

TOWN OF ADDISON, TEXAS

ORDINANCE NO. 011-024

AN ORDINANCE OF THE TOWN OF ADDISON, TEXAS AMENDING CHAPTER 18 (BUILDING AND BUILDING REGULATIONS) OF THE CODE OF ORDINANCES OF THE TOWN BY AMENDING VARIOUS PROVISIONS OF ARTICLE VII (HOUSING CODE) THEREOF, INCLUDING: SECTIONS 18-401 (ADOPTED), AND ADOPTING THE INTERNATIONAL RESIDENTIAL CODE, 2009 EDITION, INCLUDING CERTAIN APPENDICES THERETO (BUT CONTINUING IN EFFECT PORTIONS OF THE INTERNATIONAL RESIDENTIAL CODE, 2006), 18-425 (BUILDING/FIRE CODE BOARD OF APPEALS), 18-426 (VIOLATION PENALTIES), 18-427 (EXTERIOR WALLS), 18-428 (UNITY AGREEMENTS), 18-430 (DISPOSAL OF CONSTRUCTION WASTE), 18-431 (EXCAVATION, CONSTRUCTION AND DEMOLITION PROHIBITED AT NIGHT), 18-432 (STORMWATER RUNOFF), 18-433 (BUILDING SECURITY), 18-434 (AIRPORT NOISE), 18-435 (EXTERIOR PLASTER), 18-436 (EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)), 18-437 (ADMINISTRATIVE APPROVAL), 18-438 (LOCATION OF CLEAR SPACES), 18-439 (MINIMUM SIZE OF CONDUCTORS), 18-440 (SERVICE DISCONNECT LOCATION), AND 18-441 (AMENDMENTS TO CHAPTER 11 ENERGY EFFICIENCY); ADDING A NEW SECTION 18-428.1 (OTHER PENETRATIONS) TO THE CODE OF ORDINANCES; PROVIDING A SAVINGS CLAUSE; PROVIDING A PENALTY NOT TO EXCEED THE SUM OF FIVE HUNDRED DOLLARS (\$500.00) FOR EACH OFFENSE, AND A SEPARATE OFFENSE SHALL BE DEEMED COMMITTED EACH DAY DURING OR ON WHICH A VIOLATION OCCURS OR CONTINUES; PROVIDING A SEVERABILITY CLAUSE; PROVIDING AN EFFECTIVE DATE.

WHEREAS, the amendments set forth in this Ordinance to Chapter 18 of the Code of Ordinances of the Town of Addison, Texas (the "City") are pursuant to investigation and analysis by the City, and are with a view of and to further the purposes and objectives set forth in Section 18-31 of the Code, including to promote the health, safety, welfare, convenience and enjoyment of the public, including to protect the public welfare, and are to comply with applicable State law; and

WHEREAS, among other things, this Ordinance continues in effect the provisions of the International Residential Code, 2006 Edition for purposes of the amendment thereto set forth

OFFICE OF THE CITY SECRETARY

ORDINANCE NO. 011-024

in Section 18-429 of the Code of Ordinances, and the City Council hereby finds that the requirements included in and provisions of the said Section 18-429 have been in effect prior to January 1, 2009, and that the continuation of those requirements and provisions by this Ordinance is not and does not constitute the enactment of an ordinance, bylaw, order, building code, or rule requiring the installation of a multipurpose residential fire protection sprinkler system or any other fire sprinkler protection system in a new or existing one- or two-family dwelling after January 1, 2009; and

WHEREAS, the adoption of this Ordinance and the amendments set forth herein are for and in the best interests of the health, safety and welfare of the City and its citizens.

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

Section 1. Incorporation of Recitals. The above and foregoing recitals and premises to this Ordinance are true and correct and are incorporated herein and made a part hereof for all purposes.

Section 2. Amendment. The Code of Ordinances of the Town of Addison, Texas (the "City") is hereby amended by amending certain sections and provisions of Chapter 18 (Building and Building Regulations), Article VII (Housing Code) thereof as set forth in Exhibit A attached hereto and incorporated herein for all purposes, and all other chapters, articles, sections, subsections, sentences, phrases and words of the said Code of Ordinances are not amended hereby.

