



## ORDINANCE NO. 3795

**AN ORDINANCE OF THE CITY OF FARMERS BRANCH, TEXAS, AMENDING CODE OF ORDINANCES CHAPTER 22 “BUILDINGS AND BUILDING REGULATIONS” ARTICLE VII.7 “ENERGY CONSERVATION CODE” BY AMENDING SECTION 22-241 “LOCAL AMENDMENTS TO INTERNATIONAL ENERGY CODE” TO ADD PROVISIONS RELATING TO SOLAR READY CONSTRUCTION; PROVIDING A REPEALING CLAUSE; PROVIDING A SAVINGS CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING FOR A PENALTY OF FINE NOT TO EXCEED TWO THOUSAND DOLLARS (\$2,000.00) FOR EACH OFFENSE; AND PROVIDING AN EFFECTIVE DATE**

**WHEREAS**, the International Code Council (ICC) has developed a set of comprehensive and coordinated national model construction codes (known generally as the “International Codes”); and

**WHEREAS**, the City of Farmers Branch has been involved throughout the development process of the International Codes, through participation with the North Texas Chapter of the International Code Council and through the regional review process by the Regional Codes Coordinating Committee of the North Central Texas Council of Governments (NCTCOG); and

**WHEREAS**, the Regional Codes Coordinating Committee of the North Central Texas Council of Governments (NCTCOG) released an opinion statement recommending that if jurisdictions adopt residential solar ready provisions of the 2021 IECC and IRC, that no amendments are needed; and

**WHEREAS**, the Sustainability Plan recommends the adoption of a solar ready code to remove barriers to solar adoption with the goal of increasing renewable energy and reducing greenhouse gas emissions; and

**WHEREAS**, the Sustainability Committee has reviewed the model language for solar ready codes prepared by the ICC and, with certain changes, recommends their adoption; and

**WHEREAS**, the City Council of the City of Farmers Branch finds it to be in the public interest to amend the Code of Ordinances to adopt local amendments to the International Energy Conservation Code relating to solar ready construction.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF FARMERS BRANCH, TEXAS, THAT:**

**SECTION 1.** Chapter 22 “Buildings and Building Regulations” Article VII.7 “Energy Conservation Code” of the Code of Ordinances of the City of Farmers Branch, Texas, is amended by adding Appendix RB “Solar-Ready Provisions – Detached One- and Two-Family Dwellings and Townhouses” and Appendix CB “Solar-Ready Zone—Commercial” to the end of Section 22-241 “Local Amendments to the International Energy Conservation Code” to read as follows:

## **APPENDIX RB SOLAR-READY PROVISIONS – DETACHED ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES**

### **User note:**

*About this appendix: Harnessing the heat or radiation from the sun's rays is a method to reduce the energy consumption of a building. Appendix RB does not require solar systems to be installed for a building.*

### **SECTION RB101**

#### **SCOPE**

#### **RB101.1 General.**

These provisions shall be applicable for new construction where solar-ready provisions are required.

### **SECTION RB102**

#### **GENERAL DEFINITION**

**SOLAR-READY ZONE.** A section or sections of the roof or building overhang designated and reserved for the future installation of a solar photovoltaic or solar thermal system.

### **SECTION RB103**

#### **SOLAR-READY ZONE**

#### **RB103.1 General.**

New detached one- and two-family dwellings, and townhouses with not less than 600 square feet (55.74 m<sup>2</sup>) of roof area oriented between 110 degrees and 270 degrees of true north shall comply with Sections RB103.2 through RB103.8.

#### **Exceptions:**

1. New residential buildings with a permanently installed on-site renewable energy system.
2. A building where all areas of the roof that would otherwise meet the requirements of Section RB103 are in full or partial shade for more than 70 percent of daylight hours annually.

#### **RB103.2 Construction document requirements for solar-ready zone.**

Construction documents shall indicate the solar-ready zone.

#### **RB103.3 Solar-ready zone area**

The total solar-ready zone area shall be not less than 300 square feet (27.87 m<sup>2</sup>) exclusive of mandatory access or setback areas as required by the *International Fire Code*. New townhouses three stories or less in height above grade plane and with a total floor area less than or equal to 2,000 square feet (185.8 m<sup>2</sup>) per dwelling shall have a solar-ready zone area of not less than 150 square feet (13.94 m<sup>2</sup>). The solar-ready zone shall be composed

of areas not less than 5 feet (1524 mm) in width and not less than 80 square feet (7.44 m<sup>2</sup>) exclusive of access or setback areas as required by the *International Fire Code*.

**RB103.4 Obstructions.**

Solar-ready zones shall be free from obstructions, including but not limited to vents, chimneys, and roof mounted equipment.

**RB103.5 Shading.**

The solar-ready zone shall be set back from any existing or new permanently affixed object on the building or site that is located south, east or west of the solar zone a distance not less than two times the object's height above the nearest point on the roof surface. Such objects include, but are not limited to, taller portions of the building itself, parapets, chimneys, antennas, signage, rooftop equipment, trees and roof plantings.

**RB 103.6 Electrical service reserved space.**

The main electrical service panel shall have a reserved space to allow installation of a dual pole circuit breaker for future solar electric installation and shall be labeled "For Future Solar Electric." The reserved space shall be positioned at the opposite (load) end from the input feeder location or main circuit location.

**RB103.7 Construction documentation certificate.**

A permanent certificate, indicating the solar-ready zone and other requirements of this section, shall be posted near the electrical distribution panel, water heater or other conspicuous location by the builder or registered design professional.

