City Code – Title 9: Building Codes and Regulations / Chapter 9

Energy Conservation Code (Draft 7/14/20)

Sections

- 9-9-~~19~~24: ~~Iecc~~ IECC Energy Code Amendment, Table R402.1.2, Insulation And Fenestration Requirements By Component, Add Footnotes J And K
- 9-9-25: IECC Energy Code Amendment, Table R402.1.4, Equivalent U-Factors
- ~~9-9-20: Iecc Energy Code Amendment, Table R402.4.1.1, Air Barrier And Insulation Installation~~
- 9-9-~~21~~26: ~~Iecc~~ IECC Energy Code Amendment, Section R402.4.1.2, Testing
- 9-9-~~22~~27: ~~Iecc~~ IECC Energy Code Amendment, Add Section R402.6, Residential Log Home Thermal Envelope
- 9-9-~~23~~28: ~~Iecc~~ IECC Energy Code Amendment, Add Table R402.6, Log Home Prescriptive Thermal Envelope Requirements By Component
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- ~~9-9-31: Iecc Energy Code Amendment, Add Section R406.6.4, Specific Approval~~
- ~~9-9-32: Iecc Energy Code Amendment, Add Section R406.6.5, Input Values~~
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- ~~9-9-34: Iecc Energy Code Amendment, Chapter 6 Referenced Standards~~

9-9-1: Purpose

The purpose of this ~~c~~Chapter is to establish minimum regulations for energy-efficient buildings using prescriptive, ~~and~~ performance-based, or energy rating index compliance alternative provisions. The provisions of this code shall regulate the design and construction of building envelopes for adequate thermal resistance and low air leakage, including the design and selection of mechanical systems, service water-heating systems, pools and spas, electrical equipment, power, and lighting systems in order to enhance the efficient use and conservation of energy in new and existing building construction. (Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-2: Code Adopted

All the rules, regulations, and ordinances relating and applying to the design, construction, quality of materials, erection, installation, alteration, repair, location, relocation, replacement, addition to, use or maintenance of the building envelope, building mechanical systems, service water-heating systems, pools and spas, electrical equipment, power, and lighting systems, established by the ~~2015~~ 2018 edition of the *International Energy Conservation Code* (IECC), published under the authority of the International Code Council, Inc., is ~~ratified and~~ hereby adopted as the Energy Conservation Code of Boise City as amended, and except to the extent that those said rules and regulations are hereby changed, altered, or amended by this code. One copy of the ~~2015~~ 2018 edition of the *International Energy Conservation Code* shall be filed for use and examination by the public in the Office of the City Clerk. All provisions in this ~~c~~Chapter shall be effective ~~as of~~ January 1, ~~2018~~ 2021. (Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-3: ~~Iecc~~ IECC Energy Code Amendment, Section C101.1, Title

C101.1 Title. ~~The 2015 Edition of the *International Energy Conservation Code*, and amendments pursuant to this ordinance,~~ Boise City Code Title 9, Chapter 9 shall be known as the Energy Conservation Code of Boise City~~.~~. ~~The Energy Conservation Code of Boise City~~ and hereinafter may be cited or referred to ~~in~~ as "this ~~c~~Chapter" and ~~as the~~ "this code."
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-4: ~~Iecc~~ IECC Energy Code Amendment, Add Section C101.5.2, Industrial, Electronic, And Manufacturing Equipment

C101.5.2 Industrial, electronic and manufacturing equipment. Buildings or portions thereof that are heated or cooled exclusively to maintain a required operating temperature for industrial, electronic, or manufacturing equipment shall be exempt from the provisions of this code. Such buildings or portions thereof shall be separated from connected conditioned space by building thermal envelope assemblies that comply with this code. If this condition or use is abandoned, then that building or portion thereof shall be subject to the requirements of this code.
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-5: ~~Iecc~~ IECC Energy Code Amendment, Section C10~~7~~4.2, Schedule Of Permit Fees