Section 3. Savings; Repealer. This Ordinance shall be cumulative of all other ordinances of the City and shall not repeal any of the provisions of those ordinances except in those instances where the provisions of those ordinances are in direct conflict with the provisions of this Ordinance. Provided, however, that the repeal of such ordinances or parts of such ordinances, and the amendments and changes made by this Ordinance, shall not affect any right, property or claim which was or is vested in the City, or any act done, or right accruing or accrued, or established, or any suit, action or proceeding had or commenced before the time when this Ordinance shall take effect; nor shall said repeals, amendments or changes affect any offense committed, or any penalty or forfeiture incurred, or any suit or prosecution pending at the time when this Ordinance shall take effect under any of the ordinances or sections thereof so repealed, amended or changed; and to that extent and for that purpose the provisions of such ordinances or parts of such ordinances shall be deemed to remain and continue in full force and effect.

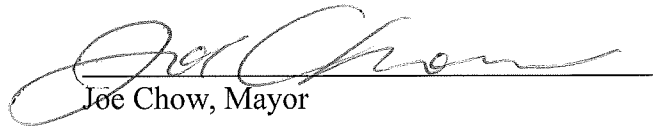
Section 4. Penalty. It shall be unlawful for any person, firm, corporation, or other business entity to violate any provision of this Ordinance, and any person, firm, corporation, or

other business entity violating or failing to comply with any provision hereof shall be fined, upon conviction, in an amount of not more than Five Hundred and No/100 Dollars (\$500.00), and a separate offense shall be deemed committed each day during or on which a violation or failure occurs or continues.

Section 5. Severability. The provisions of this Ordinance are severable, and if any section or provision of this Ordinance or the application of any section or provision to any person, firm, corporation, entity, situation or circumstance is for any reason adjudged invalid or held unconstitutional by a court of competent jurisdiction, the same shall not affect the validity of any other section or provision of this Ordinance or the application of any other section or provision to any other person, firm, corporation, entity, situation or circumstance, and the City Council declares that it would have adopted the valid portions of this Ordinance adopted herein without the invalid or unconstitutional parts and to this end the provisions of this Ordinance adopted herein shall remain in full force and effect.

Section 6. Effective Date. This Ordinance shall become effective from and after its passage and approval and its publication as may be required by law (including, without limitation, the City Charter and the ordinances of the City).

PASSED AND APPROVED by the City Council of the Town of Addison, Texas this 22nd day of March, 2011.


Joe Chow, Mayor

ATTEST:

By: 
Lea Dunn, City Secretary

APPROVED AS TO FORM:

By: 
John Hill, City Attorney

EXHIBIT A
TO ORDINANCE NO. 011-024

Chapter 18 (Building and Building Regulations), of the Code of Ordinances (the "Code") of the Town of Addison, Texas is hereby amended by amending various sections of Article VII (Housing Code) thereof as set forth below and as follows (additions are underlined; deletions are ~~struck through~~):

1. Section 18-401 of the Code is amended to read as follows:

Sec. 18-401. Adopted.

For the purpose of providing minimum standards to safeguard life or limb, health, property and public welfare by regulating and controlling the design, construction, quality of materials used, use and occupancy, location and maintenance of all buildings and structures within the city and certain equipment specifically regulated herein, the International Residential Code, ~~20092006~~ Edition (for purposes of this Article, the "2009 International Residential Code," a copy of which, authenticated by the signature of the mayor and the city secretary, and made a public record by ordinance, is on file in the city secretary's office), is hereby adopted as the building code of the city as fully as if copied at length in this article, but with the changes therein and additions thereto to provided in this article. Also, adopted are Appendices **E, F, G, H, I, J and K** of the ~~20092006~~ Edition of the International Residential Code.

Notwithstanding the adoption of the 2009 International Residential Code, Section R325 of the International Residential Code, 2006 Edition (for purposes of this Article, the "International Residential Code"), as added by an amendment to the International Residential Code as set forth in Section 18-429, below, and any provisions of the International Residential Code (including, without limitation, any appendices) that are deemed by the Building Official of the Town of Addison to be necessary for or useful to the application, interpretation, and/or enforcement of the said Section R325, are continued in

full force and effect. To the extent of any conflict between the provisions of the International Residential Code as continued hereby and the provisions of the 2009 International Residential Code, the provisions of the International Residential Code shall control.

