-LAYMENT REQUIRED ^h	FLOOD HAZARDS ^g	AIR FREEZING INDEX ⁱ	MEAN ANNUAL TEMP ^j
22°F	No	Local code	69°F	64.9°F

For SI: 1 pound per square foot = 0.0479 kN/m.0², 1 mile per hour = 1.609 km/h.

- (b) *Section R301.2.(7).* Amend by deleting the section in entirety and adding a new Section R301.2.(7) to correspond to amended Table R301.2.(1).
- (c) *Section R302.1.* Amend by adding a second exception to the second paragraph of Section R302.1 to read as follows:

Exceptions:

2. Open metal carport structures must be constructed to meet all local zoning restrictions regarding building placement. Carport structures shall be open on three sides.

- (d) *Section R303.3.* Amend by deleting the exception in the section in its entirety and adding a new exception to Section R303.3 to read as follows:

Exception: The glazed areas shall not be required where artificial light and a mechanical ventilation system complying with one of the following are provided:

1. The minimum ventilation rates shall be 50 cfm (23.6 L/s) for intermittent ventilation or 20 cfm (9.4 L/s) for continuous ventilation. Ventilation air from the space shall be exhausted directly to the outside.
2. Bathrooms 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.

- (e) *Section R303.8.* Amend by deleting the section in its entirety and adding a new Section R303.8 to read as follows:

Required heating. Every unit shall be provided with heating facilities capable of maintaining a minimum room temperature of 68° F (20° C) at a point three feet (914 mm) above the floor and two feet (610 mm) from exterior walls in all habitable rooms at the winter design temperature.

- (f) *Section R309.3.* Amend by deleting the section in its entirety and adding a new Section R309.3 to read as follows:

Floor Surfaces. Garage floor surfaces shall be of reinforced concrete material designed to specifications as required by City code.

- (g) *Section R309.4.* Amend by deleting the section in its entirety and adding a new Section R309.4 to read as follows:

Carports. Carport floor surfaces shall be reinforced concrete designed to specifications as required by City ordinance, policy or other approved surfaces as allowed by City ordinance.

- (h) *Section R311.2.2.* Amend by deleting the section in its entirety and adding a new Section R311.2.2 to read as follows:

Under stair protection. Enclosed accessible space under stairs shall have walls, under stair surface and any soffits protected on

the enclosed side with 5/8-inch (15.8 mm) fire-rated gypsum board or one-hour fire-resistive construction.

- (i) *Section R311.5.6.3.* Amend by deleting the section in its entirety and adding a new Section R311.5.6.3 to read as follows:

Handrail grip size. The handgrip portion of handrail shall have a circular cross section of 1-1/4 inches (32 mm) minimum to 3-1/8 inch (80 mm) maximum. Other handrail shapes that provide an equivalent grasping surface are permissible. Edges shall have a minimum radius of 1/8-inch (3.2 mm).

- (j) *Section R312.2.* Amend by adding a third exception to Section R312.2 to read as follows:

Exceptions:

3. Required guards shall not be constructed with horizontal rails or other ornamental pattern that results in a ladder effect.

- (k) *Section R317.1.* Amend by deleting the exceptions in this section in their entirety and adding new exceptions to Section R317.1 to read as follows:

Exceptions:

1. A fire resistance rating of one-half hour shall be permitted in buildings equipped throughout with an automatic sprinkler system installed in accordance with NFPA 13.
2. Two-family units that are also divided by property line through the structure shall be separated as required for townhouses. Each unit shall be structurally independent.

- (l) *Section R318.* Amend by deleting Section R318 in its entirety.

- (m) *Section R319.1.* Amend by deleting the section in its entirety and adding a new Section R319.1 to read as follows:

Location required. Protection from decay shall be provided in the following locations by the use of naturally durable wood or wood that is pressure preservative treated in accordance with AWPA C1, C2, C3, C4, C9, C15, C18, C22, C23, C24, C28, C31, C33, P1, P2 and P3. (Locations 1-7 no revisions)

- (n) *Section R319.1.1.* Amend by deleting the section in its entirety and adding a new Section R319.1.1 to read as follows:

Field Treatment. Field cut ends, notches and drilled holes of pressure preservatively treated wood shall be re-treated in the field in accordance with AWP A M4.