~~Section C107 shall be deleted in its entirety.~~

C104.2 Schedule of permit fees. The fees for residential energy code inspection(s), when applicable under the commercial provisions, reinspections, after hours inspections, or additional plan review after the third review or for modification changes, additions, or revisions after permit issuance, verifying compliance with the Energy Conservation Code of Boise City, shall be assessed in accordance with the provisions of the Boise City Building Code Fee Schedule as adopted by the City Council, which will be kept on file at the Planning and Development Services permit counter, Boise City Clerk's office, or on the Planning and Development Services website. All fees shall be reviewed by the Building

Code Board prior to adoption by City Council.
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-6: IECC Energy Code Amendment, Section C104.5, Refunds

C104.5 Refunds. Any fee refunds shall comply with the provisions of Section 109.6 of the *International Building Code* as adopted by the Building Code of Boise City or Section R108.5 of the *International Residential Code* as adopted by the One-And-Two-Family Dwelling Building Code of Boise City, as applicable.

9-9-~~6~~7: ~~Iecc~~ IECC Energy Code Amendment, Section C108, Stop Work Order

Section C108 shall be repealed in its entirety and replaced with the following:

C108 Stop work order. Whenever the code official, or designee, identifies any work regulated by the Energy Conservation Code of Boise City being performed in a manner contrary to the provisions of this code or in a dangerous or unsafe manner, ~~then~~ the ~~building~~ code official is authorized to issue a stop work order in accordance with Section 115 of the *International Building Code* as adopted by the Building Code of Boise City or Section R114 of the *International Residential Code* as adopted by the One-And-Two-Family Dwelling Building Code of Boise City.
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-~~7~~8: ~~Iecc~~ IECC Energy Code Amendment, Section C109, Board Of Appeals~~, Appeal~~ Process

Section C109 shall be repealed in its entirety and replaced with the following:
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

C109 Board of appeals process. Any person, firm, association, or corporation desiring to appeal an order, decision, or determination made by the ~~building~~ code official with respect to an application or interpretation of this code shall file a written appeal with the code official within ten (10) calendar days from the date the order, decision, or determination was issued. The party appealing a decision of the City shall include payment of an appeal fee, in the amount ~~established by~~ specified in the Boise City Building Code Fee Schedule as adopted by the City Council, ~~and listed on the most current fee schedule~~ at time of filing the written appeal request. In the event the appealing party prevails, then the appeal fee shall be returned to the ~~a~~Appellant.
(Ord. 43-17, 12-19-2017, eff. 1-1-2018; amd. 2019 Code)

Recognizing that the Energy Conservation Code of Boise City is multi-disciplinary, the ~~building~~ code official shall schedule the appeal before the appeals board of the most relevant discipline to the issue being appealed. Depending upon the issue raised on appeal, an energy conservation code appeal may be heard by the Building Code Board of Appeals, the Electrical Board ~~of Appeal~~, or the Plumbing, Mechanical, ~~or~~ and Fuel Gas Board as established by Boise City Code. Ten (10) calendar days prior to the appeal hearing, the appellant shall be notified as to which board will hear the appeal and will be ~~given a copy of~~ referenced to the applicable ordinance governing appeals to that

board. The ordinance which governs the relevant board shall govern the conduct and procedure of the hearing. The hearing shall be held within thirty (30) calendar days of receipt of the notice of appeal or as otherwise agreed upon by the parties to the appeal and the City. Any order, decision, or ruling of the board of appeals may be appealed by filing notice in writing to the City Council within ten (10) calendar days of such order, decision or ruling.
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-~~8~~9: ~~Iecc~~ IECC Energy Code Amendment, Add Section C110, Violations

C110 Violations. Violations of any provision of the Energy Conservation Code of Boise City shall be subject to ~~enforcement~~ provisions under Section 114 of the *International Building Code* as adopted by the Building Code of Boise City or Section R113 of the *International Residential Code* as adopted by the One-And-Two-Family Dwelling Building Code of Boise City.
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-~~9~~10: ~~Iecc~~ IECC Energy Code Amendment, Section C201.3, Terms Defined In Other Codes

C201.3 Terms defined in other codes. Terms that are not defined in this code but are defined in the applicable editions ~~in~~ of the *International Building Code*, *International Residential Code*, *International Existing Building Code*, *National Electrical Code*, *International Fire Code*, *International Fuel Gas Code*, *International Mechanical Code*, or the *Idaho State Plumbing Code*, such terms shall have the meanings ascribed to them as in those codes respectively.
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-~~10~~11: ~~Iecc~~ IECC Energy Code Amendment, Section C202, General Definitions, Code Official