Section R313 of the 2009 International Residential Code are not adopted hereby and are excluded from the adoption of the 2009 International Residential Code.

2. All references to the "International Residential Code" included in Sections 18-421 through 18-428, and in Sections 18-430 through 18-441, shall mean and are amended to read "2009 International Residential Code".

3. Section 18-425 of the Code is amended to read as follows;

Sec. 18-425. Building/Fire Code Board of Appeals.

The 2009 International Residential Code is amended by amending Section R112 in its entirety as follows:

R112. Building/Fire Code Board of Appeals. For purposes of this code, appeals shall be to the board of appeals, being denominated as the Building/Fire Code Board of Appeals, which shall consist of the members of the board of adjustment appointed by the city council pursuant to Appendix A, Article XXIV of the Code of Ordinances of the Town of Addison. The provisions applicable to the board of appeals as set forth in Section 112.1 and 112.2 below and described in Section ~~113~~112 of the International Building Code adopted by the town, including, without limitation, general provisions, limitations of power, powers of the board, and appeal process, shall be applicable to and govern appeals and the said board of appeals for purposes of this code.

112.1 Determination of substantial improvement in areas prone to flooding.

When the building official provides a finding required in Section R105.3.1.1, the board of appeals shall determine whether the value of the proposed work constitutes a substantial improvement. A substantial improvement means any repair, reconstruction, rehabilitation, addition or improvement of a building or structure, the cost of which equals or exceeds 50 percent of the market value of the building or structure before the improvement or repair is started. If the building or structure has sustained substantial damage, all repairs are considered

substantial improvement regardless of the actual repair work performed. The term does not include:

1. Improvements of a building or structure required to correct existing health, sanitary or safety code violations identified by the building official and which are the minimum necessary to assure safe living conditions; or
2. Any alteration of an historic building or structure, provided that the alteration will not preclude the continued designation as an historic building or structure. For the purpose of this exclusion, an historic building is:
 - 2.1. Listed or preliminarily determined to be eligible for listing in the National Register of Historic Places; or
 - 2.2. Determined by the Secretary of the U.S. Department of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined to qualify as an historic district; or
 - 2.3. Designated as historic under a state or local historic preservation program that is approved by the Department of Interior.

112.2 Criteria for issuance of a variance for areas prone to flooding. A variance shall only be issued upon:

1. A showing of good and sufficient cause that the unique characteristics of the size, configuration or topography of the site render the elevation standards in Section ~~R322~~R324 inappropriate.
2. A determination that failure to grant the variance would result in exceptional hardship by rendering the lot undevelopable.
3. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, nor create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
4. A determination that the variance is the minimum necessary to afford relief, considering the flood hazard.

5. Submission to the applicant of written notice specifying the difference between the design flood elevation and the elevation to which the building is to be built, stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced floor elevation, and stating that construction below the design flood elevation increases risks to life and property.

4. Section 18-426 of the Code is amended to read as follows:

Sec. 18-426. Violation penalties.

The 2009 International Residential Code is amended by changing subsection R113.4 to read as follows:

R113.4 Violation penalties. See subsection 114.4113.4 of the International Building Code.

5. Section 18-427 of the Code is amended in its entirety to read as follows:

Sec. 18-427. Exterior Walls.

The 2009 International Residential Code is amended by changing exception 3 in subsection R302.1 to read as follows:

Exception 3. Detached tool sheds and storage sheds, playhouses and similar structures where the floor areas does not exceed 200 square feet are not required to provide wall protection based on location on the lot. Projections beyond the exterior wall shall not extend over the lot lines.

6. Section 18-428 of the Code is amended to read as follows:

Sec. 18-428. Unity Agreements.

The 2009 International Residential code is amended by

adding

Exception 6 to section R302.1~~Section R302.2~~ to read as follows:

Exception 6~~R302.2~~ Unity agreement. See Section 705.15704.15 of the International Building Code.

7. A new Section 18-428.1 is added to the Code to read as follows:

Sec. 18-428.1 Other penetrations.

The 2009 International Residential Code is amended by changing Section R302.5.3 to read as follows:

R302.5.3 Other penetrations. Penetrations through the separation required in Section R302, shall be protected as required by Section R302.11, Item 11.