- (o) *Sections R319.1.1 through R319.1.4.* Renumber existing Sections R319.1.1 through Section R319.1.4 to read as follows:

1. *Section R319.1.1.* Amend by renumbering existing Section R319.1.1 Ground Contact to Section R319.1.2 Ground Contact.
2. *Section R319.1.2.* Amend by renumbering existing Section R319.1.2 Geographical Areas to Section R319.1.3 Geographical Areas.
3. *Section R319.1.3.* Amend by renumbering existing Section R319.1.3 Posts, Poles and Columns to Section R319.1.4 Posts, Poles and Columns.
4. *Section R319.1.4.* Amend by renumbering Section R319.1.4 Wood Columns to Section R319.1.5 Wood Columns.

- (p) *Section R320.1.1.* Amend by deleting the section in its entirety and adding a new Section R320.1.1 to read as follows:

Treatment Standards. Pressure preservatively treated or naturally durable wood shall be provided as per HUD standards. Pressure preservatively treated wood shall be treated in accordance with the standards cited in R219.1.

- (q) *Section R320.1.1.1.* Amend by adding a new Section R320.1.1.1 to read as follows:

Quality Mark. Lumber and plywood required to be pressure preservatively treated in accordance with R324.1 shall bear the quality mark of an approved inspection agency which maintains continuing supervision, testing, and inspection over the quality of the product and which has been approved by an accreditation body which complies with the requirements of the American Lumber Standards Committee Treated Wood Program.

- (r) *Section R320.1.1.2.* Amend by adding a new Section R320.1.1.2 to read as follows:

Field Treatment. Field cut ends, notches and drilled holes of pressure preservatively treated wood shall be retreated in the field in accordance with AWP A M4.

- (s) *Section R320.1.2.* Amend by adding a new Section R320.1.2 to read as follows:

Pesticide treatment. The concentrations, rate of application and treatment methods of the termiticide shall be consistent with the termiticide label. Pesticide treatment shall be provided using methods approved by the Environmental Protection Agency and the Texas Structural Pest Control Board.

- (t) *Section R320.1.3.* Amend by adding a new Section R320.1.3 to read as follows:

Physical barriers. Physical barriers shall be installed as recognized by Texas Structural Pest Control Board.

- (u) *Section R320.3.1.* Amend by deleting Section R320.3.1 in its entirety.

- (v) *Section R321.1.* Amend by deleting the section in its entirety and adding a new Section R321.1 to read as follows:

Premises identification. The official house or street number assigned to the property must be displayed at both the front and rear of the property. The numbers shall be in Arabic block numerals and at least four inches high by one-half inch wide.

- (w) *Section R323.1.* Amend by deleting the section in its entirety and adding a new Section R323.1 to read as follows:

General. Buildings and structures, when permitted to be constructed in flood hazard areas (including A or V zones) as established in Table R301.2 shall be designed and constructed as required in accordance with the provisions contained in this section or by local provisions as applicable.

- (4) *Chapter 4, Foundations.*

- (a) *Section 403.1.6.1.* Amend by adding a new Section 403.1.6.1 to read as follows:

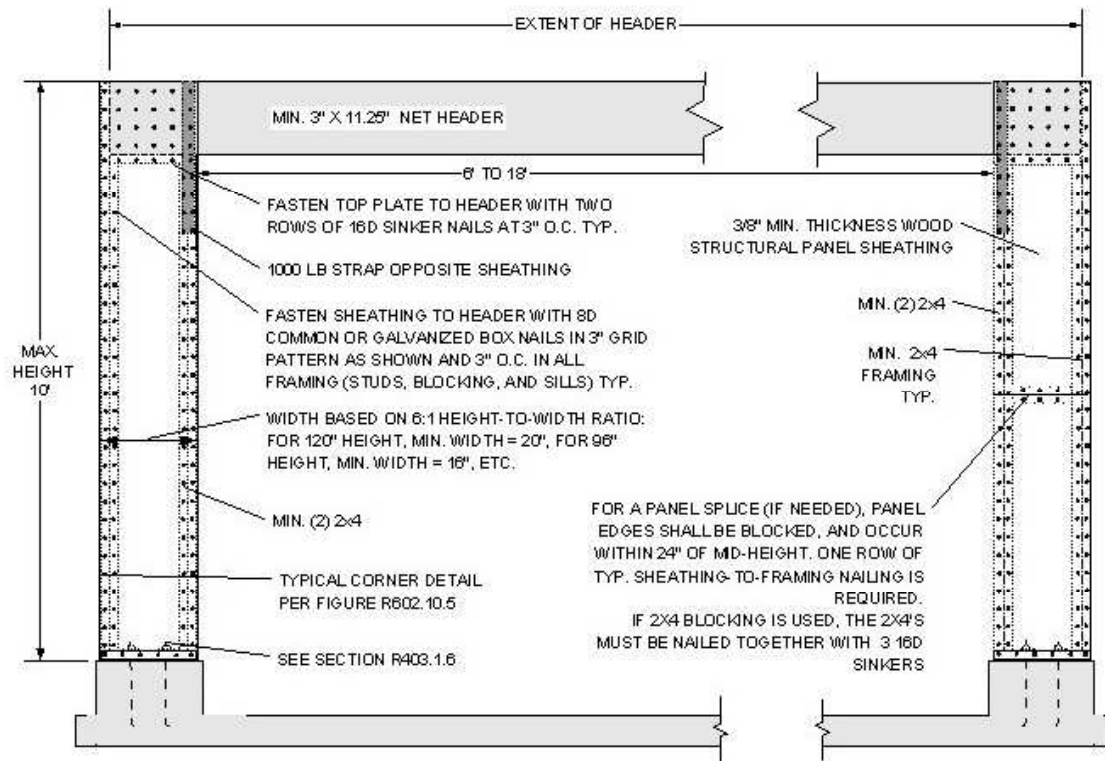
Interior foundation anchorage. Zinc plated fasteners and anchors are no longer appropriate to fasten or anchor interior sole plates to concrete foundations, due to the corrosive nature of treated wood chemicals. Interior sole plates shall be anchored or fastened to concrete foundation with fasteners of stainless steel, post hot dip galvanized or mechanically galvanized materials. Fasteners shall be spaced on more than 24 inches on center and installed with a minimum 1-inch washer. Fastener shall be a minimum length of 3.25 inches and penetrate into the foundation at least 1.50 inches. Fasteners or anchors shall be located within six inches of any sole plate cut out.

(5) *Chapter 6, Wall Construction.*

- (a) *Section R602.10.5.* Amend by adding an exception and figure to Section R602.10.5 to read as follows:

Exception: Vertical wall segments in the first story of a one-story or the first story of a two-story building next to a garage opening shall be permitted to have a 6:1 height-to-width ratio (with height being measured from top of header to sill plate) when constructed in accordance with the following provisions. Each panel shall have a length of not less than 16 inches (406 mm) and a height of not more than 10 feet (3,048 mm). Each panel shall be sheathed on one face with a single layer of 3/8-inch-minimum thickness (9.5mm) wood structural panel sheathing nailed with 8d galvanized box nails in accordance with Figure R602.10.5 (2). The wood structural panel sheathing shall extend up over the solid sawn or glued-laminated header and shall be nailed in accordance with Figure R602.10.5 (2). The header shall extend between the inside faces of the first full-length outer studs of each panel. The clear span of the header between the inner studs of each panel shall be not less than six feet (1,829 mm) and not more than 18 feet (5,486 mm) in length. A strap with an uplift capacity of not less than 1000 pounds (454 kg) shall fasten the header to the side of the inner studs opposite the sheathing. Two anchor bolts shall be installed in accordance with Section R403.1.6, and plate washers shall be a minimum of two inches by two inches by 3/16 inch (51 mm by 51 mm by 4.88 mm) thick and shall be used on each bolt. This exception is only permitted in Seismic Design Categories A-C.

Figure R602.10.5(2)
GARAGE DOOR BRACED WALL PANEL FOR USE WITH CONTINUOUSLY
SHEATHED WALLS



(Reason: To provide an alternate means of compliance.)

(6) *Chapter 7, Wall Coverings.*

- (a) *Section R703.7.4.1.* Amend by adding a second paragraph to Section R703.7.4.1 to read as follows:

For 3.25 square feet (0.302 m²) of wall area, the following dimensions shall be adhered to:

1. When ties are placed on studs 16 inches (407 mm) o.c., they shall be spaced no further apart than 29 inches (737 mm) vertically starting approximately 15 inches (381 mm) from the foundation.
2. When ties are placed on studs 24 inches (610 mm) o.c., they shall be spaced no further apart than 19 inches (483 mm) vertically starting approximately 10 inches (254 mm) from the foundation.

(7) *Chapter 9, Roof Assemblies.*

- (a) *Section R902.3.* Amend by adding a new Section R903.2 to read as follows:

Minimum roof class. All roof coverings shall be a minimum Class C. All individual replacement shingles or shakes shall be a minimum Class C.

