

EXHIBIT "A"

**City of Mansfield
Amendments to the
2006 International Fuel Gas Code
North Central Texas Council of Governments Region**

Section 101.1; change to read as follows:

101.1 Title. These regulations shall be known as the *Fuel Gas Code* of the City of Mansfield hereinafter referred to as "this code."

Section 102.2; add an exception to read as follows:

Exception: Existing dwelling units shall comply with Section 621.2.

(Reason: Previous code provisions made unvented heater provisions retroactive except as provided for in local amendment. This amendment and amendment to IFGC 621.2 better clarifies what the code already states: existing systems may stay unless considered unsafe.)

Section 102.8; change to read as follows:

102.8 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 8 and such codes, when specifically adopted, and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and the referenced standards, the provisions of this code shall apply. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the ICC Electrical Code shall mean the Electrical Code as adopted.

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

Section 106.5.2; change to read as follows:

106.5.2 Fee schedule. Fees for work to fuel gas systems shall be in accordance with the City of Mansfield plumbing permit fee schedule.

Section 106.5.3; change #2 and #3 to read as follows:

106.5.3 Fee refunds. The code official shall authorize the refunding of fees as follows.

1. The full amount of any fee paid hereunder which was erroneously paid or collected.
2. Not more than 80 percent (80%) of the permit fee paid when no work has been done under a permit issued in accordance with this code.
3. Not more than 80 percent (80%) of the plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any plan review effort has been expended.

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The code official shall not authorize the refunding of any fee paid, except upon written application filed by the original permittee not later than 180 days after the date of fee payment.

(Reason: The need to establish an amount for fee refunds.)

Add Section 106.5.4 to read as follows:

106.5.4 Reinspection fees. A reinspection fee may be assessed for each inspection when such portion of work for which inspection is called is not complete or when corrections called for are not made.

This section is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with the requirements of this code, but as controlling the practice of calling for inspections before the job is ready for such inspection or reinspection.

Reinspection fees may be assessed at the inspector's discretion when the approved plans are not readily available to the inspector, for failure to provide access on the date for which inspection is requested, repeated violations, or for deviating from plans requiring the approval of the building official.

In instances where reinspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid. Reinspection fees shall be in accordance with the City of Mansfield plumbing permit fee schedule.

(Reason: To clarify the need for and use of reinspection fees. Consistent with amendment to IBC 108.7.)

Section 108.4; change to read as follows:

108.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter or repair mechanical work in violation of the approved construction documents or directive of the code official, or of a permit or certificate issued under the provisions of this code, shall be guilty of a misdemeanor, punishable by a fine of not more than two thousand dollars (\$2,000), ~~or by imprisonment not exceeding [number of days], or both such fine and imprisonment.~~ Each day that a violation continues after due notice has been served shall be deemed a separate offense.

Section 108.5; change to read as follows:

108.5 Stop work orders. Upon notice from the code official that mechanical work is being done contrary to the provisions of this code or in a dangerous or unsafe manner, such work shall immediately cease. Such notice shall be in writing and shall be given to the owner of the property, or to the owner's agent, or to the person doing the work. The notice shall state the conditions under which work is authorized to resume. Where an emergency exists, the code official shall not be required to give a written notice prior to stopping the work. Any person who shall continue any work on the system after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine as specified in Section 108.4.

Section 304.10; change to read as follows:

304.10 Louvers and grilles. The required size of openings for combustion, ventilation and dilution air shall be based on the net free area of each opening. Where the free area through a design of louver, grille or screen is known, it shall be used in calculating the size opening required to provide the free area specified. Where the design and free area of louvers and grilles are not known, it shall be assumed that wood louvers will have 25-percent free

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area and metal louvers and grilles will have ~~75~~ 50-percent free area. Screens shall have a mesh size not smaller than ¼ inch (6.4 mm). Non-motorized louvers and grilles shall be fixed in the open position. Motorized louvers shall be interlocked with the appliance so that they are proven to be in full open position prior to main burner ignition and during main burner operation. Means shall be provided to prevent the main burner from igniting if the louvers fail to open during burner start-up and to shut down the main burner if the louvers close during operation.

(Reason: This is the generally accepted practice in the region.)

Section 304.11; change Exception 8 to read as follows:

304.11 Combustion air ducts. Combustion air ducts shall comply with all of the following:

1. Ducts shall be constructed of galvanized steel complying with Chapter 6 of the *International Mechanical Code* or of a material having equivalent corrosion resistance, strength and rigidity.

Exception: Within dwellings units, unobstructed stud and joist spaces shall not be prohibited from conveying combustion air, provided that not more than one required fireblock is removed.

2. Ducts shall terminate in an unobstructed space allowing free movement of combustion air to the appliances.
3. Ducts shall serve a single enclosure.
4. Ducts shall not serve both upper and lower combustion air openings where both such openings are used. The separation between ducts serving upper and lower combustion air openings shall be maintained to the source of combustion air.
5. Ducts shall not be screened where terminating in an attic space.
6. Horizontal upper combustion air ducts shall not slope downward toward the source of combustion air.
7. The remaining space surrounding a chimney liner, gas vent, special gas vent or plastic piping installed within a masonry, metal or factory-built chimney shall not be used to supply combustion air.

