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**CITY OF SANTA FE, NEW MEXICO**

**BILL NO. 2021-5**

**INTRODUCED BY:**

Councilor Jamie Cassutt-Sanchez

Councilor Roman “Tiger” Abeyta

Councilor Renee Villarreal

**AN ORDINANCE**

**AMENDING SECTION 7-1.1 SFCC 1987 TO ADOPT THE NEWEST VERSION OF THE  
INTERNATIONAL ENERGY CONSERVATION CODE AS ADOPTED AND AMENDED  
BY THE STATE OF NEW MEXICO CONSTRUCTION INDUSTRIES DIVISION; AND  
AMENDING SECTION 7-4.2 SFCC 1987, CITY OF SANTA FE GREEN  
BUILDING CODE, TO UPDATE CODE REFERENCES IN CONJUNCTION  
WITH THE ADOPTION OF THE 2018 INTERNATIONAL ENERGY  
CONSERVATION CODE AS ADOPTED AND AMENDED BY THE STATE OF  
NEW MEXICO CONSTRUCTION INDUSTRIES DIVISION.**

**BE IT ORDAINED BY THE GOVERNING BODY OF THE CITY OF SANTA FE:**

**Section 1.      Section 7-1.1 of SFCC 1987 (being Ord. No. 2008-1, § 3, as amended)  
is amended to read:**

**7-1.1    Adoption of codes.**

A.      For the purpose of regulating the erection, construction, enlargement, alteration,  
repair, moving, removal, conversion, demolition, occupancy, equipment, use, height, area,

1 unobstructed maintenance of required yards, and maintenance of buildings or structures within  
2 the planning and platting jurisdiction of the city, the following provisions and codes are adopted  
3 by reference and incorporated as fully as if set out herein unless otherwise amended by the city:

4 (1) Section 14.5.1 New Mexico Administrative Code (NMAC) General  
5 Provisions;

6 (2) Section 14.5.2 New Mexico Administrative Code (NMAC) Permits;

7 (3) Section 14.5.3 New Mexico Administrative Code (NMAC) Inspections;

8 (4) 2015 New Mexico Commercial Building Code adopted by the state of  
9 New Mexico construction industries division (NMAC 14.7.2), as may be amended from  
10 time to time, which adopts and amends the International Building Code (IBC);

11 (5) 2015 New Mexico Residential Building Code adopted by the state of  
12 New Mexico construction industries division (NMAC 14.7.3), as may be amended from  
13 time to time, which adopts and amends the International Residential Code (IRC);

14 (6) 2015 New Mexico Earthen Building Materials Code adopted by the state  
15 of New Mexico construction industries division (NMAC 14.7.4), as may be amended  
16 from time to time;

17 (7) ~~[2009]~~ 2018 New Mexico Energy Conservation Code adopted by the  
18 state of New Mexico construction industries division (NMAC 14.7.6, residential code;  
19 and NMAC 14.7.9, commercial code), as may be amended from time to time, which  
20 adopts and amends the International Energy Conservation Code (IECC);

21 (8) 2015 New Mexico Existing Building Code adopted by the state of New  
22 Mexico construction industries division (NMAC 14.7.7), as may be amended from time  
23 to time, which adopts and amends the International Existing Building Code (IEBC);

24 (9) 2015 New Mexico Historic Earthen Buildings code adopted by the state  
25 of New Mexico construction industries division (NMAC 14.7.8), as may be amended

1 from time to time;

2 (10) 2015 New Mexico Plumbing Code adopted by the state of New Mexico  
3 construction industries division (NMAC 14.8.2), as may be amended from time to time,  
4 which adopts and amends the Uniform Plumbing Code (UPC), and as further amended  
5 in Sections 7-1.8 and 7-1.9 SFCC 1987;

6 (11) 2012 New Mexico Swimming Pool, Spa, and Hot Tub Code adopted by  
7 the state of New Mexico construction industries division (NMAC 14.8.3), as may be  
8 amended from time to time, which adopts and amends the Uniform Swimming Pool, Spa,  
9 and Hot Tub Code (USPSHTC);

