

**AN ORDINANCE OF THE TOWN OF PROSPER, TEXAS, REPEALING ARTICLE 3.08, "ENERGY CONSERVATION," OF CHAPTER 3, "BUILDING REGULATIONS," OF THE CODE OF ORDINANCES OF THE TOWN OF PROSPER, TEXAS, AND REPLACING IT WITH A NEW ARTICLE 3.08, "ENERGY CONSERVATION"; ADOPTING THE 2021 EDITION OF THE INTERNATIONAL ENERGY CONSERVATION CODE, SAVE AND EXCEPT THE DELETIONS AND AMENDMENTS SET FORTH HEREIN; REGULATING THE DESIGN OF BUILDING ENVELOPES FOR ADEQUATE THERMAL RESISTANCE AND LOW AIR LEAKAGE AND THE DESIGN AND SELECTION OF MECHANICAL, ELECTRICAL, SERVICE WATER-HEATING, AND ILLUMINATION SYSTEMS AND EQUIPMENT WHICH WILL ENABLE EFFECTIVE USE OF ENERGY IN NEW BUILDING CONSTRUCTION WITHIN THE TOWN OF PROSPER; PROVIDING FOR A PENALTY FOR THE VIOLATION OF THIS ORDINANCE; PROVIDING FOR REPEALING, SAVINGS, AND SEVERABILITY CLAUSES; PROVIDING FOR AN EFFECTIVE DATE OF THIS ORDINANCE AND PROVIDING FOR THE PUBLICATION OF THE CAPTION HEREOF.**

**WHEREAS**, the Town Council of the Town of Prosper, Texas (the "Town Council"), has investigated and determined that it would be advantageous and beneficial to the citizens of Prosper to repeal the existing Article 3.08, "Energy Conservation Code," of the Code of Ordinances and replace it with a new Article 3.08, "Energy Conservation Code"; and,

**WHEREAS**, the Town Council has also investigated and determined that it would be advantageous and beneficial to the citizens of Prosper to adopt the 2021 Edition of the Energy Conservation Code, save and except the amendments and deletions set forth below.

**NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF PROSPER, TEXAS, THAT:**

### **SECTION 1**

The findings set forth above are incorporated into the body of this Ordinance as if fully set forth herein.

### **SECTION 2**

Existing Article 3.08, "Energy Conservation Code," of the Code of Ordinances of the Town of Prosper Texas, is hereby repealed in its entirety and replace with a new Article 3.08, "Energy Conservation Code," to read as follows:

#### **"ARTICLE 3.08 ENERGY CONSERVATION CODE**

##### **Sec. 3.08.001 Code Adopted; amendments**

The International Energy Conservation Code, 2021 Edition, copyrighted by the International Code Council, Inc., save and except the deletions and amendments set forth in Exhibit "A," attached

hereto and incorporated herein for all purposes, is hereby adopted as the Energy Conservation Code for the Town, regulating the design of building envelopes for adequate thermal resistance and low air leakage and the design and selection of mechanical, electrical, service water-heating, and illumination systems and equipment which will enable effective use of energy in new building construction within the Town (the "2021 International Energy Conservation Code"). The 2021 International Energy Conservation Code is made a part of this Article as if fully set forth herein. A copy of the International Energy Conservation Code, 2021 Edition, copyrighted by the International Code Council, Inc., is on file in the office of the Town Secretary of Prosper being marked and so designated as the 2021 International Energy Conservation Code."

### **SECTION 3**

Should any section, subsection, sentence, clause, or phrase of this Ordinance be declared unconstitutional or invalid by a court of competent jurisdiction, it is expressly provided that any and all remaining portions of this Ordinance shall remain in full force and effect. The Town hereby declares that it would have passed this Ordinance, and each section, subsection, sentence, clause, or phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, and phrases be declared unconstitutional or invalid.

