

**Recommended Amendments to the  
2006 International Residential Code**  
North Central Texas Council of Governments region

The following sections, paragraphs, and sentences of the *2006 International Residential Code* are hereby amended as follows: Standard type is text from the IRC. Underlined type is text inserted. ~~Lined through type is deleted text from IRC.~~ A double asterisk at the beginning of a section identifies an amendment carried over from the 2003 edition of the code and a triple asterisk identifies a new or revised amendment with the 2006 code.

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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 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 R110.5); delete.**

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

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**\*\*Section R112.2.1 & R112.2.2 delete.**

(Reason: Floodplain provisions are addressed locally.)

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**\*\*\*Section R202; add the following definition:**

**GLAZING AREA.** Total area of the glazed fenestration measured using the rough opening and including sash, curbing or other framing elements that enclose conditioned space. Glazing area includes the area of glazed fenestration assemblies in walls bounding conditioned basements. For doors where the daylight opening area is less than 50 percent of the door area, the glazing area is the daylight opening area. For all other doors, the glazing area is the rough opening area for the door including the door and the frame.

(Reason: Since the window to wall area ratios have been added to the prescriptive tables, it is necessary to define **glazing area**.)

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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.)

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

GROUND SNOW LOAD	WIND SPEED <sup>d</sup> (mph)	SEISMIC DESIGN CATEGORY <sup>f</sup>
5 lb/ft <sup>2</sup>	90 (3-sec-gust)/75 fastest mile	A

SUBJECT TO DAMAGE FROM		
Weathering <sup>a</sup>	Frost line depth <sup>b</sup>	Termite <sup>c</sup>
moderate	6"	very heavy

WINTER DESIGN TEMP <sup>e</sup>	ICE SHIELD UNDER-LAYMENT REQUIRED <sup>h</sup>	FLOOD HAZARDS <sup>g</sup>	AIR FREEZING INDEX <sup>i</sup>	MEAN ANNUAL TEMP <sup>j</sup>
22°F	No	local code	69°F	64.9°F

No change to footnotes

(Reason: To promote regional uniformity.)

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

**Exceptions:**

1. Detached tool sheds and storage sheds, playhouses and similar structures exempted from permits 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. Detached garages accessory to a dwelling located within 2 feet (610 mm) of a lot line are permitted to have roof eave projections not exceeding 4 inches (102 mm).
3. Foundation vents installed in compliance with this code are permitted.

4. 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.)

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**\*\*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 (24 L/s) for intermittent ventilation or 20 cfm (10 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 R303.8; change to read as follows:**

**R303.8 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. *{Remainder of section unchanged}*

(Reason: Specifies requirement for this area.)

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**\*\*Section R311.2.2; change to read as follows:**

**R311.2.2 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 R317.1; add a third exception to read as follows:**

**Exceptions:**

1. *{existing exception unchanged}*
2. *{existing exception unchanged}*
3. 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 R324.1; change to read as follows:**

**R324.1 General.** Buildings and structures, when permitted to be constructed in whole or in part in flood hazard areas (including A or V Zones) as established in Table R301.2(1) shall be designed and constructed as required in accordance with 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 2.67 square feet (0.248 m<sup>2</sup>) of wall area, the following dimensions shall be adhered to:

1. When ties are placed on studs 16 in (407 mm) o.c., they shall be spaced no further apart than 24 in (737 mm) vertically starting approximately 12 in (381 mm) from the foundation.
2. When ties are placed on studs 24 in (610 mm) o.c., they shall be spaced no further apart than 16 in (483 mm) vertically starting approximately 8 in (254 mm) from the foundation.

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

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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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**\*\*\*Amend Section N1101.2.1 to read as follows:**

**N1101.2.1 Warm humid counties.** Warm humid counties are listed in Table N1101.2.1 and Table N1101.2.2.

(Reason: This amendment is added to satisfy the "not less restrictive" requirement when adopting subsequent editions of energy codes in accordance with Texas SB 5, 77<sup>th</sup> Legislature.)

\*\*\*Replace Section N1101.7 to read as follows:

**N1101.7 Alternative compliance.** A building certified by a national, state, or local accredited energy efficiency program and determined by the Energy Systems Laboratory to be in compliance with the energy efficiency requirements of this section may, at the option of the Code Official, be considered in compliance. The United States Environmental Protection Agency's Energy Star Program certification of energy code equivalency shall be considered in compliance.

(Reason: This amendment allows alternative compliance in accordance with Texas HB 1365, 78<sup>th</sup> Legislature.)