10 (12) 2015 New Mexico Mechanical Code adopted by the state of New Mexico  
11 construction industries division (NMAC 14.9.2), as may be amended from time to time,  
12 which adopts and amends the Uniform Mechanical Code (UMC);

13 (13) 2012 New Mexico Solar Energy Code adopted by the state of New  
14 Mexico construction industries division (NMAC 14.9.6), as may be amended from time  
15 to time, which adopts and amends the Uniform Solar Energy Code (USEC);

16 (14) 2017 New Mexico Electrical Code adopted by the state of New Mexico  
17 construction industries division (NMAC 14.10.4), as may be amended from time to time,  
18 which adopts and amends the National Electrical Code (NEC); and

19 (15) 2012 New Mexico Electrical Safety Code adopted by the state of New  
20 Mexico construction industries division (NMAC 14.10.5), as may be amended from time  
21 to time, which adopts and amends the National Electrical Safety Code (NESC).

22 B. Any person violating or failing, neglecting, or refusing to comply with the  
23 provisions of the codes set forth in paragraph A. above or the other requirements of this chapter  
24 shall be subject to the enforcement provisions set forth in Sections 1-3 and 14-11 SFCC 1987.

1 C. A copy of the codes set forth in paragraph A. and this chapter shall be kept on  
2 file in the office of building inspections and shall be available for public inspection at all  
3 reasonable times.

4 **Section 2. Section 7-4.2 of SFCC 1987 (being Ord. No. 2009-9, § 3, as amended)**  
5 **is amended to read:**

6 **7-4.2 Residential Green Building Code.**

7 A. *Purpose.* The purpose of this section is to:

8 (1) Provide criteria for rating the environmental performance of single-  
9 family residential construction and site design practices and provide guidelines for  
10 documentation that demonstrates conformance with those criteria;

11 (2) Encourage cost-effective and sustainable building methods by  
12 encouraging conservation of fossil fuels, water and other natural resources, reduction of  
13 greenhouse gas emissions, recycling of construction materials, reducing solid waste and  
14 improving indoor air quality;

15 (3) Identify the specific requirements for complying with the requirements  
16 of the Residential Green Building Code; and

17 (4) Encourage more aggressive green building development through  
18 incentives and rewards to work toward the goals of the 2030 challenge as adopted by the  
19 governing body by Resolution No. 2006-55.

20 B. *Residential Green Building Code; Applicability.*

21 (1) The provisions of the Santa Fe Residential Green Building Code shall  
22 apply to:

23 (a) New single-family, attached and detached, residential units as  
24 defined by the 2015 International Residential Code or its successor as adopted  
25 by the city;

1 (b) Modular homes which are built off-site and brought onto the site,  
2 provided that the land use director may approve exceptions to specific code  
3 requirements upon a showing by the applicant or modular home supplier that  
4 compliance would cause undue burden; and

5 (c) Residential additions that provide for living, sleeping, eating,  
6 cooking and sanitation. Only the addition is subject to the code provisions, not  
7 the existing structure.

8 (2) Upon request of an applicant, applications for permits submitted prior to  
9 March 1, 2017, may be issued in compliance with the prior version of Residential Green  
10 Building Code. The permit fee in paragraph F of this subsection shall apply.

11 C. *Relationship to Other Codes; Compliance; Exceptions.*

12 (1) The requirements of this section are in addition to and do not replace the  
13 requirements of other sections of this chapter and other chapters of this Code, including  
14 without limitation, all of the life safety codes, historic preservation ordinance, land  
15 development code and adopted building codes and development standards.

16 (2) All submittals and approvals required under this Residential Green  
17 Building Code shall be rendered in conjunction with a residential building permit  
18 application and related field inspections. The application shall be on a form approved by  
19 the land use director. The applicant shall demonstrate compliance with all of the  
20 provisions of this section prior to the issuance of a certificate of occupancy by the land  
21 use director.

