

**Recommended Amendments to the  
2000 International Residential Code**  
North Central Texas Council of Governments region

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**\*\*Section R102.4; change to read as follows:**

**R102.4 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 codes 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.

Where differences occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

**Exception:** Where enforcement . . . *{remainder of exception unchanged}*. . . .

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

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**\*\*Section R105.2, item #1; change as follows:**

1. One-story detached accessory structures, provided the floor area does not exceed ~~200~~ 120 square feet (~~18.58~~ 11.15 m<sup>2</sup>).

(Reason: Change corresponds to unamended IBC Section 105.2.)

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**\*\*Section R109.1.3; change to read as follows:**

**R109.1.3 Floodplain inspections.** For construction permitted in areas prone to flooding as established by Table R301.2(1), upon . . . *{bulk of section unchanged}* . . . construction, the building official may ~~shall~~ require submission . . . *{remainder of section unchanged}*.

(Reason: Confirmation of elevation is left to local discretion.)

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**\*\*Section R110 (R110.1 through R110.4); delete.**

(Reason: Issuing CO's for residences is not a common practice in the area.)

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**\*\*Section R112.2.2; delete.**

(Reason: Floodplain provisions are addressed locally.)

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**\*\*Section R202; change definition of "Townhouse" to read as follows:**

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

(Reason: Consistent with terminology commonly used in this region.)

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

Roof Snow Load	Wind	Seismic Design Category <sup>f,g</sup>
	Speed <sup>e</sup> (mph)	
5 lb/ft <sup>2</sup>	90 (3-sec-gust)/75 fastest mile	A

Subject to damage from				Winter Design Temp <sup>f</sup>	Flood Hazards <sup>h</sup>
Weathering <sup>a</sup>	Frost line depth <sup>b</sup>	Termite <sup>c</sup>	Decay <sup>d</sup>		
moderate	6"	very heavy	slight to moderate	22° F	local code

**\*\*Section R302.1; add a second exception as follows:**

**Exceptions:**

1. Tool and storage sheds, playhouses and similar structures exempted from permits by Section R105.2 are not required to provide wall protection based on location on the lot. Projections beyond the exterior wall shall not extend over the lot line.
2. Open metal carport structures may be constructed within zero (0) feet of the property line without fire-resistive or opening protection when the location of such is approved as required by other adopted ordinances.

(Reason: Refers to other ordinances, such as zoning ordinances.)

**\*\*Section R303.3, exception; change 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.

(Reason: Consistent with common local practice.)

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**\*\*Section R303.6; change to read as follows:**

**R303.6 Required heating.** ~~When the winter design temperature in Table R301.2(1) is below 60°F (16°C), every~~ Every dwelling unit shall be provided with heating facilities capable of maintaining a minimum room temperature of 68°F (20°C) at a point 3 feet (914 mm) above the floor and 2 feet (610 mm) from exterior walls in all habitable rooms at the design temperature.

(Reason: Specifies requirement for this area.)

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**\*\*Section R314.8; change to read as follows:**

**R314.8 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 ~~1/2-inch (12.7 mm)~~ gypsum board or one-hour fire-resistive construction.

(Reason: Represents the standard protection method used in this area.)

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**\*\*Section R321.1; add a second exception to read as follows:**

**Exceptions:**

1. *{existing exception unchanged}*
2. Two-family dwelling units that are also divided by a property line through the structure shall be separated as required for townhouses.

(Reason: Provide guidance for a common construction method in this area. Correlates with amendment to IRC Section R202 Townhouse definition.)

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**\*\*Section R322.1; change to read as follows:**

**R322.1 Moisture control.** In all framed walls, floors and roof/ceilings comprising elements of the building thermal envelope, a vapor retarder, when installed, shall be installed in a manner so as to not trap moisture ~~on the warm-in-winter side of the insulation.~~  
(delete the exceptions)

(Reason: This eliminates the requirement of a vapor retarder throughout the NCTCOG region, while giving reasonable guidance if a vapor retarder is installed. Eliminating vapor retarders in hot and humid climate zones is consistent with the recommendation of most building scientists.)

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**\*\*Section R327.1; change to read as follows:**

**R327.1 General.** All buildings and structures, when permitted to be erected in areas prone to flooding . . . *{bulk of section unchanged}* . . . areas (including V-Zones), shall be constructed and elevated as required by the provisions contained in this section or by other local provisions as applicable.

(Reason: Recognize other local provisions.)