\*\*\*Replace Figure N1101.2 to read as follows:

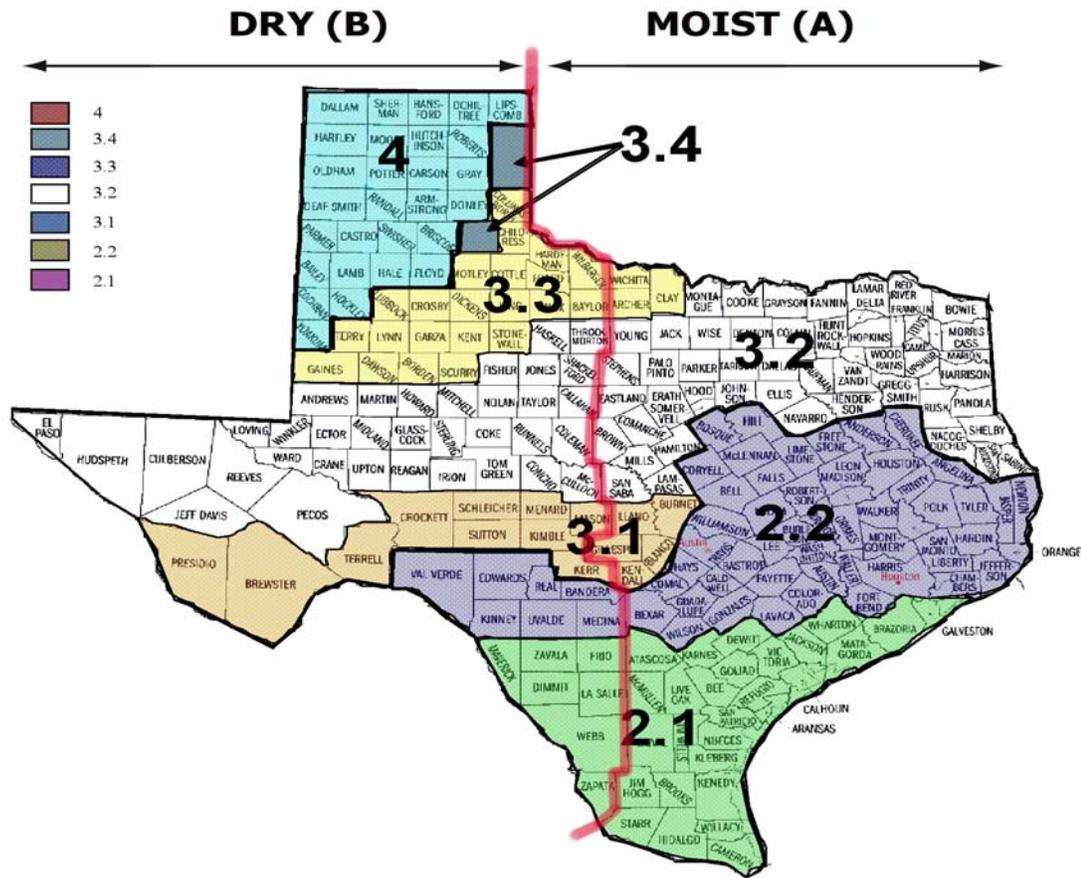


Figure N1101.2 TEXAS CLIMATE ZONES

(Reason: This amendment is added to satisfy the “not less restrictive” requirement when adopting subsequent editions of energy codes in accordance with Texas SB 5, 77<sup>th</sup> Legislature.)

\*\*\*Replace Table N1101.2.1 to read as follows:

**TABLE N1101.2.1  
CLIMATE ZONES AND SUB CLIMATE ZONES FOR TEXAS**

<b>Zone 2</b>							
ANDERSON	2.2	DE WITT	2.1	JIM HOGG	2.1	ORANGE	2.2
ANGELINA	2.2	DIMITT	2.1	JIM WELLS	2.1	POLK	2.2
ARANSAS	2.1	DUVAL	2.1	KARNES	2.1	REAL	2.2
ATASCOSA	2.1	EDWARDS	2.2	KENEDY	2.1	REFUGIO	2.1
AUSTIN	2.2	FALLS	2.2	KINNEY	2.2	ROBERTSON	2.2
BANDERA	2.2	FAYETTE	2.2	KLEBERG	2.1	SAN JACINTO	2.2
BASTROP	2.2	FORT BEND	2.2	LA SALLE	2.1	SAN PATRICIO	2.1
BEE	2.1	FREESTONE	2.2	LAVACA	2.2	STARR	2.1
BELL	2.2	FRIO	2.1	LEE	2.2	TRAVIS	2.2
BEXAR	2.2	GALVESTON	2.1	LEON	2.2	TRINITY	2.2
BOSQUE	2.2	GOLIAD	2.1	LIBERTY	2.2	TYLER	2.2
BRAZORIA	2.1	GONZALES	2.2	LIMESTONE	2.2	UVALDE	2.2
BRAZOS	2.2	GRIMES	2.2	LIVE OAK	2.1	VAL VERDE	2.2
BROOKS	2.1	GUADALUPE	2.2	MADISON	2.2	VICTORIA	2.1
BURLESON	2.2	HARDIN	2.2	MATAGORDA	2.1	WALKER	2.2
CALDWELL	2.2	HARRIS	2.2	MAVERICK	2.1	WALLER	2.2
CALHOUN	2.1	HAYS	2.2	MCLENNAN	2.2	WASHINGTON	2.2
CAMERON	2.1	HIDALGO	2.1	MCMULLEN	2.1	WEBB	2.1
CHAMBERS	2.2	HILL	2.2	MEDINA	2.2	WHARTON	2.1
CHEROKEE	2.2	HOUSTON	2.2	MILAM	2.2	WILLACY	2.1
COLORADO	2.2	JACKSON	2.1	MONTGOMERY	2.2	WILLIAMSON	2.2
COMAL	2.2	JASPER	2.2	NEWTON	2.2	WILSON	2.2
CORYELL	2.2	JEFFERSON	2.2	NUECES	2.1	ZAPATA	2.1
<b>Zone 3</b>							
ANDREWS	3.2	EL PASO	3.2	KERR	3.1	ROCKWALL	3.2
ARCHER	3.3	ELLIS	3.2	KIMBLE	3.1	RUNNELS	3.2
BAYLOR	3.3	ERATH	3.2	KING	3.3	RUSK	3.2
BLANCO	3.1	FANNIN	3.2	KNOX	3.3	SABINE	3.2
BORDEN	3.3	FISHER	3.2	LAMAR	3.2	SAN AUGUSTINE	3.2
BOWIE	3.2	FOARD	3.3	LAMPASAS	3.2	SAN SABA	3.2
BREWSTER	3.1	FRANKLIN	3.2	LLANO	3.1	SCHLEICHER	3.1
BROWN	3.2	GAINES	3.3	LOVING	3.2	SCURRY	3.3
BURNET	3.1	GARZA	3.3	LUBBOCK	3.3	SHACKELFORD	3.2
CALLAHAN	3.2	GILLESPIE	3.1	LYNN	3.3	SHELBY	3.2
CAMP	3.2	GLASSCOCK	3.2	MARION	3.2	SMITH	3.2
CASS	3.2	GRAYSON	3.2	MARTIN	3.2	SOMERVELL	3.2
CHILDRESS	3.3	GREGG	3.2	MASON	3.1	STEPHENS	3.2
CLAY	3.3	HALL	3.4	MCCULLOCH	3.2	STERLING	3.2
COKE	3.2	HAMILTON	3.2	MENARD	3.1	STONEWALL	3.3
COLEMAN	3.2	HARDEMAN	3.3	MIDLAND	3.2	SUTTON	3.1
COLLIN	3.2	HARRISON	3.2	MILLS	3.2	TARRANT	3.2
COLLINGSWORTH	3.3	HASKELL	3.2	MITCHELL	3.2	TAYLOR	3.2
COMANCHE	3.2	HEMPHILL	3.4	MONTAGUE	3.2	TERRELL	3.1
CONCHO	3.2	HENDERSON	3.2	MORRIS	3.2	TERRY	3.3
COOKE	3.2	HOOD	3.2	MOTLEY	3.3	THROCKMORTON	3.2
COTTLE	3.3	HOPKINS	3.2	NACOGDOCHES	3.2	TITUS	3.2
CRANE	3.2	HOWARD	3.2	NAVARRO	3.2	TOM GREEN	3.2
CROCKETT	3.1	HUDSPETH	3.2	NOLAN	3.2	UPSHUR	3.2
CROSBY	3.3	HUNT	3.2	PALO PINTO	3.2	UPTON	3.2

CULBERSON	3.2	IRION	3.2	PANOLA	3.2	VAN ZANDT	3.2
DALLAS	3.2	JACK	3.2	PARKER	3.2	WARD	3.2
DAWSON	3.3	JEFF DAVIS	3.2	PECOS	3.2	WHEELER	3.4
DELTA	3.2	JOHNSON	3.2	PRESIDIO	3.1	WICHITA	3.3
DENTON	3.2	JONES	3.2	RAINS	3.2	WILBARGER	3.3
DICKENS	3.3	KAUFMAN	3.2	REAGAN	3.2	WINKLER	3.2
EASTLAND	3.2	KENDALL	3.1	RED RIVER	3.2	WISE	3.2
ECTOR	3.2	KENT	3.3	REEVES	3.2	WOOD	3.2
						YOUNG	3.2

**Zone 4**

ARMSTRONG	DEAF SMITH	HOCKLEY	PARMER
BAILEY	DONLEY	HUTCHINSON	POTTER
BRISCOE	FLOYD	LAMB	RANDALL
CARSON	GRAY	LIPSCOMB	ROBERTS
CASTRO	HALE	MOORE	SHERMAN
COCHRAN	HANSFORD	OCHILTREE	SWISHER
DALLAM	HARTLEY	OLDHAM	YOAKUM

*(Reason: This amendment is added to satisfy the “not less restrictive” requirement when adopting subsequent editions of energy codes in accordance with Texas SB 5, 77<sup>th</sup> Legislature.)*