CODE OFFICIAL. The *building official* as defined and established by the *International Building Code* as incorporated into the Building Code of Boise City, and as defined and established by the *International Residential Code* as incorporated into the One-And-Two-Family Dwelling Building Code of Boise City, shall be referred to as the *code official* under this code. The code official shall be responsible for administering and enforcing this code.
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-12: IECC Energy Code Amendment, Section C402.5, Air Leakage-Thermal Envelope (Mandatory), Add Exception

Add the following Exception to Section C402.5, Air Leakage-Thermal Envelope (Mandatory):

Exception: For buildings having over fifty thousand (50,000) square feet of conditioned floor area, air leakage testing shall be permitted to be conducted on less than the whole building, provided the following portions of the building are tested and their measured air leakage is area-weighted by the surface areas of the building envelope:

1. The entire floor area of all stories that have any spaces directly under a roof.

2. The entire floor area of all stories that have a building entrance or loading dock.

3. Representative above-grade wall sections of the building totaling at least twenty-five percent (25%) of the above-grade wall area enclosing the remaining conditioned space. Floor area tested under items 1 and 2 of this Exception shall not be included in the twenty-five percent (25%) of above-grade wall sections tested under item 3 of this Exception.

9-9-~~11~~13: ~~Iecc~~ IECC Energy Code Amendment, Section C403.~~3~~5, Economizers (~~p~~Prescriptive), Add Exception ~~10~~ 7

Add~~ing e~~Exception number ~~10~~ seven (7) to section C403.~~3~~5, Economizers (Prescriptive) which shall read as follows:

~~10.~~ 7. Unusual outdoor air contaminate conditions - Systems requiring special outside air filtration and treatment for the reduction and treatment of unusual outdoor contaminants that make an air economizer infeasible.
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-14: IECC Energy Code Amendment, Table C404.5.1, Piping Volume And Maximum Piping Lengths

Repeal Table C404.5.1, Piping Volume and Maximum Piping Lengths and replace with the following:

TABLE C404.5.1
PIPING VOLUME AND MAXIMUM PIPING LENGTHS

Nominal Pipe Size (inches)	Volume (liquid ounces per foot length)	Maximum Piping Length (feet)	
		Public lavatory faucets	Other fixtures and appliances
5/8	2	7	32
3/4	3	5	21
7/8	4	N/A – non-standard size	16
1	5	3	13
1-1/4	8	2	8
1-1/2	11	1	6
2 or larger	18	1	4

For SI: 1 inch = 25.4 mm; 1 foot = 304.8 mm; 1 liquid ounce = 0.030 L; 1 gallon = 128 ounces

9-9-~~12~~15: ~~Iecc~~ IECC Energy Code Amendment, Section R101.1, Title

R101.1 Title. ~~The 2015 Edition of the International Energy Conservation Code, and amendments pursuant to this ordinance,~~ Boise City Code Title 9, Chapter 9 shall be known as the Energy Conservation Code of Boise City,~~. The Energy Conservation Code of Boise City~~ and hereinafter may be cited or referred to ~~in~~ as "this ~~c~~Chapter" and ~~as the~~ "this code."
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-~~13~~16: ~~Iecc~~ IECC Energy Code Amendment, Section ~~R107~~ R104.2, Schedule Of Permit Fees

~~Section R107 shall be repealed in its entirety and replaced as follows:~~

~~R107~~ **R104.2 Schedule of permit ~~F~~fees.** The fees for residential energy code inspection(s), reinspections, after hours inspections, or additional plan review after the third review or for modification changes, additions, or revisions after permit issuance, verifying compliance with the Energy Conservation Code of Boise City, shall be assessed in accordance with ~~Table No. 1-A of~~ the provisions of the Boise City Building Code Fee Schedule as adopted by the ~~in Boise~~ City Council, which will be kept on file at the Planning and Development Services permit counter, Boise City Clerk's office, or on the Planning and Development Services website. All fees shall be reviewed by the Building Code Board prior to adoption by City Council.
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-17: IECC Energy Code Amendment, Section R104.5, Refunds

R104.5 Refunds. Any fee refunds shall comply with the provisions of Section 109.6 of the *International Building Code* as adopted by the Building Code of Boise City or Section R108.5 of the *International Residential Code* as adopted by the One-And-Two-Family Dwelling Building Code of Boise City, as applicable.