Exception: Non-classified roof coverings shall be permitted on buildings of U-occupancies having not more than 120 square feet of projected roof area. When exceeding 120 square feet of projected roof area, buildings of U-occupancies may use non-rated non-combustible coverings.

- (b) *Section R907.1.* Amend by adding a sentence at the end of the first paragraph in Section R907.1 to read as follows:

All individual replacement shingles or shakes shall comply with Section R902.3.

- (8) *Chapter 11, Energy Efficiency.*

- (a) *Section N1101.2.1.* Amend by deleting the section in its entirety and adding a new Section N1101.2.1. to read as follows:

Compliance. Compliance with this chapter shall be demonstrated by one of the following:

1. Meeting the requirements of this chapter for buildings with a glazing area that does not exceed 15 percent of the gross area of exterior walls;
2. Meeting the requirements of this chapter for buildings with a glazing area that is greater than 15 percent but not exceeding 20 percent of the gross area of exterior walls and air conditioning equipment rated 12 SEER or higher;
3. Meeting the requirements of this chapter for buildings with a glazing area that is greater than 20 percent but not exceeding 25 percent of the gross area of exterior walls and air conditioning equipment rated 14 SEER or higher; or
4. Meeting the requirements of the *International Energy Conservation Code* for residential buildings, detached one- and two-family units.

- (b) *Section N1101.3.4.* Amend by adding a new Section N1101.3.4 to read as follows:

Exterior basement or slab insulation. When susceptibility to termite damage is classified as "very heavy" according to Table R301.2(1), designs employing basement or slab exterior insulation capable of harboring termites shall not be utilized.

- (c) *Section N1102.1.* Amend by deleting the section in its entirety and adding a new Section N1102.1 to read as follows:

Thermal performance criteria. The minimum required insulation R-value or maximum required U-factor for each element in the building thermal envelope (fenestration, roof/ceiling, opaque wall, floor, slab edge, crawl space wall and basement wall) shall be in accordance with the criteria in Table N1102.1.

Detached one- and two-family units with greater than 25 percent glazing area shall determine compliance using the building envelope requirements of Chapters 4 or 5 of the *International Energy Conservation Code*.

- (d) *Table N1102.1.* Amend by deleting the information concerning the .65 maximum glazing U-factor and minimum insulation R-value from the table and adding new information concerning the .65 maximum glazing U-factor and minimum insulation R-value from Table N1102.1 to read as follows:

MAXIMUM GLAZING U-FACTOR (Btu/(hr-ft ² *F))	MINIMUM INSULATION R-VALUE						Crawl space walls
	Ceiling Open to Attic Spaces	Ceiling Joist/Roof Rafter Assembly	Walls	Floors	Basement Walls	Slab Perimeter	
0.65	R-38	R-22	R-13	R-19	R-0	R-0	R-7 ^a

- a. Crawl space insulation is only required for structures with uninsulated floors.

Use of this table is limited to projects where the cathedral ceiling area is limited to one-third or less of the total ceiling area.

- (e) *Section N1102.1.6.* Amend by deleting the last sentence of the exception.
- (f) *Section N1102.2.* Amend by deleting the section in its entirety and adding a new Section N1102.2 to read as follows:

Maximum solar heat gain coefficient for fenestration products.
 The area-weighted-average solar heat gain coefficient (SHGC) for glazed fenestration installed in climate zones with less than 3,500 HDD shall not exceed 0.40.

Exceptions:

1. Any glazing facing within 45 degrees of true north.
2. 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.
3. Any fenestration with permanently attached screens where the screens have a rated shading coefficient of .6 or less.

(g) *Table N1103.5.* Amend Table 1103.5 and Footnote “b” to read as follows:

Cooling Systems	FLUID TEMP RANGE (°F)	INSULATION THICKNESS Inches^b
Chilled water, refrigerant or brine	40-55	.5
	Below 40	1.25

{Remainder of table unchanged.}

- b. For piping lengths in excess of five feet (1,524 mm) exposed to outdoor air, increase thickness by 0.5 inch (13 mm).