**\*\*\*Add Table N1101.2.2 to read as follows:**

**TABLE N1101.2.2  
WARM HUMID COUNTIES FOR TEXAS**

ANDERSON	2.2	DUVAL	2.1	KAUFMAN	3.2	RED RIVER	3.2
ANGELINA	2.2	EDWARDS	2.2	KENDALL	3.1	REAL	2.2
ARANSAS	2.1	ELLIS	3.2	KENEDY	2.1	REFUGIO	2.1
ATASCOSA	2.1	ERATH	3.2	KINNEY	2.2	ROBERTSON	2.2
AUSTIN	2.2	FALLS	2.2	KLEBERG	2.1	ROCKWALL	3.2
BANDERA	2.2	FAYETTE	2.2	LA SALLE	2.1	RUSK	3.2
BASTROP	2.2	FORT BEND	2.2	LAMAR	3.2	SABINE	3.2
BEE	2.1	FRANKLIN	3.2	LAMPASAS	3.2	SAN AUGUSTINE	3.2
BELL	2.2	FREESTONE	2.2	LAVACA	2.2	SAN JACINTO	2.2
BEXAR	2.2	FRIO	2.1	LEE	2.2	SAN PATRICIO	2.1
BLANCO	3.1	GALVESTON	2.1	LEON	2.2	SAN SABA	3.2
BOSQUE	2.2	GILLESPIE	3.1	LLANO	3.1	SHELBY	3.2
BOWIE	3.2	GOLIAD	2.1	LIBERTY	2.2	SMITH	3.2
BRAZORIA	2.1	GONZALES	2.2	LIMESTONE	2.2	STARR	2.1
BROWN	3.2	GREGG	3.2	LIVE OAK	2.1	SOMMERVELL	3.2
BRAZOS	2.2	GRIMES	2.2	MADISON	2.2	TARRANT	3.2
BROOKS	2.1	GUADALUPE	2.2	MARION	3.2	TITUS	3.2
BURLESON	2.2	HAMILTON	3.2	MATAGORDA	2.1	TRAVIS	2.2
BURNET	3.1	HARDIN	2.2	MAVERICK	2.1	TRINITY	2.2
CALDWELL	2.2	HARRIS	2.2	MCLENNAN	2.2	TYLER	2.2
CALHOUN	2.1	HARRISON	3.2	MCMULLEN	2.1	UPSHUR	3.2
CAMERON	2.1	HAYS	2.2	MEDINA	2.2	UVALDE	2.2
CHAMBERS	2.2	HENDERSON	3.2	MILAM	2.2	VAL VERDE	2.2
CAMP	3.2	HIDALGO	2.1	MILLS	3.2	VAN ZANDT	3.2
CASS	3.2	HOOD	3.2	MONTGOMERY	2.2	VICTORIA	2.1
CHEROKEE	2.2	HOPKINS	3.2	MORRIS	3.2	WALKER	2.2
COLLIN	3.2	HILL	2.2	NACOGDOCHES	3.2	WALLER	2.2
COLORADO	2.2	HOUSTON	2.2	NAVARRO	3.2	WASHINGTON	2.2
COMAL	2.2	HUNT	3.2	NEWTON	2.2	WEBB	2.1

COMANCHE	3.2	JACKSON	2.1	NUECES	2.1	WHARTON	2.1
CORYELL	2.2	JASPER	2.2	ORANGE	2.2	WILLACY	2.1
DALLAS	3.2	JEFFERSON	2.2	PALO PINTO	3.2	WILLIAMSON	2.2
DELTA	3.2	JIM HOGG	2.1	PANOLA	3.2	WILSON	2.2
DENTON	3.2	JIM WELLS	2.1	PARKER	3.2	WOOD	3.2
DE WITT	2.1	JOHNSON	3.2	POLK	2.2	ZAPATA	2.1
DIMMIT	2.1	KARNES	2.1	RAINS	3.2	ZAVALA	2.1

*(Reason: This amendment is added to satisfy the “not less restrictive” requirement when adopting subsequent editions of energy codes in accordance with Texas SB 5, 77<sup>th</sup> Legislature.)*

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**\*\*\* Amend Section N1102.1 Insulation and fenestration criteria. to read as follows:**

**1102.1 Insulation and fenestration criteria.** The building thermal envelope shall meet the requirements of Table N1102.1 based on the climate zone specified in Table N1101.2.

When compliance using Table 1102.1 is demonstrated with a ceiling *R*-value of R30 or less, no more than 33% of the total projected ceiling area may be of cathedral type construction (ceiling joist/roof rafter assembly) and the required insulation *R*-value may be reduced to a minimum of R22 insulation when the remaining ceiling area insulation is increased to R38.