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**\*\*Section R703.7.4.1; add a second paragraph to read as follows:**

For 3¼ square feet (0.302 m<sup>2</sup>) of wall area, the following dimensions shall be adhered to:

1. When ties are placed on studs 16" o.c., they shall be spaced no further apart than 29" vertically starting approximately 15" from the foundation.
2. When ties are placed on studs 24" o.c., they shall be spaced no further apart than 19" vertically starting approximately 10" from the foundation.

(Reason: Provide easy to install and inspect dimensions for clarity.)

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**\*\*Section R703.7.4.2; add a second paragraph to read as follows:**

When using ties that will flex when pushed, spot bedding of cement mortar shall be installed on all ties.

(Reason: To prevent masonry veneer walls from having movement when pushed upon.)

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**\*\*Add Section R902.3 to read as follows:**

**R902.3 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 sq.ft. of projected roof area. When exceeding 120 sq.ft. of projected roof area, buildings of U occupancies may use non-rated non-combustible coverings.

(Reason: Consistent with local practice.)

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**\*\*Section R907.1; add a sentence to read as follows:**

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

(Reason: Consistent with local practice. Correlates with regional amendment to R902.3.)

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**\*\*Section R1005.2; changed to read as follows:**

**R1005.2 Exterior air intake.** The exterior air intake shall be capable of providing all combustion air from the exterior of the dwelling or from spaces within the dwelling ventilated with outside air such as ~~crawl~~ or attic spaces. The . . . {remainder of section unchanged}.

(Reason: Problems have arisen with using crawl space ventilation.)

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**\*\*Section N1101.2; amend as follows:**

**N1101.2.1 Residential Buildings, Type A-1.** Compliance shall be demonstrated by ~~either~~ 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; ~~or~~
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, Type A-1.

(Reason: This amendment would increase the number of builders who could use this "simplified prescriptive" approach of the IRC. It accommodates particularly the move-up and luxury homes with large glazing areas. The trade-off with air-conditioning is an option under the IECC systems analysis or MECcheck approach, and is brought into this format for convenience only. Other IECC trade-offs would also remain available. The intent is to maintain compatibility with the IECC. The intent would include adjustment of this provision at such future date that the minimum federal equipment standards are raised to achieve equivalent increases in energy savings.)

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**\*\*Add Section N1101.3.4 to read as follows:**

**N1101.3.4 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.

(Reason: Usage of exterior insulation provides access for termites. This amendment does not preclude the use of insulating coatings that do not provide termite access or shelter.)

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**\*\*Section N1102.1 amend as follows:**

**N1102.1 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 ~~N101.4.2.5 of the *International Energy Conservation Code*~~ N1102.1.

Residential building, Type A-1, with greater than ~~45~~25-percent glazing area; residential buildings, Type A-2, with greater than 25-percent glazing area; and any building in climates with HDD equal to or greater than 13,000; shall determine compliance using the building envelope requirements of the *International Energy Conservation Code*.

(Reason: This amendment corrects an error in the section and is compatible with the previous amendment increasing allowable glazing area, effectively increasing the number of builders who could use the "simplified prescriptive" approach of the IRC.)

**\*\*Replace Table N1102.1 with:**

**TABLE N1102.1  
SIMPLIFIED PRESCRIPTIVE BUILDING ENVELOPE THERMAL COMPONENT CRITERIA  
MINIMUM REQUIRED THERMAL PERFORMANCE (U-FACTOR AND R-VALUE)**

MAXIMUM GLAZING U-FACTOR [Btu/(hr·ft <sup>2</sup> ·°F)]	MINIMUM INSULATION R-VALUE [(hr·ft <sup>2</sup> ·°F)/Btu]						
	Ceilings open to Attic Space	Ceiling Joist/Roof Rafter Assembly	Walls	Floors	Basement Walls	Slab perimeter	Crawl space walls
0.65	R-38	R-22	R-13	R-19	R-0	R-0	R-0

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.

(Reason: This amendment is compatible with the previous amendments increasing the number of builders who could use the "simplified prescriptive" approach of the IRC and incorporates the Home Builder Association prescriptive package proposal. The addition of "Ceiling Joist/Roof Rafter Assembly" requirements protect such assemblies from the damage likely to occur if greater amounts of insulation were attempted in such assemblies.)