(9) *Chapter 13, General Mechanical System Requirements.*

(a) *Section M1305.1.3.* Amend by deleting the section in its entirety and adding a new Section M1305.1.3 to read as follows:

Appliances in attics. Attics containing appliances requiring access shall be provided with an opening and a clear and unobstructed passageway large enough to allow removal of the largest appliance, but not less than 30 inches (762 mm) high and 22 inches (559 mm) wide and not more than 20 feet (6,096 mm) in length when measured along the centerline of the passageway from the opening to the appliance. The passageway shall have continuous unobstructed solid flooring not less than 30 inches (762 mm). A level service space not less than 30 inches (762 mm) deep and 30 inches (762 mm) wide shall be present at the front or service side

of the equipment. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), or larger where such dimensions are not large enough to allow removal of the largest appliance. As a minimum, access to the attic space shall be provided by one of the following:

1. A permanent stair.
2. A pull-down stair.
3. An access door from an upper floor level.

Exception: The passageway and level service space are not required where the appliance is capable of being serviced and removed through the required opening.

- (b) *Section M1305.1.3.1.* Amend by adding a sentence to the end of the paragraph in Section M1305.1.3.1 to read as follows:

Low voltage wiring of 50 volts or less shall be installed in a manner to prevent physical damage.

- (c) *Section M1305.1.4.1.* Amend by deleting the section in its entirety and adding a new Section M1305.1.4.1 to read as follows:

Ground clearance. Appliances supported from the ground shall be level and firmly supported on a concrete slab or other approved material extending above the adjoining grade, a minimum of three inches (76 mm). Appliances suspended from the floor shall have a clearance of not less than six inches (152 mm) above the ground.

- (d) *Section M1305.1.4.3.* Amend by adding a sentence to the end of the paragraph in Section M1305.1.4.3 to read as follows:

Low voltage wiring of 50 volts or less shall be installed in a manner to prevent physical damage.

- (e) *Section M1305.1.5.* Amend by adding a new Section M1305.1.5 to read as follows:

Attic hot water heaters. Hot water heaters are prohibited from being installed within any attic cavity or space.

- (f) *Section M1307.3.1.* Amend by deleting Section M1307.3.1 in its entirety.

(10) *Chapter 15, Exhaust Systems.*

- (a) *Section M1501.2.* Amend by deleting the section in its entirety and adding a new Section M1501.2 to read as follows:

Exhaust duct size. The minimum diameter of the exhaust duct shall be as recommended by the manufacturer, and shall be at least the diameter of the appliance outlet and shall be a minimum nominal size of four inches (102 mm) in diameter. The size of duct shall not be reduced along its developed length nor at the point of termination.

- (b) *Section M1501.3.* Amend by deleting the first paragraph in the section in its entirety and adding a new first paragraph and exceptions to Section M1501.3 to read as follows:

Length limitation. The maximum length of a clothes dryer exhaust duct shall not exceed 25 feet (7,620 mm) from the dryer location to the wall or roof termination with not more than two bends. When extra bends are installed, the maximum length of the duct shall be reduced 2.5 feet (762 mm) for each 45-degree (0.79 rad) bend and five feet (1,524 mm) for each 90-degree (1.6 rad) bend that occurs after the first two bends, measuring in the direction of airflow. The maximum length of the exhaust duct does not include the transition duct.

Exceptions:

1. Where a clothes dryer booster fan is installed and listed and labeled for the application, the maximum length of the exhaust duct, including any transition duct, shall be permitted to be in accordance with the booster fan manufacturer's installation instructions. Where a clothes dryer booster fan is installed and not readily accessible from the room in which the dryer is located, a permanent identifying label shall be placed adjacent to where the exhaust duct enters the wall. The label shall bear the words: "This dryer exhaust system is equipped with a remotely located booster fan."
2. Where the make and model of the clothes dryer to be installed is known and the manufacturer's installation instructions for

such dryer are provided to the Building Official, the maximum length of the exhaust duct, including any transition duct, shall be permitted to be in accordance with the dryer manufacturer's installation instructions.

(11) *Chapter 20, Boilers/Water Heaters.*

- (a) *Section M2005.2.* Amend by deleting the section in its entirety and adding a new Section M2005.2 to read as follows:

Prohibited locations. Fuel-fired water heaters shall not be installed in a room used as a storage closet, sleeping room or bathroom. All fuel-fired water heaters installed within a unit shall be in a sealed enclosure so that combustion air will not be taken from the living space. The door to such an enclosure shall be self-closing and sealed to prevent air leakage. Direct-vent water heaters are not required to be installed within an enclosure.

(12) *Chapter 24, Fuel Gas.*

- (a) *Section G2408.3.* Amend by deleting Section G2408.3 in its entirety.
- (b) *Section G2413.3.* Amend by adding an exception to Section G2413.3 to read as follows:

Exception: Corrugated stainless steel tubing (CSST) shall be a minimum of one-half inch.