Exception: Direct-vent gas-fired appliances designed for installation in a solid fuel-burning fireplace where installed in accordance with the manufacturer's instructions.

8. Combustion air intake openings located on the exterior of a building shall have the lowest side of such openings located not less than twelve inches (12") (305 mm) vertically from the adjoining grade level or the manufacturer's recommendation, whichever is more stringent.

(Reason: To recognize the manufacturer's installation requirements.)

Section 305.5 Private garages; delete.

(Reason: This provision does not reflect standard practice in this area. Consistent with regional amendment to IMC 304.6.)

Section 305.7; change to read as follows:

305.7 Clearances from grade. Equipment and appliances installed at grade level shall be supported on a level concrete slab or other approved material extending a minimum of three inches (3") (76 mm) above adjoining grade or shall be suspended a minimum of six inches (6") (152 mm) above adjoining grade.

(Reason: Consistent with current local practice. Consistent with regional amendment to IMC 304.9.)

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Section 306.3; change to read as follows:

306.3 Appliances in attics. Attics containing appliances requiring access shall be provided...~~{bulk of paragraph unchanged}~~...from the opening to the equipment. The passageway shall have continuous unobstructed solid flooring not less than ~~24~~ 30 inches (~~610~~ 762 mm) wide. 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, for access to the attic space provide one of the following:

1. A permanent stair.
2. A pull down stair.
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.

Exceptions:

1. The passageway and level service space are not required where the appliance is capable of being serviced and removed through the required opening.
2. Where the passageway is unobstructed and not less than 6 feet (1829 mm) high and 22 inches wide for its entire length, the passageway shall be not greater than 50 feet (15,250 mm) in length.

(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 IMC 306.3.)

Section 306.5; change to read as follows:

306.5 Equipment and appliances on roofs or elevated structures. Where equipment and appliances requiring access are installed on roofs or elevated structures at a an aggregate height exceeding 16 feet (4877 mm), such access shall be provided by a permanent approved means of access., ~~the extent of which shall be from Permanent 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 appliance's level service space. Such access shall...~~{bulk of section to read the same}~~...on roofs having a slope greater than 4 units vertical in 12 units horizontal (33-percent slope).

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

Section 306.5.1; change to read as follows:

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~~ on roofs having slopes greater than 4 units vertical in 12 units horizontal 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*.

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

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Add Section 306.7 to read as follows:

306.7 Water heaters above ground or floor. When the attic, roof, mezzanine or platform in which a water heater is installed is more than eight feet (8') (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 a water heater is installed is not more than ten feet (10') (3048 mm) above the ground or floor level and may be reached with a portable ladder.

306.7.1 Whenever the mezzanine or platform is not adequately lighted or access to a receptacle outlet is not obtainable from the main level, lighting and a receptacle outlet shall be provided in accordance with section 306.3.1.

(Reason: To provide safe access to water heaters. Consistent with regional amendments to IPC 502.5 and IMC 306.7)

Section 401.5; add a second paragraph to read as follows:

Both ends of each section of medium pressure corrugated stainless steel tubing (CSST) shall identify its operating gas pressure with an approved tag. The tags are to be composed of aluminum or stainless steel and the following wording shall be stamped into the tag:

“WARNING
1/2 to 5 psi gas pressure
DO NOT REMOVE”

(Reason: To protect homeowners and plumbers.)

Section 402.3; add an exception to read as follows:

Exception: Corrugated stainless steel tubing (CSST) shall be a minimum of 1/2" (18 EHD).

(Reason: Pipe less than 1/2" has a history in this region of causing whistling.)

Section 404.5; change to read as follows:

404.5 Protection against physical damage: In concealed locations where piping other than black or galvanized steel is installed through holes or notches in wood studs, joists, rafters or similar members less than 1.5 inches (38mm) from the nearest edge of the member, the pipe shall be protected by shield plates. Shield plates shall be a minimum of 1/16 inch-thick (1.6 mm) steel, shall cover the area of the pipe where the member is notched or bored and shall extend a minimum of 4 inches (102 mm) above sole plates, below top plates and to each side of a stud, joist or rafter. In addition, where corrugated stainless steel tubing (CSST) is installed in a concealed location and parallel to any stud, joist, rafter, or similar member or above the top plates adjacent to the roof deck it shall be encased in a protective metal pipe made of schedule 40 steel or iron pipe or in a protective flexible pipe sleeve listed by the manufacturer to a point a minimum of six feet (6') (1829 mm) into the attic space clear of any insulation or ceiling assemblies.

(Reason: To provide added protection against physical damage in concealed locations and areas with close proximity to roof decks.)

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Section 404.9; change to read as follows:

404.9 Minimum burial depth. Underground piping systems shall be installed a minimum depth of 42 18 inches (~~305~~ 458 mm) to top of pipe below grade, except as provided for in Section 404.9.1.

(Reason: To provide increased protection to piping systems.)