### **SECTION 4**

All provisions of any ordinance in conflict with this Ordinance are hereby repealed to the extent they are in conflict; but such repeal shall not abate any pending prosecution from being commenced for any violation if occurring prior to the repeal of the Ordinance. Any remaining portions of said ordinances shall remain in full force and effect.

### **SECTION 5**

Any person, firm, corporation, or business entity violating this Ordinance shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be subject to a fine not to exceed the sum of Two Thousand Dollars (\$2,000.00), and each and every day such violation shall continue shall constitute a separate offense.

### **SECTION 6**

This Ordinance shall become effective on April 1, 2023, after its adoption and publication as required by law.

**DULY PASSED, APPROVED, AND ADOPTED BY THE TOWN COUNCIL OF THE TOWN OF PROSPER, TEXAS, ON THIS 24TH DAY OF JANUARY, 2023.**

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**David F. Bristol, Mayor**

**ATTEST:**

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**Michelle Lewis Sirianni, Town Secretary**

**APPROVED AS TO FORM AND LEGALITY:**

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**Terrence S. Welch, Town Attorney**

**Exhibit A**  
**Town of Prosper Amendments to the**  
**2021 International Energy Conservation Code**  
**The following additions, deletions, and amendments to the 2021 International Energy**  
**Conservation Code are hereby approved and adopted.**

**Section C101.1; change to read as follows:**

**C101.1 Title.** This code shall be known as the Energy Conservation Code of the Town of Prosper and shall be cited as such. It is referred to herein as “this code.”

**Section C102.1.2; change to read as follows:**

**C102.1.2 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.

**Section C104.2; change to read as follows:**

**C104.2 Schedule of permit fees.** The fee schedule for all Energy Conservation Code work shall be as indicated in the Town of Prosper Fee Schedule as adopted by the Town Council.

**Section C104.3; change to read as follows:**

**C104.3 Work commencing before permit issuance.** Any person who commences any work before obtaining the necessary permits shall be subject to a penalty of 100% of the usual permit fee in addition to the required permit fees.

**Section C104.5; change to read as follows:**

**C104.5 Refunds.** The Code Official shall authorize the refunding of fees as follows:

1. The full amount of any fee paid hereunder that was erroneously paid or collected. Not more than eight percent (80%) of the permit fee paid when no work has been done under a permit issued in accordance with this Code.
2. Not more than eight percent (80%) of the plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or cancelled before any plan review effort has been expended.
3. The Code Official shall not authorize the refunding of any fee paid except upon written application filed by the original permittee not later than 180 days after the date of fee payment.

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**Section C109.4; change to read as follows:**

**C109.4 Failure to comply.** Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be guilty of a misdemeanor and, upon conviction, may be fined up to the maximum amount allowed by Texas law. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

**Sections C110.1 through C110.3; Sections C110.1 through C110.3 is amended to be removed and replaced with Section C110.1 Board of Appeals.**

**C110.1 Board of Appeals.** Any person shall have the right to appeal a decision of the Code Official to the Board of Appeals, as established by ordinance. The board shall be governed by the Town of Prosper's enabling ordinance.

**Section C402.2; C402.2 is amended by adding the Section C402.2.8 Insulation installed in walls.**

**C402.2.8 Insulation installed in walls.** To ensure that insulation remains in place, insulation installed in walls shall be totally enclosed on all sides consisting of framing lumber, gypsum, sheathing, wood structural panel sheathing, netting, or other equivalent material approved by the Code Official.