9-9-~~14~~18: ~~Iecc~~ IECC Energy Code Amendment, Section R108, Stop Work Order

Section R108 shall be repealed in its entirety and replaced with the following:

R108 Stop work order. Whenever the code official, or designee, identifies any work regulated by the Energy Conservation Code of Boise City being performed in a manner contrary to the provisions of this code or in a dangerous or unsafe manner, ~~then~~ the ~~building~~ code official is authorized to issue a stop work order in accordance with Section 115 of the *International Building Code* as adopted by the Building Code of Boise City or Section R114 of the *International Residential Code* as adopted by the One-And-Two-Family Dwelling Building Code of Boise City.
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-~~15~~19: ~~Iecc~~ IECC Energy Code Amendment, Section R109, Board Of Appeals Process

Section R109 shall be repealed in its entirety and replaced with the following:
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

R109 Board of appeals process. Any person, firm, association, or corporation desiring to appeal an order, decision, or determination made by the ~~building~~ code official with respect to an application or interpretation of this code shall file a written appeal with the code official within ten (10) calendar days from the date the order, decision, or determination was issued. The party appealing a decision of the City shall include payment of an appeal fee, in an amount ~~established by~~ specified in the Boise City Building Code Fee Schedule as adopted by the City Council, ~~and listed on the most current fee schedule~~ at time of filing the written appeal request. In the event the appealing party prevails, then the appeal fee shall be returned to the ~~a~~Appellant.
(Ord. 43-17, 12-19-2017, eff. 1-1-2018; amd. 2019 Code)

Recognizing that the Energy Conservation Code of Boise City is multi-disciplinary, the ~~building~~ code official shall schedule the appeal before the appeals board of the most relevant discipline to the issue being appealed. Depending upon the issue raised on appeal, an energy conservation code appeal may be heard by the Building Code Board of Appeals, the Electrical Board ~~of Appeal~~, or the Plumbing, Mechanical, ~~or~~ and Fuel Gas Board as established by Boise City Code. Ten (10) calendar days prior to the appeal hearing, the appellant shall be notified as to which board will hear the appeal and will be ~~given a copy of~~ referenced to the applicable ordinance governing appeals to that board. The ordinance which governs the relevant board shall govern the conduct and procedure of the hearing. The hearing shall be held within thirty (30) calendar days of receipt of the notice of appeal or as otherwise agreed upon by the parties to the appeal and the City. Any order, decision, or ruling of the board of appeals may be appealed by filing notice in writing to the City Council within ten (10) calendar days of such order, decision or ruling.
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-~~16~~20: ~~Iecc~~ IECC Energy Code Amendment, Add Section R110, Violations

R110 Violations. Violations of any provision of the Energy Conservation Code of Boise City shall be subject to ~~enforcement~~ provisions under Section 114 of the *International Building Code* as adopted by the Building Code of Boise City or Section R113 of the *International Residential Code* as adopted by the One-And-Two-Family Dwelling Building Code of Boise City.
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-~~17~~21: ~~Iecc~~ IECC Energy Code Amendment, Section R201.3, Terms Defined In Other Codes

R201.3 Terms defined in other codes. Terms that are not defined in this code but are defined in the applicable editions ~~in~~ of the *International Building Code*, *International Residential Code*, *International Existing Building Code*, *National Electrical Code*,

International Fire Code, *International Fuel Gas Code*, *International Mechanical Code*, or the *Idaho State Plumbing Code*, such terms shall have the meanings ascribed to them as in those codes respectively.
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-~~18~~22: ~~Iecc~~ IECC Energy Code Amendment, Section R202, General Definitions, Code Official