**Section N1102.2 amend as follows:**

**N1102.2 Maximum solar heat gain coefficient for fenestration products.** The area-weighted-average solar heat gain coefficient (SHGC) for glazed fenestration installed in climate zones 4 and 2 (to a maximum of with less than 3,500 HDD) shall not exceed 0.40.

(Reason: This amendment corrects a printing error in the IRC and avoids confusion over the intent to maintain consistency with requirements of the IECC.)

**\*\*Add Section M1304.2 to read as follows:**

**M1304.2 Minimum burial depth.** Underground fuel piping systems shall be installed a minimum depth of 18 inches (458 mm) below grade.

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

**\*\*Section M1305.1.3; change to read as follows:**

**M1305.1.3 Appliances in attics.** Attics containing appliances requiring access shall be provided . . . *{bulk of paragraph unchanged}* . . . sides of the appliance where access is required. 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.

(Reason: To provide a safe means of accessibility to appliances in attics.)

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**\*\*Add Section M1305.1.5, M1305.1.5.1 to read as follows:**

**M1305.1.5 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.

**M1305.1.5.1** 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 M1305.1.3.1.

(Reason: To provide safe access to water heaters and to provide lighting and receptacle for maintenance of equipment.)

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**\*\*Section M1305.1.3.1; add a sentence to read as follows:**

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

(Reason: To call attention to the need for care while installing lighting wiring in attic.)

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**\*\*Section M1305.1.4.1; change to read as follows:**

**M1305.1.4.1 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 3 inches (76 mm). Appliances suspended from the floor shall have a clearance of not less than 6 inches (152 mm) above the ground.

(Reason: Consistent with current local practice.)

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**\*\*Section M1305.1.4.3; add a sentence to read as follows:**

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

(Reason: To call attention to the need for care while installing lighting wiring under floors.)

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**\*\*Section M1307.3.1; delete.**

(Reason: This provision does not reflect standard practice in this area.)

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**\*\*Section M1501.2; change to read as follows:**

**M1501.2 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 4 inches (102 mm) in diameter. The size of duct shall not be reduced along its developed length nor at the point of termination.

(Reason: To clarify the size requirement.)

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**\*\*Section M1501.3; change to read as follows:**

**M1501.3 Length limitation.** The maximum length of a clothes dryer exhaust duct shall not exceed 25 feet (7620 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 5 feet (1524 mm) for each 90-degree (1.6 rad) bend that occur after the first two bends, measuring in the direction of airflow. The maximum length of the exhaust duct does not include the transition duct.

*{Exception is unchanged}*

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

**\*\*Section M1601.3.4, item #1; change to read as follows:**

1. Duct insulation shall conform to the requirements of Table M1601.3.4 and Section N1101.2. Should there be any conflicts between this section and the energy efficiency provisions, the energy efficiency provisions shall take precedence.

A vapor retarder in accordance with Table M1601.3.4 ~~having a maximum permeance of 0.05 perm [2.87 ng/(s · m<sup>2</sup> · Pa)] in accordance with ASTM E 96,~~ or aluminum foil having a minimum thickness of 2 mils (0.051 mm), shall be installed on the exterior of insulation on cooling supply ducts that pass through nonconditioned spaces conducive to condensation.

Insulations having a permeance of 0.05 perms [2.87 ng/(Pa · s · m<sup>2</sup>)] or less shall not be required to be covered.

(Reason: To indicate presiding code and reference to Table M1601.3.4. See next amendment.)

**\*\*Add Table M1601.3.4 to read as follows:**

**Table M1601.3.4 - Insulation of Ducts**

Duct Location	Insulation Types Mechanically Cooled	Heating Zone <sup>1</sup>	Insulation Types Heating Only
On roof on exterior of building	C, V <sup>2</sup> and W	I II III	A and W B and W C and W
Attics, garages and crawl spaces	A and V <sup>2</sup>	I II III	A A B
In walls <sup>3</sup> , within floor-ceiling spaces <sup>3</sup>	A and V <sup>2</sup>	I II III	A A B
Within the conditioned space or in basements; return ducts in air plenums	None required		None required
Cement slab or within ground	None required		None required



**Note:** Where ducts are used for both heating and cooling, the minimum insulation shall be as required for the most restrictive condition.

<sup>1</sup> Heating Degree Days:

- Zone I below 4,500 D.D.
- Zone II 4,501 to 8,000 D.D.
- Zone III over 8,000 D.D.

<sup>2</sup> Vapor retarders shall be installed on supply ducts in spaces vented to the outside in geographic areas where the summer dew point temperature based on the 2 ½ percent column of dry-bulb and mean coincident wet-bulb temperature exceeds 60° F. (15.4° C).