- (c) *Section G2415.6.* Amend by deleting the section in its entirety and adding a new Section G2415.6 to read as follows:

Piping in solid floors. Piping in solid floors shall be laid in channels in the floor and covered in a manner that will allow access to the piping with a minimum amount of damage to the building. Where such piping is subject to exposure to excessive moisture or corrosive substances, the piping shall be protected in an approved manner. As an alternative to installation in channels, the piping shall be installed in accordance with Section G2415.11 (404.11).

- (d) *Section G2415.9.* Amend by deleting the section in its entirety and adding a new Section G2415.9 to read as follows:

Minimum burial depth. Underground piping systems shall be installed a minimum depth of 18 inches (458 mm) below grade, except as provided for in Section G2414.9.1.

- (e) *Section G2415.9.1.* Amend by deleting Section G2415.9.1 in its entirety.
- (f) *Section G2417.1.* Amend section in its entirety and add a new Section G2417.1 to read as follows:

General. Prior to acceptance and initial operation, all piping installations shall be inspected and pressure tested to determine that the materials, design, fabrication, and installation practices comply with the requirements of this code. The permit holder shall make the applicable tests prescribed in Sections 2417.1.1 through 2417.7.4 to determine compliance with the provisions of this code. The permit holder shall give reasonable advance notice to the Building Official when the piping system is ready for testing. The equipment, material, power and labor necessary for the inspections and test shall be furnished by the permit holder and the permit holder shall be responsible for determining that the work will withstand the test pressure prescribed in the following tests.

- (g) *Section G2417.4.* Amend by deleting the section in its entirety and adding a new Section G2417.4 to read as follows:

Test pressure measurements. Test pressure shall be measured with a manometer or with a pressure measuring device designed and calibrated to read, record or indicate a pressure loss due to leakage during the pressure test period. The source of pressure shall be isolated before the pressure tests are made. The equipment used shall be of an appropriate scale such that pressure loss can be easily determined.

- (h) *Section G2417.4.1.* Amend by deleting the section in its entirety and adding a new Section G2417.4.1 to read as follows:

Test pressure. The test pressure to be used shall be not less than one and one-half times the proposed maximum working pressure, but not less than 10 psig (68.9 kPa gauge). The piping and valves may be tested at a pressure of at least six inches (152 mm) of mercury measured with a manometer or slope gauge. For welded piping and for piping carrying gas at pressures in excess of 14 inches water column pressure (3.48 kPa), the test pressure shall not be less than 60 pounds per square inch (413.4 kPa).

- (i) *Section G2417.4.2.* Amend by deleting the section in its entirety and adding a new Section G2417.4.2 to read as follows:

Test duration. Test duration shall be held for a length of time as established by departmental policy but in no case for less than 15 minutes. For welded piping and for piping carrying gas at pressures in excess of 14 inches water column pressure (3.48 kPa), the test duration shall be held for a length of time as established by departmental policy but in no case for less than 30 minutes.

- (j) *Section G2420.1.4.* Amend by adding a new Section G2420.1.4 to read as follows:

Valves in CSST installations. Shutoff valves installed with corrugated stainless steel (CSST) piping systems shall be supported with an approved termination fitting or equivalent support suitable for the size of the valves of adequate strength and quality, and located at intervals so as to prevent or dampen out excessive vibration but in no case greater than 12 inches from the center of the valve. Supports shall be installed so as not to interfere with the free expansion and contraction of the system's piping, fittings and valves between anchors. All valves and supports shall be designed and installed so they will not be disengaged by movement of the supporting piping.

- (k) *Section G2421.1.* Amend by adding a second paragraph and exception to Section G2421.1 to read as follows:

Access to regulators shall comply with the requirements for access to appliances as specified in Section M1305.

Exception: A passageway or level service space is not required when the regulator is capable of being serviced and removed through the required attic opening.

- (l) *Section G2439.5.1.* Amend by deleting the first paragraph in the section in its entirety and adding a new first paragraph to Section G2439.5.1 to read as follows:

Maximum length. The maximum length of a clothes dryer exhaust duct shall not exceed 25 feet (7,620 mm) from the dryer location to the outlet terminal with not more than two bends. When extra bends are installed, the maximum length of the duct shall be reduced 2.5 feet (762 mm) for each 45-degree (0.79 rad) bend and five feet (1,524 mm) for each 90-degree (1.6 rad) bend that occurs after the first two bends, measuring in the direction of airflow.