**APPENDIX CB SOLAR-READY ZONE--COMMERCIAL**

**User note:**

*About this appendix: Appendix CB is intended to encourage the installation of renewable energy systems by preparing buildings for the future installation of solar energy equipment, piping and wiring.*

**SECTION CB101**

**SCOPE**

**CB101.1 General.**

These provisions shall be applicable for new construction where solar-ready provisions are required.

**SECTION CB102**

**GENERAL DEFINITION**

**SOLAR-READY ZONE.** A section or sections of the roof or building overhang designated and reserved for the future installation of a solar photovoltaic or solar thermal system.

## **SECTION CB103**

### **SOLAR-READY ZONE**

#### **CB103.1 General.**

A solar-ready zone shall be located on the roof of buildings that are five stories or less in height above grade plane, and are oriented between 110 degrees and 270 degrees of true north or have low-slope roofs. Solar-ready zones shall comply with Sections CB103.2 through CB103.9.

#### **Exceptions:**

1. A building with a permanently installed, on-site renewable energy system.
2. A building with a solar-ready zone that is shaded for more than 70 percent of daylight hours annually.
3. A building where the licensed design professional certifies that the incident solar radiation available to the building is not suitable for a solar-ready zone.
4. A building where the licensed design professional certifies that the solar zone area required by Section CB103.3 cannot be met because of extensive rooftop equipment, skylights, vegetative roof areas or other obstructions.

#### **CB103.2 Construction document requirements for solar-ready zone.**

Construction documents shall indicate the solar-ready zone.

#### **CB103.3 Solar-ready zone area.**

The total solar-ready zone area shall be not less than 40 percent of the roof area calculated as the horizontally projected gross roof area less the area covered by skylights, occupied roof decks, vegetative roof areas and mandatory access or set back areas as required by the *International Fire Code*. The solar-ready zone shall be a single area or smaller, separated sub-zone areas. Each sub-zone shall be not less than 5 feet (1524 mm) in width in the narrowest dimension.

#### **CB103.4 Obstructions.**

Solar-ready zones shall be free from obstructions, including pipes, vents, ducts, HVAC equipment, skylights and roof mounted equipment.

#### **CB103.5 Roof loads and documentation.**

A collateral dead load of not less than 5 pounds per square foot (5psf) (24.41 kg/m<sup>2</sup>) shall be included in the gravity and lateral design calculations for the solar-ready zone. The structural design loads for roof dead load and roof live load shall be indicated on the construction documents.

#### **CB103.6 Interconnection pathway.**

Construction documents shall indicate pathways for routing of conduit or piping from the solar-ready zone to the electrical service panel and electrical energy storage system area or service hot water system.

**CB 103.7 Electrical energy storage system-ready area.**

The floor area any electrical energy storage system-ready area shall be not less than 2 feet (610 mm) in one dimension and 4 feet (1219 mm) in another dimension, and located in accordance with Section 1207 of *International Fire Code*. The location and layout diagram of the electrical energy storage system-ready area shall be indicated on the construction documents.

**CB 103.8 Electrical service reserved space.**

The main electrical service panel shall have a reserved space to allow installation of a dual-pole circuit breaker for future solar electric and a dual-pole circuit breaker for any future electrical energy storage system installation. These spaces shall be labeled “For Future Solar Electric and Storage.” The reserved spaces shall be positioned at the end of the panel that is opposite from the panel supply conductor connection.

**CB103.9 Construction documentation certificate.**

A permanent certificate, indicating the solar-ready zone and other requirements of this section, shall be posted near the electrical distribution panel, water heater or other conspicuous location by the builder or registered design professional.

**SECTION 2.** Except as provided in Section 1 of this Ordinance, all provisions of the Ordinances of the City of Farmers Branch, Texas, in conflict with the provisions of this ordinance be, and the same are hereby, repealed, and all other provisions of the Ordinances of the City not in conflict with the provisions of this ordinance shall remain in full force and effect.

**SECTION 3.** An offense committed before the effective date of this ordinance is governed by prior law and the provisions of the Code of Ordinances, as amended, in effect when the offense was committed, and the former law is continued in effect for this purpose.

**SECTION 4.** Should any sentence, paragraph, subdivision, clause, phrase or section of this Ordinance be adjudged or held to be unconstitutional, illegal or invalid, the same shall not affect the validity of this Ordinance as a whole, or any part or provision thereof other than the part so decided to be invalid, illegal or unconstitutional, and shall not affect the validity of the Ordinance as a whole.

**SECTION 5.** Any person, firm or corporation violating any of the provisions or terms of this Ordinance shall be punished by a fine not to exceed the sum of Two Thousand Dollars (\$2,000) for each offense; and each and every day such violation shall continue shall be deemed to constitute a separate offense as set forth in Section 1-14 of the Code of Ordinances.

**SECTION 6.** This ordinance shall take effect on \_\_\_\_\_, 2023, following its passage and publication in accordance with the provisions of the charter and state law.

**PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF FARMERS  
BRANCH, TEXAS, THIS \_\_\_ DAY OF \_\_\_\_\_ 2023.**

**ATTEST:**

**APPROVED:**

\_\_\_\_\_  
Stacy Henderson, City Secretary

\_\_\_\_\_  
\_\_\_\_\_, Mayor

**APPROVED AS TO FORM:**

\_\_\_\_\_  
Peter G. Smith, City Attorney  
(kbl:4/20/2023:134614)