CODE OFFICIAL. The *building official* as defined and established by the *International Building Code* as incorporated into the Building Code of Boise City, and as defined and established by the *International Residential Code* as incorporated into the One-And-Two-Family Dwelling Building Code of Boise City, shall be referred to as the *code official* under this code. The code official shall be responsible for administering and enforcing this code.
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-23: IECC Energy Code Amendment, Table R402.1.2, Insulation And Fenestration Requirements By Component

Repeal the row in Table R402.1.2 for climate zones "5 and Marine 4" and replace with the following:

TABLE R402.1.2
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT[a, j]

Climate Zone	Fenestration U-Factor[b]	Skylight[b] U-Factor	Glazed Fenestration SHGC[b,e]	Ceiling R-Value[k]	Wood Frame Wall R-Value	Mass Wall R-Value[i]	Floor R-Value	Basement[c] Wall R-Value	Slab[d] R-Value & Depth	Crawl-Space[c] Wall R-Value
5	0.32	0.55	NR	49	20 or 13+5[h]	13/17	30[g]	15/19	10, 2 ft	15/19

Footnotes published underneath Table R402.1.2 in the code are applicable.

9-9-~~19~~24: ~~Iecc~~ IECC Energy Code Amendment, Table R402.1.2, Insulation And Fenestration Requirements By Component, Add Footnotes J And K

Add footnote j to the title of table R402.1.2 - Insulation and Fenestration Requirements by Component. Add footnote j underneath table R402.1.2 after footnote i to read as follows:
j. For residential log home building thermal envelope construction requirements see section R402.6.
Add footnote k to the Ceiling R-Value header of table R402.1.2, and below table R402.1.2 to read as follows:
k. The Ceiling R-Value in Climate Zone 5 may be reduced to R-38 when the Wood Frame Wall R-Value is increased to R-21 and the Fenestration U-Factor is reduced to 0.31.
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-25: IECC Energy Code Amendment, Table R402.1.4, Equivalent U-Factors

Repeal the row in Table R402.1.4 for climate zones "5 and Marine 4" and replace with the following:

TABLE R402.1.4
EQUIVALENT U-FACTORS[a]

Climate Zone	Fenestration U-Factor	Skylight U-Factor	Ceiling U-Factor	Frame Wall U-Factor	Mass Wall U-Factor[b]	Floor U-Factor	Basement Wall U-Factor	Crawl-Space Wall U-Factor
5	0.32	0.55	0.030	0.060	0.082	0.033	0.050	0.055

Footnotes published underneath Table R402.1.4 in the code are applicable.

~~**9-9-20: Iecc Energy Code Amendment, Table R402.4.1.1, Air Barrier And Insulation Installation**~~

~~Add the criteria requirement for the "fireplace" component of table R402.4.1.1 Air Barrier and Insulation Installation as follows:~~

~~**TABLE R402.4.1.1 (N1102.4.1.1)**~~
~~**AIR BARRIER AND INSULATION INSTALLATION**~~

~~COMPONENT~~	~~CRITERIA[a]~~
~~Fireplace~~	~~An air barrier shall be installed on fireplace walls.~~

~~(Ord. 43-17, 12-19-2017, eff. 1-1-2018)~~

9-9-~~21~~26: ~~Iecc~~ IECC Energy Code Amendment, Section R402.4.1.2, Testing

R402.4.1.2 Testing. The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding five (5) air changes per hour in Climate Zones 1 and 2, and four (4) air changes per hour in Climate Zones 3 through 8. Testing shall be conducted in accordance with ~~ANSI/~~RESNET/ICC 380, ASTM E779, or ASTM E1827 and reported at a pressure of 0.2 inches w.g. (50 Pascals). Where required by the *code official,* testing shall be conducted by an *approved* third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the *code official.* Testing shall be performed at any time after creation of all penetrations of the *building thermal envelope.*

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed.