*(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.)*

\*\*\*Replace Table N1102.1 to read as follows:

**TABLE N1102.1  
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT (TEXAS)<sup>a</sup>**

CLIMATE - SUB CLIMATE ZONE	MAX GLAZED AREA TO WALL AREA RATIO	MAX GLAZED FENESTRATION U-FACTOR	MAX SKYLIGHT U-FACTOR <sup>b</sup>	MAX GLAZED FENESTRATION SHGC	MIN CEILING R-VALUE	MIN WOOD FRAME WALL R-VALUE <sup>d</sup>	MASS WALL R-VALUE	MIN FLOOR R-VALUE	MIN BASEMENT WALL R-VALUE	MIN SLAB R-VALUE & DEPTH <sup>e</sup>	MIN CRAWL SPACE WALL R-VALUE
2.1	15	0.75	0.75	0.358	19	13	6	19	0	0	5
	20	0.70	0.75	0.38	30	13	6	19	0	0	5
	25	0.65	0.75	0.35	30	13	6	19	0	0	5
	30	0.54	0.75	0.35	38	13	6	19	0	0	5
2.2	15	0.65	0.75	0.38	30	13	6	19	5	0	6
	20	0.65	0.75	0.38	38	13	6	19	6	0	6
	25	0.54	0.75	0.35	38	13	6	19	8	0	10
	30	0.46	0.75	0.35	38	16, 13 + 3.7 <sup>e</sup>	6	19	8	0	10
3.1	15	0.65	0.65	0.40	30	13	6	19	5	0	6
	20	0.55	0.65	0.40	38	13	6	19	5	0	6
	25	0.54	0.65	0.35	38	13	6	19	8	0	10
	30	0.46	0.65	0.35	38	16, 13 + 3.7 <sup>e</sup>	7	19	8	0	10
3.2	15	0.60	0.65	0.40	30	13	6	19	6	0	7
	20	0.54	0.65	0.40	38	13	6	19	6	0	7
	25	0.51	0.65	0.40	38	16, 13 + 3.7 <sup>e</sup>	7	19	6	0	7
	30	0.46	0.65	0.38	38	16, 13 + 3.7 <sup>e</sup>	7	19	6	0	7
3.3	15	0.51	0.65	0.40	30	13	6	19	7	0	8
	20	0.45	0.65	0.40	38	13	6	19	7	0	9
	25	0.40	0.65	0.40	38	16, 13 + 3.7 <sup>e</sup>	7	19	7	0	9
	30	0.40	0.65	0.40	38	19, 13 + 8.1 <sup>e</sup>	9	19	7	0	9
3.4	15	0.45	0.60	NR	38	13	6	19	8	5, 2 ft	11
	20	0.37	0.60	NR	38	13	6	19	8	6, 2 ft	13
	25	0.37	0.60	NR	38	19, 13 + 8.1 <sup>e</sup>	9	19	8	6, 2 ft	13
	30	0.37	0.60	NR	38	19, 13 + 8.1 <sup>e</sup>	9	30	8	6, 2 ft	13
4	15	0.45	0.60	NR	38	13	8	19	8	5, 2 ft	11
	20	0.37	0.60	NR	38	13	8	19	9	6, 2 ft	13
	25	0.37	0.60	NR	38	19, 13 + 8.1 <sup>e</sup>	10	19	9	6, 2 ft	13
	30	0.37	0.60	NR	38	19, 13 + 8.1 <sup>e</sup>	10	30	9	6, 2 ft	13

For SI: 1 foot = 304.8 mm.

- R-values are minimums. U-factors and SHGC are maximums. R-19 shall be permitted to be compressed into a 2 x 6 cavity.
- The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration.
- R-5 shall be added to the required slab edge R-values for heated slabs.
- The total R-value may be achieved with a combination of cavity insulation and insulating sheathing that covers 100% of the exterior wall.
- The wall insulation may be the sum of the two values where the first value is the cavity insulation and the second value is insulating sheathing. The combination of cavity insulation plus insulating sheathing may be used where structural sheathing covers not more than 25% of the exterior wall area and insulating sheathing is not required where structural sheathing is used. If structural sheathing covers more than 25% of exterior wall area then the wall insulation requirement may only be satisfied with the single insulation value.

(Reason: This amendment is added to satisfy the “not less restrictive” requirement when adopting subsequent editions of energy codes in accordance with Texas SB 5, 77<sup>th</sup> Legislature.)

\*\*\*Replace Table N1102.1.2 to read as follows:

**TABLE N1102.1.2  
EQUIVALENT U-FACTORS<sup>a</sup>**

CLIMATE - SUB CLIMATE ZONE	MAX GLAZED AREA TO WALL AREA RATIO	MAX GLAZED FENESTRATION U-FACTOR	MAX SKYLIGHT U-FACTOR	MAX CEILING U-FACTOR	MAX WOOD FRAME WALL U-FACTOR	MAX MASS WALL U-FACTOR	MAX FLOOR U-FACTOR	MAX BASEMENT WALL U-FACTOR	MAX CRAWL SPACE WALL U-FACTOR
2.1	15	0.75	0.75	0.039	0.082	0.124	0.047	0.360	0.136
	20	0.70	0.75	0.034	0.082	0.124	0.047	0.360	0.136
	25	0.65	0.75	0.034	0.082	0.124	0.047	0.360	0.136
	30	0.54	0.75	0.030	0.082	0.124	0.047	0.360	0.136
2.2	15	0.65	0.75	0.034	0.082	0.124	0.047	0.210	0.100
	20	0.65	0.75	0.030	0.082	0.124	0.047	0.210	0.100
	25	0.54	0.75	0.030	0.082	0.124	0.047	0.119	0.065
	30	0.46	0.75	0.030	0.071	0.124	0.047	0.119	0.065
3.1	15	0.65	0.65	0.034	0.082	0.124	0.047	0.210	0.100
	20	0.55	0.65	0.030	0.082	0.124	0.047	0.210	0.100
	25	0.54	0.65	0.030	0.082	0.124	0.047	0.119	0.065
	30	0.46	0.65	0.030	0.071	0.112	0.047	0.119	0.065
3.2	15	0.60	0.65	0.034	0.082	0.124	0.047	0.179	0.075
	20	0.54	0.65	0.030	0.082	0.124	0.047	0.179	0.075
	25	0.51	0.65	0.030	0.071	0.112	0.047	0.179	0.075
	30	0.46	0.65	0.030	0.071	0.112	0.047	0.179	0.075
3.3	15	0.51	0.65	0.034	0.082	0.124	0.047	0.149	0.061
	20	0.45	0.65	0.030	0.082	0.124	0.047	0.149	0.058
	25	0.40	0.65	0.030	0.075	0.112	0.047	0.149	0.058
	30	0.40	0.65	0.030	0.061	0.094	0.047	0.149	0.058
3.4	15	0.45	0.60	0.030	0.082	0.124	0.047	0.119	0.083
	20	0.37	0.60	0.030	0.082	0.124	0.047	0.119	0.152
	25	0.37	0.60	0.030	0.061	0.094	0.047	0.119	0.152
	30	0.37	0.60	0.030	0.061	0.094	0.033	0.119	0.152
4	15	0.45	0.60	0.030	0.082	0.102	0.047	0.119	0.083
	20	0.37	0.60	0.030	0.082	0.102	0.047	0.089	0.152
	25	0.37	0.60	0.030	0.061	0.087	0.047	0.089	0.152
	30	0.37	0.60	0.030	0.061	0.087	0.033	0.089	0.152

a. Nonfenestration U-factors shall be obtained from measurement, calculation or an approved source.

(Reason: This amendment is added to satisfy the “not less restrictive” requirement when adopting subsequent editions of energy codes in accordance with Texas SB 5, 77<sup>th</sup> Legislature.)

\*\*\*Amend Section N1102.3.2 Glazed fenestration SHGC. to read as follows:

**N1102.3.2 Glazed fenestration SHGC.** An area-weighted average of fenestration products more than 50 percent glazed shall be permitted to satisfy the solar heat gain coefficient (SHGC) requirements. In sub climate zones 2.1, 2.2, 3.1, 3.2 and 3.3 the maximum area-weighted average and the maximum SHGC shall not exceed 0.40.

(Reason: This amendment is added to satisfy the “not less restrictive” requirement when adopting subsequent editions of energy codes in accordance with Texas SB 5, 77<sup>th</sup> Legislature.)

---

**\*\*\*Add Section N1102.2.11. Insulation installed in walls. to read as follow:**

**N1102.2.11. Insulation installed in walls.** Insulation batts installed in walls shall be totally surrounded by an enclosure on all sides consisting of framing lumber, gypsum, sheathing, wood structural panel sheathing or other equivalent material approved by the building official.

(Reason: This will increase the performance of the batt insulation by eliminating the potential for drafts and insure that the batt insulation stays in place)

---

**\*\*\*Amend Section N1102.3.3 Glazed fenestration exemption. to read as follows:**

**N1102.3.3 Glazed fenestration exemption.** Up to ~~15 square feet (1.4 m<sup>2</sup>)~~ 1 percent of glazed fenestration per dwelling unit shall be permitted to be exempt from *U*-factor and SHGC requirements in Section 402.1.

(Reason: This amendment is added to satisfy the “not less restrictive” requirement when adopting subsequent editions of energy codes in accordance with Texas SB 5, 77<sup>th</sup> Legislature.)

---

**\*\*\*Amend Section N1102.3.5 Thermally isolated sunroom *U*-factor. to read as follows:**

**N1102.3.5 Thermally isolated sunroom *U*-factor.** ~~For zones 4 through 8, the maximum fenestration *U*-factor shall be 0.50 and the maximum skylight *U*-factor shall be 0.75.~~ New windows and doors separating the sunroom from conditioned space shall meet the building thermal envelope requirements.

(Reason: This amendment is added to satisfy the “not less restrictive” requirement when adopting subsequent editions of energy codes in accordance with Texas SB 5, 77<sup>th</sup> Legislature.)

---

**\*\*\*Amend Section N1102.3.6 Replacement fenestration. to read as follows:**

**N1102.3.6 Replacement fenestration.** Where some or all of an existing fenestration unit is replaced with a new fenestration product, including sash and glazing, the replacement fenestration unit shall meet the applicable requirements for *U*-factor ~~and solar heat gain coefficient (SHGC)~~ in Table N1102.4 N1102.3.7.