<sup>3</sup> Insulation may be omitted on that portion of a duct which is located within a wall- or a floor-ceiling space where:

- <sup>3.1</sup> Both sides of the space are exposed to conditioned air.
  - <sup>3.2</sup> The space is not ventilated.
  - <sup>3.3</sup> The space is not used as a return plenum.
  - <sup>3.4</sup> The space is not exposed to unconditioned air.
- Ceilings which form plenums need not be insulated.

INSULATION TYPES<sup>4</sup> :

A -- A material with an installed conductance of 0.48 [2.72 W/(m\*K)] or the equivalent thermal resistance of 2.1 [0.367 (m\*K)/W].

Example of materials capable of meeting the above requirements:

- 1-inch (25 mm), 0.60 lb./cu.ft. (9.6 kg/m<sup>3</sup>) mineral fiber, rock, slag or glass blankets.
- ½-inch (13 mm), 1.5 to 3 lb./cu.ft. (24 to 48 kg/m<sup>3</sup>) mineral fiber blanket duct liner.
- ½-inch (13 mm), 3 to 10 lb./cu.ft. (48 to 160 kg/m<sup>3</sup>) mineral fiber board.

B -- A material with an installed conductance of 0.24 [1.36 W/(m\*K)] or the equivalent thermal resistance of 4.2 [0.735 (m\*K)/W].

Example of materials capable of meeting the above requirements:

- 2-inch (51 mm), 0.60 lb./cu.ft. (9.6 kg/m<sup>3</sup>) mineral fiber blankets.
- 1-inch (25 mm), 1.5 to 3 lb./cu.ft. (24 to 48 kg/m<sup>3</sup>) mineral fiber blanket duct liner.
- 1-inch (25 mm), 3 to 10 lb./cu.ft. (48 to 160 kg/m<sup>3</sup>) mineral fiber board.

C -- A material with an installed conductance of 0.16 [0.9 W/(m\*K)] or the equivalent thermal resistance of 6.3 [1.1 (m\*K)/W].

Example of materials capable of meeting the above requirements:

- 3-inch (76 mm), 0.60 lb./cu.ft. (9.6 kg/m<sup>3</sup>) mineral fiber blankets.
- 1 ½-inch (38 mm), 1.5 to 3 lb./cu.ft. (24 to 48 kg/m<sup>3</sup>) mineral fiber blanket duct liner.
- 1 ½-inch (38 mm), 3 to 10 lb./cu.ft. (48 to 160 kg/m<sup>3</sup>) mineral fiber board.

V --Vapor Retarders: Material with a perm rating not exceeding 0.05 perm [29 ng/Pa\*s\*m<sup>2</sup>]. All joints to be sealed.

W - Approved weatherproof barrier.

<sup>4</sup> The example of materials listed under each type is not meant to limit other available thickness and density combinations with the equivalent installed conductance or resistance based on the insulation only.

(Reason: To reduce heating and/or cooling energy duct losses.)

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**\*\*Section M2005.2; change to read as follows:**

**M2005.2 Prohibited locations.** Fuel-fired water heaters shall not be installed in a room used as a storage closet. Water heaters located in a bedroom or bathroom shall be installed in a sealed enclosure so that combustion air will not be taken from the living space. Access to such enclosure may be from the bedroom or bathroom when through a solid door, weather-stripped in accordance with the exterior door air leakage requirements of the *International Energy Conservation Code* and equipped with an approved self-closing device. Direct-vent water heaters are not required to be installed within an enclosure.

(Reason: Corresponds with the provisions of IFGC Section 303, exception #5.)

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**\*\* Section G2403; amend definition of "Unvented Room Heater" to add a sentence to read as follows:**

For the purpose of installation, this definition shall also include "Unvented Decorative Appliances."

(Reason: Clarifies installation for these devices.)

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**\*\*Section G2407.15, item #1; change the exception to read as follows:**

**Exception:** Unobstructed stud and joist spaces within dwelling units shall not be prohibited from conveying combustion air, provided that not more than one required fireblock is removed.

(Reason: Match wording in unamended IFGC Section 304.15 and to insure that shared walls between dwelling units are not used as plenums.)

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**\*\*Section G2408.3; delete.**

(Reason: This provision does not reflect standard practice in this area.)

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**\*\*Section G2411.5; 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.)