8. Section 18-430 of the Code is amended to read as follows:

Sec. 18-430. Disposal of Construction Waste.

The 2009 International Residential Code is amended by adding Section R324~~subsection R326~~ to read as follows:

SECTION R324~~R326~~

DISPOSAL OF CONSTRUCTION WASTE

R324.1~~R326.1~~ General. See Section 3313 of the International Building Code.

9. Section 18-431 of the Code is amended to read as follows:

Sec. 18-431. Excavation, Construction or Demolition at night prohibited.

The 2009 International Residential Code is amended by adding Section R325R327 to read as follows:

SECTION R325R327

EXCAVATION, CONSTRUCTION OR DEMOLITION AT NIGHT PROHIBITED

R325.1R327.1 General. See Section 3314 of the International Building Code.

10. Section 18-432 of the Code is amended to read as follows:

Sec. 18-432. Stormwater Runoff.

The 2009 International Residential Code is amended by adding Section R326R328 to read as follows:

SECTION R326R328
STORMWATER RUNOFF

R326.1R328.1 General. See Section 3315 of the International Building Code.

11. Section 18-433 of the Code is amended to read as follows:

Sec. 18-433. Building Security.

The 2009 International Residential Code is amended by adding Section R327R329 to read as follows:

SECTION R327R329
BUILDING SECURITY

R327.1R329.1 General. See Chapter 36 of the International Building Code.

12. Section 18-434 of the Code is amended to read as follows:

Sec. 18-434. Airport Noise.

The 2009 International Residential Code is amended by adding Section R328R330 to read as follows:

SECTION R328R330

AIRPORT NOISE

R328.1R330.1 General. See Chapter 37 of the International Building Code.

13. Section 18-435 of the Code is amended to read as follows:

Sec. 18-435. Exterior Plaster.

The 2009 International Residential Code is amended by adding subsection R703.6.6R703.6.4 to read as follows:

R703.6.6R703.6.4 3/8" One-coat stucco system. See subsection 2512.10 of the International Building Code.

14. Section 18-436 of the Code is amended to read as follows:

Sec. 18-436. Exterior insulation and finish system (EIFS).

The 2009 International Residential Code is amended by adding subsection R703.9.5R703.9.3 to read as follows:

R703.9.5R703.9.3 Requirements: In addition to the above requirements the exterior insulation and finish system shall comply with subsection 1408.61403.8 of the International Building Code.

15. Section 18-437 of the Code is amended to read as follows:

Sec. 18-437. Administrative approval.

The 2009 International Residential Code is amended by adding subsection P3114.9~~P3114.8~~ to read as follows:

P3114.9~~P3114.8~~ Administrative approval. The administration shall have final approval of all location of air admittance valves.

16. Section 18-438 of the Code is amended to read as follows:

Sec. 18-438. Location of clear spaces.

The 2009 International Residential Code is amended by adding a sentence to subsection E3405.4~~E3305.4~~ to read as follows:

Overcurrent devices shall be permitted in clothes closets if the working clearances required in subsection E3305.2 are maintained.

17. Section 18-439 of the Code is amended to read as follows:

Sec. 18-439. Minimum size of conductors.

The 2009 International Residential Code is amended by changing the first sentence of subsection E3406.3~~E3306.3~~ to read as follows:

The minimum size of conductors for feeders and branch circuits shall be No. 14 copper and aluminum conductors shall be No. 8 or larger and shall not be used on branch circuits.

18. Section 18-440 of the Code is amended to read as follows:

Sec. 18-440. Service disconnect location.

The 2009 International Residential Code is amended by adding sentences to subsection E3601.6.2~~E3501.6.2~~ to read as follows:

Unfused service entrance conductors entering buildings shall be enclosed in rigid metal conduit, wireways, auxiliary gutters, or as busways. Unfused service conductors extending within the building above the third floor shall be enclosed in at least two inches of concrete, except in meter rooms.

19. Section 18-441 of the Code is amended to read as follows:

Sec. 18-441. Amendments to Chapter 11 Energy Efficiency.