2. Dampers shall be closed, but not sealed, including exhaust, intake, makeup air, backdraft and flue dampers.

3. Interior doors shall be open.

4. Exterior openings for continuous ventilation systems and heat recovery ventilators shall be closed and sealed.

5. Heating and cooling system(s) shall be turned off.

6. HVAC ducts shall not be sealed.

7. Supply and return registers shall not be sealed.

(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-~~22~~27: ~~Iecc~~ IECC Energy Code Amendment, Add Section R402.6, Residential Log Home Thermal Envelope

R402.6 Residential ~~L~~log ~~H~~home ~~T~~thermal ~~E~~envelope. Residential log home construction shall comply with sections R401 (General), R402.4 (Air Leakage), R402.5 (Maximum Fenestration U-Factor and SHGC), R403.1 (Controls), ~~R403.3.2 (Sealing), R403.3.5 (Building Cavities), sections R403.4 through R403.11 (referred to as~~ the mandatory sections of Sections R403.3 through R403.9 ~~provisions)~~, Section R404 (Electrical Power and Lighting Systems), and either ~~subsection~~ item i., ii., or iii. as follows:

i. Sections R402.2 through R402.3, R403.3.1 (Insulation), R404.1 (Lighting equipment), and Table R402.6 (Log Home Prescriptive Thermal Envelope Requirements by Component);

ii. Section R405 (Simulated Performance Alternative) ~~(Performance)~~; or

iii. REScheck (U.S. Department of Energy Building Codes Program).

(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

9-9-~~23~~28: ~~Iecc~~ IECC Energy Code Amendment, Add Table R402.6, Log Home Prescriptive Thermal Envelope Requirements By Component

TABLE R402.6
LOG HOME PRESCRIPTIVE THERMAL ENVELOPE REQUIREMENTS BY COMPONENT

Climate Zone	Fenestration U-Factor[a]	Skylight U-Factor	Glazed Fenestration SHGC	Ceiling R-Value	Min. Average LOG Size In Inches	Floor R-Value	Basement Wall R-Value[d]	Slab R-Value & Depth[b]	Crawl Space Wall R-Value[d]
5, 6-High efficiency equipment path[c]	0.32	0.60	NR	49	5	30	15/19	10, 4 ft.	10/13

Climate Zone	Fenestration U-Factor[a]	Skylight U-Factor	Glazed Fenestration SHGC	Ceiling R-Value	Min. Average LOG Size In Inches	Floor R-Value	Basement Wall R-Value[d]	Slab R-Value & Depth[b]	Crawl Space Wall R-Value[d]
5	0.32	0.60	NR	49	8	30	10/13	10, 2 ft.	10/13

For SI: 1 foot = 304.8 mm

a. The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration.
b. R-5 shall be added to the required slab edge R-values for heated slabs.
c. 90% AFUE natural gas or propane, 84% AFUE oil, or 15 SEER heat pump heating equipment (zonal electric resistance heating equipment such as electric base board electric resistance heating equipment as the sole source for heating is considered compliant with the high efficiency equipment path).
d. "15/19" means R-15 continuous insulated sheathing on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall. "15/19" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulated sheathing on the interior or exterior of the home. "10/13" means R-10 continuous insulated sheathing on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall.
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

~~**9-9-24: Iecc Energy Code Amendment, Section R403.3.3, Duct Testing (mandatory)**~~

~~**R403.3.3 Duct testing (Mandatory).** Ducts shall be pressure tested in accordance with ANSI/RESNET/ICC 380 to determine air leakage by one of the following methods:~~

~~1. Rough-in test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure if installed at the time of the test. All registers shall be taped or otherwise sealed during the test.~~

~~2. Post-construction test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. Registers shall be taped or otherwise sealed during the test.~~

~~**Exception:** A duct air leakage test shall not be required where the ducts and air handlers are located entirely within the building thermal envelope.~~
~~A written report of the results of the test shall be signed by the party conducting the test and provided to the *code official.*~~
~~(Ord. 43-17, 12-19-2017, eff. 1-1-2018)~~

9-9-29: IECC Energy Code Amendment, Section R403.5.3, Hot Water Pipe Insulation (Prescriptive)

R403.5.3 Hot water pipe insulation (Prescriptive). Insulation for hot water piping with a thermal resistance, R-value, of not less than R-3 shall be applied to the following:

1. Piping serving more than one (1) dwelling unit.
2. Piping located outside the conditioned space.
3. Piping located under a floor slab.
4. Buried piping.
5. Supply and return piping in recirculation systems other than demand recirculation systems.