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**\*\*Section G2412.3; add an exception to read as follows:**

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

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

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**\*\*Section G2414.6; change to read as follows:**

**G2424.6 (404.6) Piping in solid floors.** Piping in solid floors shall be laid in channels in the floor and covered in a manner what 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 G2414.11 (404.11) a casing of schedule 40 steel, wrought iron, PVC or ABS pipe with tightly sealed ends and joints. ~~Both ends of such casing shall extend not less than 2 inches (51 mm) beyond the point where the pipe emerges from the floor.~~

(Reason: Referencing Section G2414.11 provides CSST piping with outside venting.)

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**\*\*Section G2414.9; change to read as follows:**

**G2414.9 (404.9) Minimum burial depth.** Underground piping systems shall be installed a minimum depth of ~~12~~ 18 inches (305 ~~458~~ mm) below grade, ~~except as provided for in Section G2414.9.1.~~

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

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**\*\*Section G2414.9.1; delete.**

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

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**\*\*Section G2416.4; add a sentence to read as follows:**

The equipment used shall be of an appropriate scale such that pressure loss can be easily determined.

(Reason: To stress need for appropriate test equipment.)

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**\*\*Section G2416.4.1; change to read as follows:**

**G2416.4.1 (406.4.1) 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 3 10 psig (20 68.9 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 welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa), the test pressure shall not be less than sixty (60) pounds per square inch (413.4 kPa).

**\*\*Section G2416.4.2; change to read as follows:**

**G2416.4.2 (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 15 (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 for less than thirty (30) minutes.

(Reason: In this region, specific test methods were defined in amendments to the 1996 International Mechanical Code. Amendments to Sections G2416.4.1 and G2416.4.2 retain those standards, which are now standard practice)

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**\*\*Add Section G2419.1.4 to read as follows:**

**G2419.1.4 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 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.)

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**\*\*Section G2420.1; 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 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.

(Reason: To require adequate access to regulators.)

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**\*\*Section G2437.5; 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.)

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**\*\*Section G2437.5.1; change to read as follows:**

**G2437.5.1 (613.6.1) Maximum length.** The maximum length of a clothes dryer exhaust duct shall not exceed 25 feet (7620 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 1/2 feet (762 mm) for each 45-degree (0.79 rad) bend and 5 feet (1524 mm) for each 90-degree (1.6 rad) bend that occur after the first two bends, measuring in the direction of airflow.

*{Exception is unchanged}*

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

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**\*\*Section G2443.2; change to read as follows:**

**G2443.2 (620.2) 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 *International Fuel Gas Code* Section 108.7.

(Reason: Gives code official discretion.)

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**\*\*Section G2446.1.1; change to read as follows:**

**G2446.1.1 (623.1.1) Installation requirements.** The requirements for water heaters relative to access, sizing, relief valves, drain pans and scald protection shall be in accordance with this code.

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

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**\*\*Section P2503.5.1, item 1; add a second paragraph 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.

(Reason: To clarify that a water test is required for a shower receptor.)

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**\*\*Section P2503.7.2; change to read as follows:**

**P2503.7.2 Testing.** Reduced pressure principle . . . *{bulk of section unchanged}* . . . at the time of installation, immediately after repairs or relocation and at regular intervals as required by applicable state or local provisions ~~least annually~~.

(Reason: Recognize TNRCC or other local testing procedures that must be adhered to.)

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**\*\*Add Section P2603.6.1 to read as follows:**

**P2603.6.1 Sewer depth.** Building sewers shall be a minimum of 12 inches (304 mm) below grade.

(Reason: Provides sewer depth that is common in this region.)

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**\*\*Section P2708.1; change to read as follows:**

**P2708.1 General.** Shower compartments shall . . . *{bulk of section unchanged}* . . . shall be constructed as per Section R307.2 ~~R702.4~~. Such walls shall . . . *{remainder of section and exception unchanged}*.

(Reason: Reference the correct section.)

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**\*\*Section P2708.1; add a sentence to read as follows:**

Thresholds shall be of sufficient width to accommodate a minimum twenty-two (22) inch (559 mm) door.

**\*\*Section P2709.1; add an exception to read as follows:**

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

(Reason: To provide more specific requirements.)

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**\*\*Section P2710.1; change to read as follows:**

**P2710.1 Finished.** Shower walls shall be finished in accordance with Section R307.2 ~~R702.4~~.

(Reason: Reference the correct section.)