The 2009 International Residential Code is amended by changing Section N1101.2.1, N1102.1 and N1102.2.12 to read as follows:

N1101.2.1. Compliance software tools. Software tools used to demonstrate energy code compliance utilizing the UA alternate approach shall be approved by the building official. The PNL program REScheck™ is not acceptable for residential compliance.

Exception: When REScheck™ "UA Trade-off" compliance approach or the UA Alternative compliance approach is used, the compliance certificate must demonstrate that the maximum glazed area does not exceed 15% of the conditioned floor area.

N1102.1. 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. The use of Tables N1102.1 and N1102.2.2 are limited to a maximum glazing area of 15% window to floor area ratio.

N110.2.12. 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.

~~Chapter 11 Energy Efficiency of the International Residential Code is amended to read as follows:~~

~~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.~~

~~Amend Section N1101.7 to read as follows:~~

~~N1101.7 Alternate 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 Star Program certification of energy code equivalency shall be considered in compliance.~~

~~Amend Figure N1101.2 to read as follows:~~

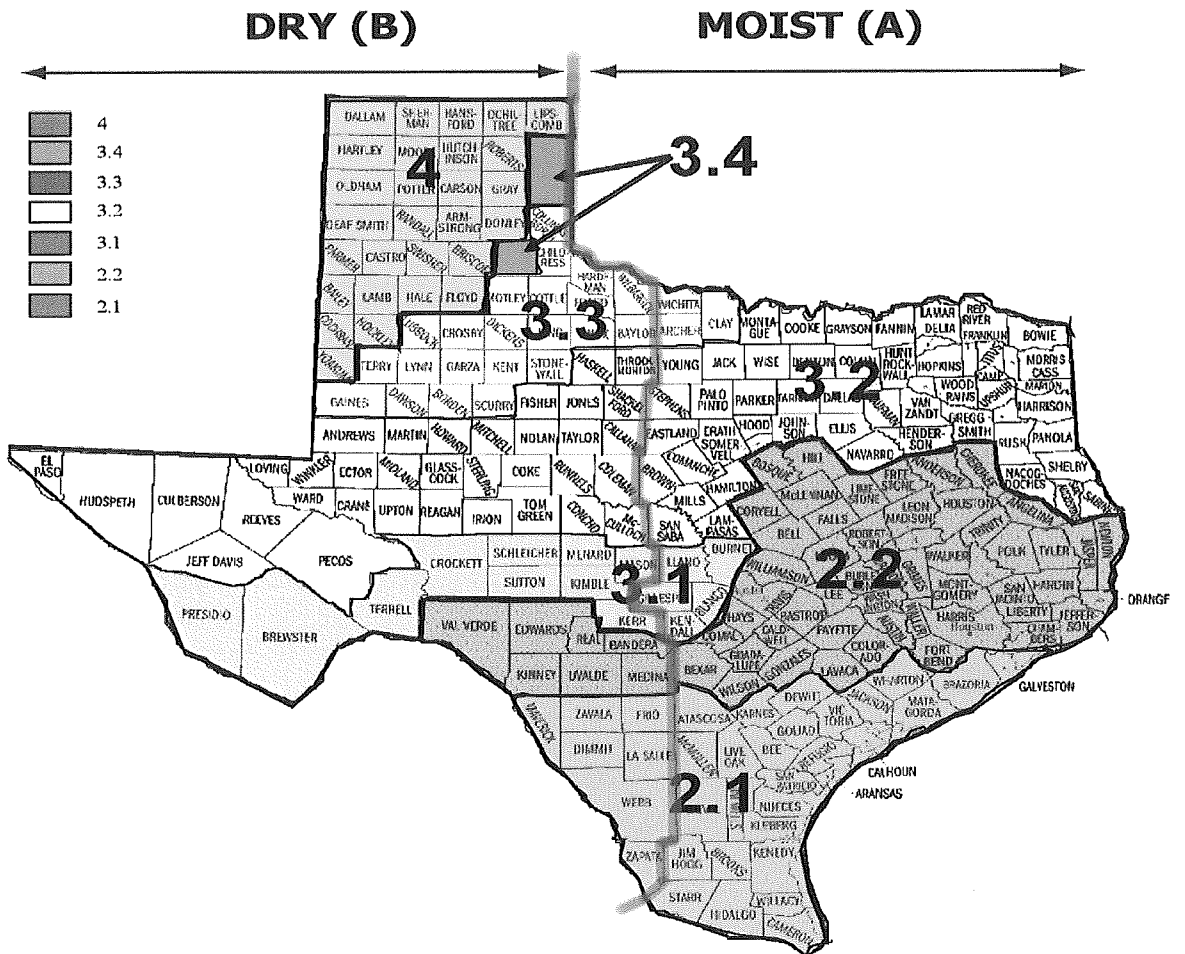


FIGURE N1101.2 TEXAS CLIMATE ZONES

Amend Table N1101.2.1 to read as follows:

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

Zone 2							
ANDERSON	2.2	DE WITT	2.1	JIM HOGG	2.1	ORANGE	2.2
ANGELINA	2.2	DIMMIT	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

Zone 3

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

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-PATRIGIO	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	NUEGES	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 2.4 KARNES 2.4 RAINS 3.2 ZAVALA 2.1

~~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.~~

~~Amend Table N1102.1 to read as follows:~~

**TABLE N1102.1
 INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT (TEXAS)^a**

CLIMATE - SUB CLIMATE ZONE	MAX GLAZED AREA TO WALL AREA RATIO	MAX GLAZED FENESTRATION U-FACTOR	MAX SKYLIGHT U-FACTOR ^b	MAX GLAZED FENESTRATION SHGC	MIN CEILING R-VALUE	MIN WOOD FRAME WALL R-VALUE ^d	MASS WALL R-VALUE	MIN FLOOR R-VALUE	MIN BASEMENT WALL R-VALUE	MIN SLAB R-VALUE & DEPTH ^c	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 ^e	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 ^e	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 ^e	7	19	6	0	7
	30	0.46	0.65	0.38	38	16, 13+3.7 ^e	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 ^e	7	19	7	0	9

	30	0.40	0.65	0.40	38	19, 13 + 8.1 ^e	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 ^e	9	19	8	6, 2 ft	13
	30	0.37	0.60	NR	38	19, 13 + 8.1 ^e	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 ^e	10	19	9	6, 2 ft	13
	30	0.37	0.60	NR	38	19, 13 + 8.1 ^e	10	30	9	6, 2 ft	13

For SI: 1 foot = 304.8 mm.

- a. *R* values are minimums. *U* factors and SHGC are maximums. R-19 shall be permitted to be compressed into a 2 x 6 cavity.
- b. The fenestration *U*-factor column excludes skylights. The SHGC column applies to all glazed fenestration.
- c. R-5 shall be added to the required slab edge *R* values for heated slabs.
- d. The total *R* value may be achieved with a combination of cavity insulation and insulating sheathing that covers 100% of the exterior wall.
- e. 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.

Amend Table N1102.1.2 to read as follows:

**TABLE N1102.1.2
EQUIVALENT U-FACTORS^a**

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.~~

~~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.~~

~~Add Section N1102.2.11. Insulation installed in walls. to read as follows:~~

~~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.~~

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

~~N1102.3.3 Glazed fenestration exemption. Up to 1 percent of glazed fenestration per dwelling unit shall be permitted to be exempt from U-factor and SHGC requirements in Section 402.1.~~

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

~~N1102.3.5 Thermally isolated sunroom. New windows and doors~~

~~separating the sunroom from conditioned space shall meet the building envelope requirements.~~

~~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 in Table N1102.3.7.~~

~~Exceptions:~~

~~1. Replacement skylights shall have a maximum U-factor of 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, 77th Legislature, replacement fenestration units may comply with the original construction documents or applicable U-factor in N1102.1.~~

~~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 mm) to existing single-family residential buildings and structures shall meet the prescriptive envelope criteria in Table N1102.3.7 for the sub climate zone applicable to the location. The U-factor of each individual fenestration product (windows, door 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 the fenestration products shall not exceed 40 percent of the gross wall and roof area of the addition. The R-values for opaque thermal envelope component 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.~~

~~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^d**

SUB CLIMATE ZONES	MAXIMUM	MINIMUM					
	Fenestration U-factor	Ceiling R-value ^{a, e}	Wall R-value ^e	Floor R-value	Basement wall R-value ^b	Slab perimeter R-value	Crawl-space wall R-value
2.1	0.75	R-26	R-13	R-14	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.~~