22 (3) For a structure located in an historic overlay district where it can be  
23 demonstrated that strict compliance with the requirements of this section cannot be  
24 achieved without an exception to the historic overlay district requirements, the  
25 requirements of this section may be adjusted so as to resolve the conflict between the two

(2) sections of the Code.

D. *Administration.*

(1) The land use director shall:

(a) Administer and enforce the Residential Green Building Code;  
and

(b) Require an applicant for a building permit, to prepare and submit Residential Green Building Code documentation to the green code administrator or designee to assure compliance with this section.

E. *Requirements.*

(1) *Energy performance levels.* A documented analysis of the building's energy performance using software in accordance with ~~[2009 ICC IECC]~~ 2018 International Code Council International Energy Conservation Code ["IECC"] Section 405 is required. A projected Home Energy Rating System ("HERS") index, or equivalent, shall be submitted as part of a building permit application and a report of the confirmed HERS index, or equivalent, meeting the standards of this section is required prior to issuance of a certificate of occupancy. The required HERS index for residences up to and including three thousand (3,000) square feet of conditioned space shall be 65 until January 1, 2018, when it shall be reduced to 60. The required HERS index for residences over three thousand (3,000) feet of conditioned space shall be reduced by one point for each one hundred (100) square feet of conditioned space over three thousand (3,000), or pro-rata portion thereof, until the required HERS index is zero and shall be zero for those and larger residences.

(2) *HERS raters.* HERS raters shall be certified to conduct HERS analysis by passing educational courses and obtaining continuing education credits as required by the land use director. In addition HERS raters shall:

1 (a) Confirm ventilation rates of the ventilation equipment used to  
2 satisfy the required house ventilation and report the findings to the planning and  
3 land use department;

4 (b) Supply a report that includes the building components  
5 contributing to achievement of the required HERS index to be compared to the  
6 building plans submitted for a building permit. Reports approved to supply this  
7 information shall be approved by the land use director; and

8 (c) Supply an estimation of the greenhouse gas emissions avoided  
9 and the electricity and natural gas usage avoided when submitting the final or  
10 confirmed HERS index. Reports approved to supply this information shall be  
11 approved by the land use director.

12 (3) *Building envelope insulation values.* Building insulation levels shall  
13 meet the requirements of overall UA for ~~[2015]~~ 2018 IECC. A report of compliance shall  
14 be provided to the city as part of a building permit application. Reports approved to  
15 supply this information shall be approved by the land use director.

16 (4) *Building thermal envelope insulation confirmation.* The insulation  
17 installers shall provide a certification complying with a template to be provided by the  
18 planning and land use department listing the type, manufacturer and R-value of insulation  
19 installed in each element of the building thermal envelope. For blown or sprayed  
20 insulations (fiberglass and cellulose), the initial installed thickness, settled thickness,  
21 settled R-value, installed density, coverage area and number of bags installed shall be  
22 listed on the certification. For insulated siding, the R-value shall be listed on the product's  
23 package and shall be listed on the certification. The insulation installer shall sign, date  
24 and provide the certification in a conspicuous location on the job site. (Consistent with  
25 2015 IRC Section N1101.10.1.)

1                   (5)     *Air sealing and insulation.* The air barrier and insulation installation  
2 criteria from Table [402.4.2] 402.4.1.1 from the [~~2009 International Energy Conservation~~  
3 ~~Code~~] 2018 IECC shall be visually inspected pursuant to Section [402.4.2.2] 402.4.1.1  
4 whether or not the testing option from Section [402.4.2.1] 402.4.1.2 has been achieved.  
5 Insulation values shall be verified to match those used to obtain the required HERS  
6 rating.

7                   (6)     *Duct installation.* The installation instructions for heating, ventilation  
8 and air conditioning equipment shall be made available to the inspector conducting the  
9 duct installation inspection to ensure ducting meets the manufacture's specifications. It  
10 shall be located on the equipment or in a conspicuous location adjacent to the equipment  
11 to be easily located by the inspector.