**Section C402.5.2; change to read as follows:**

C402.5.2 Dwelling and sleeping unit enclosure testing. The building thermal envelope shall be tested in accordance with ASTM E779, ANSI/RESNET/ICC 380, ASTM E1827 or an equivalent method approved by the code official. The measured air leakage shall not exceed 0.30 cfm/ft<sup>2</sup> (1.5 Us m<sup>2</sup>) of the testing unit enclosure area at a pressure differential of 0.2 inch water gauge (50 Pa). Where multiple dwelling units or sleeping units or other occupiable conditioned spaces are contained within one building thermal envelope, each unit shall be considered an individual testing unit, and the building air leakage shall be the weighted average of all testing unit results, weighted by each testing unit's enclosure area. Units shall be tested separately with an unguarded blower door test as follows:

1. Where buildings have fewer than eight testing units, each testing unit shall be tested.
2. For buildings with eight or more testing units, the greater of seven units or 20 percent of the testing units in the building shall be tested, including a top floor unit, a ground floor unit, a middle floor unit, and a unit with the largest testing unit enclosure area. For each tested unit that exceeds the maximum air leakage rate, an additional two three units shall be tested, including a mixture of testing unit types and locations.

**Section R101.1: change to read as follows:**

**R101.1 Title.** This code shall be known as the Energy Conservation Code of the Town of Prosper, and shall be cited as such. It is referred to herein as "this code."

**Section R102.1.2; change to read as follows:**

**R102.1.2 (N1101.4.1) 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. Regardless of the program or the path to compliance, each 1- and 2-family dwelling shall be tested for air and duct leakage as prescribed in Section R402.4.1.2 (N1102.4.1.2) and R403.3.3 (N1103.3.3) respectively.

**Section 105.2 Required Inspections; Changed numbering and to read as follows:**

**R105.2.1 Footing and foundation inspection.**

Inspections associated with footings and foundations shall verify compliance with the code as to R-value, location, thickness, depth of burial and protection of insulation as required by the code and approved plans and specifications.

**R105.2.2 Framing and Air Barrier rough-in inspection.**

Inspections at framing and rough-in shall be made before application of ~~interior finish~~ insulation and shall verify compliance with the code as to: air leakage controls as required by the code; and approved plans and specifications.

**R105.2.3 Insulation and Fenestration rough-in inspection.**

Inspections at framing and rough-in shall be made before application of interior finish and shall verify compliance with the code as to: types of insulation and corresponding R-values and their correct location and proper installation; fenestration properties such as U-factor and SHGC and proper installation.

**R105.2.4 Plumbing rough-in inspection.**

Inspections at plumbing rough-in shall verify compliance as required by the code and approved plans and specifications as to types of insulation and corresponding R-values and protection and required controls.

**R105.2.5 Mechanical rough-in inspection.**

Inspections at mechanical rough-in shall verify compliance as required by the code and approved plans and specifications as to installed HVAC equipment type and size, required controls, system insulation and corresponding R-value, system air leakage control, programmable thermostats, dampers, whole-house ventilation, and minimum fan efficiency.

**Exception:** Systems serving multiple dwelling units shall be inspected in accordance with Section C105.2.4.

**R105.2.6 Final inspection.**

The building shall have a final inspection and shall not be occupied until approved. The final inspection shall include verification of the installation of all required building systems, equipment and controls and their proper operation and the required number of high-efficacy lamps and fixtures. All buildings and dwelling units shall be tested for air leakage in accordance with Chapter 4.

**Section R104.2; change to read as follows:**

**R104.2 Schedule of permit fees.** The fees schedule for all Energy Conservation Code work shall be as indicated in the Town of Prosper Fee Schedule as adopted by the Town Council.

**Section R104.3; change to read as follows:**

**R104.3 Work commencing before permit issuance.** Any person who commences any work prior to obtaining the necessary permits shall be subject to a penalty of 100% of the usual permit fee in addition to the required permit fees.

**Section R104.5; change to read as follows:**

**R104.5 Refunds.** The Code Official shall authorize the refunding of fees as follows:

1. The full amount of any fee paid hereunder that was erroneously paid or collected. Not more than eight percent (80%) of the permit fee paid when no work has been done under a permit issued in accordance with this Code.
2. Not more than eight percent (80%) of the plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or cancelled before any plan review effort has been expended.
3. The Code Official shall not authorize the refunding of any fee paid except upon written application filed by the original permittee not later than 180 days after the date of fee payment.