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**\*\*Section P2803.6.1; change to read as follows:**

**P2803.6.1 Requirements for discharge.** The outlet of a pressure relief valve, temperature relief valve or combination thereof, shall not be directly connected to the drainage system. The discharge from the relief valve shall be piped full size separately to the outside of the building or to an indirect waste receptor located inside the building.

In areas subject to freezing, the relief valve shall discharge through an air gap into an indirect waste receptor located within a heated space, or by other approved means. The discharge pipe shall not discharge into the pan required in Section P2801.5.

The discharge shall be installed in a manner that does not cause personal injury or property damage and that is readily observable by the building occupants. The discharge from a relief valve shall be trapped. The diameter of the discharge piping shall not be less than the diameter of the relief valve outlet.

The discharge pipe shall be installed so as to drain by gravity flow and shall terminate atmospherically ~~not more than 6 inches (152 mm) above the floor.~~ When discharging outside the building, the point of discharge shall be with the end of the pipe not more than two (2) feet (610 mm) nor less than six (6) inches (152 mm) above the ground or the floor level of the area receiving the discharge and pointing downward.

The end of the discharge pipe shall not be threaded.

(Reason: To provide a higher degree of safety.)

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**\*\*Table P2904.4.1; delete "Polybutylene (PB) plastic pipe and tubing".**

**\*\*Sections P2904.5, 2904.5.1 and 2904.12; delete reference to "PB" plastic pipe.**

(Reason: Polybutylene pipe is not allowed for use in this region.)

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**\*\*Section P3005.2.6; changed to read as follows:**

**P3005.2.6 ~~Upper terminal~~ ~~Base of stacks.~~** Each horizontal drain shall be provided with a cleanout at its upper terminal. ~~Accessible cleanouts shall be provided near the base of each vertical waste or soil stack. Alternatively, such cleanouts may be installed outside the building within 3 feet (914 mm) of the building wall.~~

**Exception:** Cleanouts may be omitted on a horizontal drain less than five (5) feet (1524 mm) in length unless such line is serving sinks or urinals.

(Reason: To eliminate the requirement for excessive cleanouts.)

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**\*\*Section P3103.1; changed to read as follows:**

**P3103.1 Roof extension.** All open vent pipes which extend through a roof shall be terminated at least six (6) inches (152 mm) above the roof or [number] inches above the anticipated snow accumulation, except that . . . {remainder of section unchanged}.

(Reason: To provide regional guideline on standard installation method for this area.)

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**\*\*Sections P3105.2 and P3105.3 and Figure P3105.3; delete**

(Reason: S-trap issues.)

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**\*\*Section P3111.1; change to read as follows:**

**P3111.1 Type of fixture.** A combination waste and vent system shall not serve fixtures other than floor drains, standpipes, ~~sinks and lavatories~~ indirect waste receptors. Combination drain and vent systems shall not receive the discharge of a food waste grinder.

(Reason: To prevent trap siphoning of sinks and lavatories.)

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**\*\*Section P3111.2; change to read as follows:**

**P3111.2 Installation.** The only vertical pipe of a combination drain and vent system shall be the connection between the fixture drain of a ~~sink, lavatory or~~ standpipe, and the horizontal combination waste and vent pipe. The maximum vertical distance shall be ~~36 inches~~ 8 feet (944 2438 mm).

(Reason: To prevent trap siphoning of sinks and lavatories.)

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**\*\*Section E3301.1; add a sentence to read as follows:**

All references to NFPA 70 shall mean the Electrical Code as adopted.

(Reason: For clarification.)

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**\*\*Section E3306.3; change to read as follows:**

**E3306.3. Minimum size of conductors.** The minimum size of conductors for ~~feeders and~~ branch circuits shall . . . *{remainder of section unchanged}* . . .

(Reason: Feeders are covered in E3604.2.)

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**\*\*Section E3306.6; change to read as follows:**

**E3306.6 Conductors in parallel.** Circuit conductors that are electrically joined at each end to form a single conductor shall be limited to sizes No. ~~40~~ 1/0 and larger. *{remainder of section unchanged.}*

(Reason: Editorial.)

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**\*\*Section E3802.8; change to read as follows:**

**E3802.8 Exempt receptacles.** Receptacles installed under exceptions to Sections E3802.2 and ~~E3802.4~~ E3802.5 shall not be considered as meeting the requirements of Section ~~E3801.10~~ E3801.9.

(Reason: Editorial.)

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END