- (m) *Section G2445.2.* Amend by deleting the section in its entirety and adding a new Section G2445.2 to read as follows:

Prohibited use. One or more unvented room heaters shall not be used as the sole source of comfort heating in a unit.

Exception: Existing approved unvented heaters may continue to be used in units in accordance with the code provisions in effect when installed unless the Building Official determines an unsafe condition exists as described in the *International Fuel Gas Code*, Section 108.7.

- (n) *Section G2448.1.1.* Amend by deleting the section in its entirety and adding a new Section G2448.1.1 to read as follows:

Installation requirements. The requirements for water heaters relative to access, sizing, relief valves, drain pans and scald protection shall be in accordance with this code.

(13) *Chapter 25, Plumbing Administration.*

- (a) *Section P2503.5.1.* Amend by adding a second paragraph at the end of the first item in Section P2503.5.1 to read as follows:

Shower receptors shall be tested for water tightness by filling with water to the level of the rough threshold. The drain shall be plugged in a manner so that both sides of pans shall be subjected to the test at the point where it is clamped to the drain.

- (b) *Section P2503.7.2.* Amend by deleting the section in its entirety and adding a new Section P2503.7.2 to read as follows:

Testing. Reduced pressure principle backflow preventers, double-check valve assemblies, double-detector check assemblies and pressure vacuum breaker assemblies shall be tested at the time of installation, immediately after repairs or relocation and at regular intervals as required by applicable state or local provisions.

(14) *Chapter 26, General Plumbing Requirements.*

- (a) *Section P2603.2.1.* Amend by deleting the section in its entirety and adding a new Section P2603.2.1 to read as follows:

Protection against physical damage. In concealed locations where piping other than cast iron or galvanized steel is installed through

holes or notches in studs, joists, rafters or similar members less than 1.5 inches (38 mm) from the nearest edge of the member, the pipe shall be protected by shield plates. Protective shield plates shall be a minimum of .062-inch-thick (1.6 mm) steel, and shall cover the area of the pipe where the member is notched or bored.

- (b) *Section P2603.6.1.* Amend by adding a new Section P2603.6.1 to read as follows:

Sewer depth. Building sewers shall be a minimum of 12 inches (304 mm) below grade.

(15) *Chapter 27, Plumbing Fixtures.*

- (a) *Section P2709.1.* Amend by adding an exception to Section P2709.1 to read as follows:

Exception: Showers designed to comply with ICC/ANSI A117.1.

(16) *Chapter 28, Water Heaters.*

- (a) *Section P2801.4.* Amend by adding a third exception to Section 2801.4 to read as follows:

Exceptions:

3. Hot water heaters are prohibited from being installed within any attic space or cavity.

- (b) *Section P2801.6.* Amend by adding an exception to Section P2801.6 to read as follows:

Exception: Elevation of the ignition is not required for water heaters that are listed as flammable vapor resistant and for installation without elevation.

(17) *Chapter 29, Water Supply and Distribution.*

- (a) *Section P2902.4.3.* Amend by deleting the first sentence in its entirety and adding a new first sentence to read as follows:

Lawn irrigation systems. The potable water system to lawn irrigation systems shall be protected against backflow by an atmospheric-type vacuum breaker, a pressure-type vacuum breaker, a double-check assembly or a reduced pressure principle backflow preventer.

- (b) *Section P2902.4.3.1.* Amend by adding a new Section P2902.4.3.1 to read as follows:

Rain and freeze sensors. All new irrigation systems installed and permitted after the effective date of this ordinance shall include installation of operational rain and freeze sensors.

- (c) *Section P2902.4.3.2.* Amend by adding a new Section P2902.4.3.2 to read as follows:

Irrigation backflow tests. All irrigation backflow devices shall be tested by a currently licensed and registered State of Texas Backflow Tester, using currently certified calibrated gauges. The irrigation backflow device test shall be observed by the City of Mesquite Public Works Backflow Inspector during regular working hours determined by departmental policy.

- (d) *Tables P2904.4.1 and P2904.5.* Amend by deleting all references to the following materials in Tables P2904.4.1 and P2904.5:

- Polybutylene (PB) plastic pipe and tubing;
- Chlorinated polyvinyl chloride (CPVC) plastic and tubing;
- Cross-link polyethylene (PEX) plastic tubing; and
- Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX).