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

**Section R109.4; change to read as follows:**

**R109.4 Failure to comply.** Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be guilty of a misdemeanor and, upon conviction, may be fined up to the maximum amount allowed by Texas law. Each day that a violation continues after due notice has been served shall be deemed a separate offence.

**Sections R110.1 through R110.3; Sections R110.1 through R110.3 is amended to be removed and replaced with Section C110.1 Board of Appeals.**

**R110.1 Board of Appeals.** Any person shall have the right to appeal a decision of the Code Official to the Board of Appeals, as established by ordinance. The board shall be governed by the Town of Prosper's enabling ordinance.

**Section R202 (N1101.6) Definitions; add the following definition:**

**PROJECTION FACTOR.** The ratio of the horizontal depth of the overhang, eave or permanently attached shading device, divided by the distance measured vertically from the bottom of the fenestration glazing to the underside of the overhang, eave or permanently attached shading device.

**Section R202 (N1101.6) Definitions; add the following definition:**

**DYNAMIC GLAZING.** Any fenestration product that has the fully reversible ability to change its performance properties, including *U*-factor, solar heat gain coefficient (SHGC), or visible transmittance (VT).

**Section R401.2.5 Additional Energy efficiency; delete in its entirety.**

**Table 402.1.2 Maximum Assembly/Climate Zone items: amend table as follows:**

Climate Zone	Fenestration U-Factor <sup>f</sup>	Ceiling U-Factor
2	.40	0.29
3	0.32	0.29

**Table 402.1.3 Insulation/Climate Zone items: amend table as follows:**

Climate Zone	Fenestration U-Factor <sup>b,i</sup>	Ceiling R-Value	Wood Frame Wall R-Value	Slab R-Value & Depth
2	.40	42	13 or 0 + 10	0
3	0.32	42	19 or 13+3ci, 0+15	0

**Section R402.4.1.2 Testing; add the following paragraph to the end.**

Mandatory testing shall only be performed by individuals that are certified to perform air infiltration testing by national or state organizations as approved by the Code Official. The certified individual(s) shall be an independent third-party entity, and may not be employed or have any financial interest in the company that constructs the structure.

**Section R403.3.5 Duct Testing; add the following paragraph to the end.**

Mandatory testing shall only be performed by individuals that are certified to perform air infiltration testing by national or state organizations as approved by the Code Official. The certified individual(s) shall be an independent third-party entity, and may not be employed or have any financial interest in the company that constructs the structure.

**Section R402.4.1 Building thermal envelope; add section R402.4.1.4 to read as follows:**

**R402.4.1.4.** Sampling options for R2 multifamily dwelling units. For buildings with eight or more testing units that must be tested as required by R402.4.1.2 or R402.4.1.3, the greater of seven units or 20 percent of the testing units in the building shall be tested, including a top floor unit, a ground floor unit, a middle floor unit, and a unit with the largest testing unit enclosure area. For each tested unit that exceeds the maximum air leakage rate, an additional three units shall be tested, including a mixture of testing unit types and locations. Where buildings have fewer than eight testing units, each testing unit shall be tested.



**Section R402.4.6; change to read as follows:**

**R402.4.6.** Electrical and communication outlet boxes (air-sealed boxes). Electrical and communication outlet boxes installed in the building thermal envelope shall be sealed to limit air leakage between conditioned and unconditioned spaces.

**Section R403.3 Ducts; add section R403.3.8 to read as follows:**

**R403.3.8.** Sampling options for R2 multifamily dwelling units. For buildings with eight or more testing units that must be tested as required by R403.3.5, the greater of seven units or 20 percent of the testing units in the building shall be tested, including a top floor unit, a ground floor unit, a middle floor unit, and a unit with the largest testing unit floor area. For each tested unit that exceeds the maximum duct leakage rate, an additional three units shall be tested, including a mixture of testing unit types and locations. Where buildings have fewer than eight testing units, each testing unit shall be tested.