**Exceptions:**

1. Replacement skylights shall have a maximum *U*-factor for 0.60 when installed in all sub climate zones except for 2.1.
2. For buildings constructed in conformance with an energy code as required by State of Texas Senate Bill Number 5, 77<sup>th</sup> Legislature, replacement fenestration units may comply with the original construction documents or applicable *U*-factor in N1102.1.

(Reason: This amendment is added to satisfy the “not less restrictive” requirement when adopting subsequent editions of energy codes in accordance with Texas SB 5, 77<sup>th</sup> Legislature and to provide for reasonable compliance for structures built after the adoption of codes in accordance with SB 5, 77<sup>th</sup> Legislature.)

---

**\*\*\*Add Section N1102.3.7 Prescriptive path for additions. to read as follows:**

**N1102.3.7 Prescriptive path for additions.** As an alternative to demonstrating compliance, additions with a conditioned floor area less than 500 square feet (46.5 m<sup>2</sup>) to existing single-family residential buildings and structures shall meet the prescriptive envelope component criteria in Table N1102.3.7 for the sub climate zone applicable to the location. The *U*-factor of each individual fenestration product

(windows, doors and skylights) shall be used to calculate and area-weighted average fenestration product U-factor for the addition, which shall not exceed the applicable listed values in Table N1102.3.7. For additions, other than sunroom additions, the total area of fenestration products shall not exceed 40 percent of the gross wall and roof area of the addition. The R-values for opaque thermal envelope components shall be equal to or greater than the applicable listed values in Table N1102.3.7.

Conditioned sunroom additions shall maintain thermal isolation; shall not be used as kitchens or sleeping rooms.

In sub climate zones 2.1, 2.2, 3.1, 3.2 and 3.3, the combined solar heat gain coefficient (the area weighted average) of all glazed fenestration products used in additions and as replacement windows in accordance with this section shall not exceed 0.40.

(Reason: This amendment is added to satisfy the “not less restrictive” requirement when adopting subsequent editions of energy codes in accordance with Texas SB 5, 77<sup>th</sup> Legislature.)

**\*\*\*Add Table N1102.3.7 PRESCRIPTIVE ENVELOPE COMPONENT CRITERIA ADDITIONS TO AND REPLACEMENT WINDOWS FOR EXISTING DETACHED ONE- AND TWO-FAMILY DWELLINGS to read as follows:**

**Table N1102.3.7  
PRESCRIPTIVE ENVELOPE COMPONENT CRITERIA  
ADDITIONS TO AND REPLACEMENT WINDOWS FOR EXISTING DETACHED  
ONE- AND TWO-FAMILY DWELLINGS<sup>d</sup>**

SUB CLIMATE ZONES	MAXIMUM	MINIMUM					
	Fenestration U-factor	Ceiling R-value <sup>a, e</sup>	Wall R-value <sup>e</sup>	Floor R-value	Basement wall R-value <sup>b</sup>	Slab perimeter R-value	Crawl space wall R-value
2.1	0.75	R-26	R-13	R-11	R-5	R-0	R-5
2.2, 3.1, 3.2, 3.3 and 3.4	0.50	R-30	R-13	R-19	R-8	R-0	R-10
4	0.50	R-38	R-13	R-21	R-10	R-0	R-19

- a. “Ceiling R-value” shall be required for flat or inclined (cathedral) ceilings. Floors over outside air shall meet “Ceiling R-value” requirements.
- b. Basement wall insulation to be installed in accordance with Section N1102.2.6.
- c. “Crawl space wall R-value” shall apply to unventilated crawl spaces only. Crawl space insulation shall be installed in accordance with Section N1102.2.8.
- d. Sunroom additions shall be required to have a maximum fenestration U-factor of 0.5. in all sub climate zones except sub climate zone 2.1. In all sub climate zones, the minimum ceiling R-value for sunroom additions shall be R-19 and the minimum wall R-value shall be R-13.

(Reason: This amendment is added to satisfy the “not less restrictive” requirement when adopting subsequent editions of energy codes in accordance with Texas SB 5, 77<sup>th</sup> Legislature.)

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

**M1305.1.3 Appliances in attics.** Attics containing appliances requiring access shall be provided . . . *{bulk of paragraph unchanged}* . . . side of the appliance. 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, 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 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...*{remainder unchanged}*

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

---

**\*\*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 ground 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 and regional amendment to IMC 304.9)

---

**\*\*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 require thermostat wires to be protected from damage.)

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

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

---

**\*\*Section M1502.3; delete and replace with the following:**

**M1502.3 Exhaust duct size.** The minimum diameter of the exhaust duct shall be as recommended by the manufacturer, 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.)

---

**\*\*Section M1502.6; change to read as follows:**

**M1502.6 Duct Length.** 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.

**Exceptions:**

1. 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 4 inch by 6 inch 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)

2. Where large-radius ... *{remainder 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 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. Installation of direct-vent water heaters within an enclosure is not required.

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

---

**\*\*\*Section G2407.10; change to read as follows:**

**G2407.10 (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 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). Nonmotorized 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 the 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, consistent with amendment to IFGC.)