- (e) *Sections P2904.5.1, P2904.14 and P2904.9.1.4.* Amend by deleting all references to the following materials in Sections P2904.5.1, P2904.14 and P2904.9.1.4:

- Polybutylene (PB) plastic pipe and tubing;
- Chlorinated polyvinyl chloride (CPVC) plastic and tubing;
- Cross-link polyethylene (PEX) plastic tubing; and
- Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX).

(18) *Chapter 30, Sanitary Drainage.*

- (a) *Section P3005.2.6.* Amend by deleting the section in its entirety and adding a new Section P3005.2.6 to read as follows:

Upper terminal. Each horizontal drain shall be provided with a cleanout at its upper terminal.

Exception: Cleanouts may be omitted on a horizontal drain less than five feet (1,524 mm) in length unless such line is serving sinks or urinals.

(19) *Chapter 31, Vents.*

- (a) *Section P3103.1.* Amend by deleting the section in its entirety and adding a new Section P3103.1 to read as follows:

Roof extension. All open vent pipes which extend through a roof shall be terminated at least six inches (152 mm) above the roof except that where a roof is to be used for any purpose other than weather protection, the extensions shall be run at least seven feet (2,134 mm) above the roof.

- (b) *Section P3105.2.* Amend by deleting the section in its entirety and adding a new Section P3105.2 to read as follows:

Fixture drains. The total fall in a fixture drain due to slope shall not exceed one pipe diameter, nor shall the vent pipe connection to a fixture drain, except for water closets, be below the weir of the trap.

- (c) *Section 3105.3.* Amend by deleting Section P3105.3 in its entirety.

- (d) *Section P3111.* Amend by deleting Section P3111 in its entirety.

- (e) *Section P3111.2.* Amend by deleting the section in its entirety and adding a new Section P3111.2 to read as follows:

Installation. Traps for island sinks and similar equipment shall be roughed in above the floor and may be vented by extending the vent as high as possible, but not less than the drainboard height and then returning it downward and connecting it to the horizontal sink drain immediately downstream from the vertical fixture drain. The return vent shall be connected to the horizontal drain through a wye-branch fitting and shall, in addition, be provided with a foot vent taken off the vertical fixture vent by means of a wye-branch immediately below the floor and extending to the nearest partition and then through the roof to the open air or may be connected to other vents at a point not less than six inches (152 mm) above the flood level rim and a minimum slope of one-quarter inch per foot (20.9 mm/m) back to the drain shall be maintained. The return bend used under the drainboard shall be a one-piece fitting or an assembly of a 45-degree (0.79 radius), a 90-degree (1.6 radius) and a 45-degree (0.79 radius) elbow in the order named. Pipe sizing

shall be as elsewhere required in this Code. The island sink drain, upstream of the return vent, shall serve no other fixtures. An accessible cleanout shall be installed in the vertical portion of the foot vent.

- (20) *Electrical Chapters 33, 34, 35, 36, 37, 38, 39, 40, 41 and 42.* Amend by deleting the chapters in their entirety and adding a referral notice to Chapters 33, 34, 35, 36, 37, 38, 39, 40, 41 and 42 to read as follows:

Refer to the adopted *National Electrical Code* for all references regarding electrical installations within the *International Residential Code*.

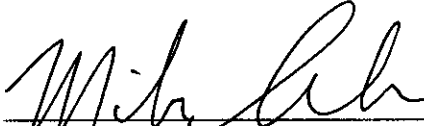
SECTION 2. That all ordinances or portions thereof in conflict with the provisions of this ordinance, to the extent of such conflict, are hereby repealed. To the extent that such ordinances or portions thereof are not in conflict herewith, the same shall remain in full force and effect.

SECTION 3. That should any word, sentence, clause, paragraph or provision of this ordinance be held to be invalid or unconstitutional, the validity of the remaining provisions of this ordinance shall not be affected and shall remain in full force and effect.

SECTION 4. That any person, firm or corporation violating any of the provisions or terms of this ordinance shall be deemed to be guilty of a Class C Misdemeanor and upon conviction in the Municipal Court shall be punished by a fine not to exceed Two Thousand (\$2,000.00) Dollars for each offense.

SECTION 5. That this ordinance shall take effect on August 1, 2005.

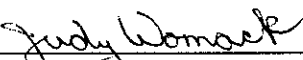
DULY PASSED AND APPROVED by the City Council of the City of Mesquite, Texas, on the 6th day of June, 2005.




Mike Anderson
Mayor

ATTEST:

APPROVED:



Judy Womack
City Secretary



B. J. Smith
City Attorney