Section 404.9.1; delete.

(Reason: Individual lines should also be buried to 18 inches.)

Section 406.1; change to read as follows:

406.1 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 406.1.1 through 406.1.5 to determine compliance with the provisions of this code. The permit holder shall give reasonable advance notice to the code 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.

(Reason: To utilize language used in the IPC regarding who is responsible for testing procedures.)

Section 406.4; change to read as follows:

406.4 Test pressure measurement. 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 caused by leakage during the pressure test period. Gauges shall be calibrated annually and have a current calibration sticker affixed to the gauge. The source of pressure shall be isolated before the pressure tests are made. Spring gauges shall not be used.

(Reason: To require the use of more accurate diaphragm gauges. Spring gauges do not provide accurate measurement below approximately 17 psig.)

Section 406.4.1; change to read as follows:

406.4.1 Test pressure. ~~The test pressure to be used shall not be less than 1½ times the proposed maximum working pressure, but not less than 3 psig (20 kPa gauge), or at the discretion of the code official, the piping and valves may be tested at a pressure of at least six (6) inches (152 mm) of mercury, measured with a manometer or slope gauge, irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe. For tests requiring a pressure of 3 psig, mechanical diaphragm gauges used to measure test pressures shall utilize a dial with a minimum diameter of three and one half inches (3 ½"), a set hand, 1/10 pound incrementation and pressure range not to exceed 6 psi for tests requiring a pressure of 3 psig. For tests requiring a pressure of 10 psig, mechanical diaphragm gauges shall utilize a dial with a minimum diameter of three and one-half inches (3 ½"), a set hand, a minimum of 2/10 pound incrementation and a pressure range not to exceed 20 psi. have a range such that the highest end of the scale is not greater than five times the test pressure. For welded piping, and for piping carrying gas at pressures in excess of fourteen inches (14") water column pressure (3.48 kPa) (1/2 psi) and less than 200 inches of water column pressure (52.2 kPa) (7.5 psi), the test~~

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pressure shall not be less than ten (10) pounds per square inch (69.6 kPa). For piping carrying gas at a pressure that exceeds 200 inches of water column (52.2 kPa) (7.5 psi), the test pressure shall be not less than one and one-half times the proposed maximum working pressure.

(Reason: To provide for lesser pressures to coordinate with the use of more accurate diaphragm gauges.)

Section 406.4.2; change to read as follows:

406.4.2 Test duration. Test duration shall be held for a length of time satisfactory to the code official, but in no case for not less than fifteen (15) minutes. For welded piping and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa), the test duration shall be held for a length of time satisfactory to the code official, but in no case less than thirty (30) minutes. (Delete remainder of section.)

(Reason: To comply with accepted regional practices.)

Add Section 409.1.4 to read as follows:

409.1.4 Valves in CSST installations. Shutoff valves installed with corrugated stainless steel (CSST) piping 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 damp 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.

(Reason: To provide proper security to CSST valves. These standards were established in this region in 1999 when CSST was an emerging technology.)

Section 410.1; add a second paragraph and exception to read as follows:

Access to regulators shall comply with the requirements for access to appliances as specified in Section 306.

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.

(Reason: To require adequate access to regulators)

Section 614.6; add a sentence to read as follows:

The size of duct shall not be reduced along its developed length nor at the point of termination.

(Reason: To clarify the size requirement. Consistent with regional amendment to IMC 504.6.)

Section 614.6.1; change to read as follows:

614.6.1 Maximum length. The maximum length of a clothes dryer exhaust duct shall not exceed 25 feet (25') (7620 mm) from the dryer location to the outlet terminal. The maximum length of the duct shall be reduced 2 ½ feet (762 mm) for each 45-degree (0.79 rad) bend and 5 feet (1524 mm) for each 90-degree (1.6 rad) bend. The maximum length of the exhaust duct does not include the transition duct.

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Exception: 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 code 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, and provided that a four inch (4") by six inch (6") sign red in color with white letters is permanently affixed to the structure stating the following:

Warning: Dryer must be approved for vent length not to exceed 40 feet total developed length (TDL.)

Duct Size: (Number)

Total Developed Length: (Number)

(Reason: To make more consistent with regional practice. Dryer technology has improved to the point where they should be capable of handling this. Consistent with regional amendment to IFGC Section 614.6.1.)

Section 621.2; change to read as follows:

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

Exception: Existing approved unvented heaters may continue to be used in dwelling units, in accordance with the code provisions in effect when installed, when approved by the code official unless an unsafe condition is determined to exist as described in Section 108.7.

(Reason: Gives code official discretion.)

Section 624.1.1; change to read as follows:

624.1.1 Installation requirements. The requirements for water heaters relative to access, sizing, relief valves, drain pans and scald protection shall be in accordance with the *International Plumbing Code*.

(Reason: To clarify installation requirements. Also corresponds with amendments regarding water heater access.)

END

***NOTE:** Underlining indicates new words and phrases to be added to the 2006 International Fuel Gas Code. ~~Strikeouts~~ indicate existing words and phrases to be deleted.