12                   (7)     *Duct leakage.* Duct tightness shall be verified in accordance with [~~2009~~]  
13 2018 IECC section [403.2.2] 403.3.4 and shall not exceed six (6) percent of total fan  
14 flow.

15                   (8)     *Duct protection during construction.* All boots, ducts and ventilation  
16 openings shall be sealed during construction to prevent dust and debris from entering  
17 them and shall remain sealed until they are put into operation.

18                   (9)     *Water conservation levels.* Water conservation features are implemented  
19 to achieve conservation performance shall be required. A documented analysis using the  
20 water efficiency rating score ("WERS") tool showing a maximum score of 70 shall be  
21 submitted to the planning and land use department as part of a building permit application  
22 and a report of the confirmed rating with a maximum score of 70 shall be submitted to  
23 the planning and land use department prior to receiving a certificate of occupancy.

24                   (10)    *Whole-house mechanical ventilation requirement.* Mechanical  
25 ventilation shall be required at a rate based on the following formula: required cubic feet



per minute of ventilation = (total heated floor area × .01) + ((number of bedrooms + 1) × 7.5).

(11) *Heating and cooling equipment sizing and system design.*

(a) Heating and cooling equipment and appliances shall be sized in accordance with Air Conditioning Contractors of America (“ACCA”) Manual S or other approved sizing methodologies based on building loads calculated in accordance with ACCA Manual J (version 8 or higher) or other approved heating and cooling methodologies.

(b) Duct systems serving heating, cooling, and ventilation equipment shall be designed and installed in accordance with ACCA Manual D, the manufacturer's installation instructions or other approved methodologies.

(c) Radiant hydronic systems shall be designed using manufacturer's recommendations, mechanical engineer design specifications or other approved hydronic heating design methods, and shall include equipment specifications, the number of zones, pipe diameter, length, and flow rate for each zone.

(d) ACCA Manual J and S, and Manual D and radiant design reports, as applicable, along with an AHRI (Air-Conditioning, Heating and Refrigeration Institute) certificate or equivalent mechanical equipment certification shall be submitted to the planning and land use department either at time of building permit application or no later than the completion of rough framing. Duct design reports shall be submitted before ducts are installed. Radiant hydronic system in concrete shall be submitted before installation.

(e) All HVAC documents submitted are subject to review and approval by the land use director before installation. Other approved HVAC design methodologies shall be approved by the land use director.

(12) Installation of a radon mitigation system consistent with Appendix F of the 2015 International Residential Building Code.

(13) *Disclosure of building performance and homeowner's manual.* The following items shall be documented and included in a homeowners manual provided to the first homeowner and available for review for homes that are for sale on forms provided by the land use director:

- (a) The confirmed HERS index;
- (b) The blower door result at ACH 50;
- (c) The required amount of ventilation and the archived ventilation rate in air changes per hour;
- (d) The type of ventilation system used;
- (e) The percentage better than the UA is above the ~~[2015]~~ 2018 IECC maximum requirement;
- (f) The confirmed WERS;
- (g) A diagram showing the location of shut off valves for water, electricity and any combustions fuels (natural gas or propane) with labels in English and Spanish;
- (h) The manuals for all major equipment and fixtures in English and in Spanish if available; and
- (i) All other homeowner manual items available from the planning and land use department at the time of certificate of occupancy for that purpose.

F. *Permit Fee.*

~~[(4)]~~ Applicants for residential building permits shall pay a green building code permit fee of one hundred dollars (\$100.00) for each residential unit, subject to the provisions for fee waivers under subsection 14-8.11(G)(2)(a).

1 G. *Effective Date.*

2 [(4)] Section 7-4.1 SFCC 1987 shall be effective July 1, 2009.

3 APPROVED AS TO FORM:

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6 ERIN K. McSHERRY, CITY ATTORNEY

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25 *Legislation/2021/Bills/Energy Conservation Code and Green Building Code Updates*