**Section R403.6 Mechanical Ventilation; add section R403.6.4 to read as follows**

**R403.6.4.** Sampling options for R2 multifamily dwelling units. For buildings with eight or more testing units that must be tested as required by R403.6.3, the greater of seven units or 20 percent of the testing units in the building shall be tested, including a top floor unit, a ground floor unit, a middle floor unit, and a unit with the largest testing unit floor area. For each tested unit that does not meet the minimum ventilation rate, an additional three units shall be tested, including a mixture of testing unit types and locations. Where buildings have fewer than eight testing units, each testing unit shall be tested.

**Section R404.2 Interior Lighting Controls; delete in its entirety.**

**Section R405.2; change to read as follows:**

R405.2 Performance-based compliance. Compliance based on total building performance requires that a proposed design meets all of the following:

1. The requirements of the sections indicated with Table R405.2.
2. The building thermal envelope greater than or equal to levels of efficiency and solar heat gain coefficients in Table R402.1.1 or R402.1.3 of the 2009 International Energy Conservation Code.
3. An annual energy cost that is less than or equal to the annual energy cost of the 2021 standard reference design or 8% less than the annual energy cost of the 2018 standard reference design. Energy prices shall be taken from a source approved by the code official, such as the Department of Energy, Energy Information Administration's State Energy Data System Prices and Expenditures reports. Code officials shall be permitted to require time-of-use pricing in energy cost calculations.

**Exception:** The energy use based on source energy expressed in Btu or Btu per square foot of conditioned floor area shall be permitted to be substituted for the energy cost. The source energy multiplier for electricity shall be 3.16. The source energy multiplier for fuels other than electricity shall be 1.1.

**Section R405.5.2 Specific Approval; add the following paragraph to the end.**

Acceptable performance software simulation tools may include, but are not limited to, REM Rate <sup>TM</sup>, Energy Gauge® and IC3. Other performance software programs accredited by RESNET BESTEST and having the ability to provide a report as outlined in R405.4.2 may also be deemed acceptable performance simulation programs and may be considered by the Code Official.

**TABLE R406.4 (N1106.4) MAXIMUM ENERGY RATING INDEX; amend to read as follows:**

**TABLE R406.4 (N1106.4) <sup>1</sup>  
MAXIMUM ENERGY RATING INDEX**

CLIMATE ZONE	ENERGY RATING INDEX
2	59
3	59

<sup>1</sup> The table is effective from September 1, 2022 to August 31, 2025.

**TABLE R406.4 (N1106.4) <sup>2</sup>  
MAXIMUM ENERGY RATING INDEX**

CLIMATE ZONE	ENERGY RATING INDEX
2	57
3	57

<sup>2</sup> The table is effective from September 1, 2025 to August 31, 2028.

**TABLE R406.4 (N1106.4) <sup>3</sup>  
MAXIMUM ENERGY RATING INDEX**

CLIMATE ZONE	ENERGY RATING INDEX
2	55
3	55

<sup>3</sup> This table is effective on or after September 1, 2028.

**Section R408 ADDITIONAL EFFICIENCY PACKAGE OPTIONS; delete in its entirety.**

**NOTE :** HB 3215 was signed into law by the Governor on June 14, 2021 as part of the 87<sup>th</sup> Regular Session Codified in Chapter 388 Texas Building Energy Performance Standards: §388.003 (i), (j), and (k). HB 3215 now allows a **Home Energy Rating System Index (ex. HERS Index)** utilizing ANSI/RESNET/ICC Standard 301 (as it existed on January 1, 2021) shall be considered in compliance with State law provided that:

- The home includes compliance with the Mandatory requirements of 2018 IECC Section R406.2.
- The home includes compliance with Building thermal envelope provisions of Table R402.1.2 or Table R402.1.4 of the 2018 IECC

**END**