---

**\*\*\*Section 2407.11; change Exception 8 to read as follows:**

**G2407.11 (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 16 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 12 inches (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, consistent with amendment to IFGC.)

---

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

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

---

**\*\*\*Section G2408.4; change to read as follows:**

**G2408.4 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 3 inches (76 mm) above adjoining grade or shall be suspended a minimum of 6 inches (152 mm) above adjoining grade.

(Reason: Consistent with current local practice. Consistent with regional amendments to other codes and code sections.)

---

**\*\*Section G2412.5; add a second paragraph to read as follows:**

Both ends of each section of medium pressure gas piping 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 G2413.3; add an exception to read as follows:**

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

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

---

**\*\*Section G2415.9; change to read as follows:**

**G2415.9 (404.9) Minimum burial depth.** Underground piping systems shall be installed a minimum depth of 42 18 inches (305 458 mm) below grade, ~~except as provided for in Section G2415.9.4.~~

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

---

**\*\*Section G2415.9.1; delete.**

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

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**\*\*Section G2417.1; change to read as follows:**

**G2417.1 (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 2417.1.1 through 2417.1.5 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 G2417.4; change to read as follows:**

**G2417.4 (406.4) Test pressure measurement.** Test pressure shall be measured with a monometer 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. The source of pressure shall be isolated before the pressure tests are made. ~~Mechanical gauges used to measure test pressures shall have a range such that the highest end of the scale is not greater than five times the test pressure.~~

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

---

**\*\*Section G2417.4.1; change to read as follows:**

**G2417.4.1 (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 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 gauges used to measure test pressures shall utilize a dial with a minimum diaphragm 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 (14) inches 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 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 G2417.4.2; change to read as follows:**

**G2417.4.2 (406.4.2) Test duration.** The test duration shall be held for a length of time satisfactory to the Code Official, but in no case for be not less than 40-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 for less than thirty (30) minutes.

(Reason: To comply with accepted regional practices.)

---

**\*\*Add Section G2420.1.4 to read as follows:**

**G2420.1.4 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.)

---

**\*\*Section G2421.1; 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.)

---

**\*\*Section G2439.5; 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 G2439.5.1; change to read as follows:**

**G2439.5.1 (614.6.1) 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 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 that occur after the first two bends, measuring in the direction of airflow.

**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 4 inch by 6 inch 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 a large number of makes and models of dryers are capable of handling greater dryer vent length.)

---

**\*\*Section G2445.2; add an exception to read as follows:**

**G2445.2 (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 *International Fuel Gas Code* Section 108.7 of the Fuel Gas Code.

(Reason: Gives code official discretion.)

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**\*\*Section G2448.1.1; change to read as follows:**

**G2448.1.1 (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 this code.

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

---

**\*\*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 P2717.3; change to read as follows:**

**P2717.3 Sink, dishwasher and food grinder.**

The combined discharge from a sink, dishwasher, and waste grinder is permitted to discharge through a single 1.5 inch (38 mm) trap. The discharge pipe from the dishwasher shall be increased to a minimum of 0.75 inch (19.1 mm) in diameter and shall connect with a wye fitting between the discharge of the food-waste grinder and the trap inlet or to the head of the food grinder. ~~The dishwasher waste line shall rise and be securely fastened to the underside of the counter before connecting to sink tail piece or food grinder.~~ Dishwashing equipment shall discharge to the drainage system through by an approved air gap fitting.

(Reason: Provide positive backflow protection to the water supply and prevent contamination of the contents of the dishwasher.)

---

**\*\*\*Section P2801.6; add exceptions as follows:**

**Exceptions:**

1. Elevation of the ignition source is not required for water heaters that are listed as flammable vapor ignition resistant and for installation without elevation.
2. Electric Water Heater

(Reason: To coordinate with Section 2408.2 of the IRC and to except electric water heaters.)

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**\*\*Section P2902.5.3; changed to read as follows:**

**P2902.5.3 Lawn irrigation systems.** The potable water supply 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. A valve shall not be installed downstream from an atmospheric vacuum breaker. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.

(Reason: To provide clarity.)

---

**\*\*Table P2904.4. & P2904.5; delete "Polybutylene (PB) plastic pipe and tubing".**

**\*\*Sections P2904.5.1 and P2904.15; delete reference to Polybutylene (PB) plastic pipe and tubing.**

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

---

**\*\*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.)

---

**\*\*Section P3111; delete.**

(Reason: A combination waste and vent system is not approved for use in residential construction.)

---

**\*\*Section P3112.2; delete and replace with the following:**

**P3112.2 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 (6) inches (152 mm) above the flood level rim of the fixtures served. Drainage fittings shall be used on all parts of the vent below the floor level and a minimum slope of one-quarter (1/4) 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 (1) piece fitting or an assembly of a forty-five (45) degree (0.79 radius), a ninety (90) degree (1.6 radius) and a forty-five (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.

(Reason: To clarify the installation of island venting and to provide a regional guideline on a standard installation method.)

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**\*\*Chapters 33 through 42; delete. Replace with the electrical code as adopted.**

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**END**