9-9-30: IECC Energy Code Amendment, Section R404.1, Lighting Equipment (Mandatory)

R404.1 Lighting equipment (Mandatory). A minimum of seventy-five percent (75%) of the lamps in permanently installed lighting fixtures shall be high-efficacy lamps or a minimum seventy-five percent (75%) of the permanently installed lighting fixtures shall contain only high-efficacy lamps.

9-9-~~25~~31: ~~Iecc~~ IECC Energy Code Amendment, Section R406.3, Energy Rating Index

R406.3 Energy Rating Index. The Energy Rating Index (ERI) shall be determined in accordance with ~~ANSI/~~RESNET/ICC 301. Energy used to recharge or refuel a vehicle used for transportation on roads that are not on the building site shall not be included in the ERI reference design or the rated design.
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

~~**9-9-26: Iecc Energy Code Amendment, Delete Section R406.3.1, Eri Reference Design**~~

~~**R406.3.1 ERI Reference Design.** Delete.~~
~~(Ord. 43-17, 12-19-2017, eff. 1-1-2018)~~

9-9-~~27~~32: ~~Iecc~~ IECC Energy Code Amendment, Table R406.4, Maximum Energy Rating Index

The Energy Rating Index value for Climate Zone 5 shall be amended to read as follows:

TABLE R406.4
MAXIMUM ENERGY RATING INDEX

CLIMATE ZONE	ENERGY RATING INDEX[a]
5	61

a. Where on-site renewable energy is included for compliance using the ERI analysis of Section R406.4, the building shall meet the mandatory requirements of Section

R406.2, and the building thermal envelope shall be greater than or equal to the levels of efficiency and SHGC in Table R402.1.2 or Table R402.1.4 of the 2015 *International Energy Conservation Code*.
(Ord. 43-17, 12-19-2017, eff. 1-1-2018)

~~**9-9-28: Iecc Energy Code Amendment, Section R406.5, Verification By Approved Agency**~~

~~**R406.5 Verification by approved agency.** Verification of compliance with Section R406 shall be completed by a third-party approved in accordance with ANSI/RESNET/ICC 301.~~
~~(Ord. 43-17, 12-19-2017, eff. 1-1-2018)~~

~~**9-9-29: Iecc Energy Code Amendment, Section R406.6, Documentation**~~

~~**R406.6 Documentation.** Documentation of the software used to determine the ERI and the parameters for the residential building shall be in accordance with Sections R406.6.1 through R406.6.5.~~
~~(Ord. 43-17, 12-19-2017, eff. 1-1-2018)~~

~~**9-9-30: Iecc Energy Code Amendment, Section R406.6.1, Compliance Software Tools**~~

~~**R406.6.1 Compliance software tools.** Software tools used for determining the ERI shall be Approved Software Rating Tools in accordance with ANSI/RESNET/ICC 301.~~
~~(Ord. 43-17, 12-19-2017, eff. 1-1-2018)~~

~~**9-9-31: Iecc Energy Code Amendment, Add Section R406.6.4, Specific Approval**~~

~~**R406.6.4 Specific approval.** Performance analysis tools meeting the applicable sections of Section R406 shall be *approved*. Documentation demonstrating the approval of performance analysis tools in accordance with Section R406.6.1 shall be provided to the *code official*.~~
~~(Ord. 43-17, 12-19-2017, eff. 1-1-2018)~~

~~**9-9-32: Iecc Energy Code Amendment, Add Section R406.6.5, Input Values**~~

~~**R406.6.5 Input values.** When calculations require input values not specified by Sections R402, R403, R404, or R405, those input values shall be taken from ANSI/RESNET/ICC 301.~~
~~(Ord. 43-17, 12-19-2017, eff. 1-1-2018)~~

~~**9-9-33: Iecc Energy Code Amendment, Delete Section R406.7, Calculation Software Tools, Including Subsections R406.7.1, Minimum Capabilities, R406.7.2, Specific Approval And R406.7.3, Input Values**~~

~~**R406.7 Calculation Software Tools.** Delete including subsections R406.7.1, Minimum Capabilities, R406.7.2, Specific Approval and R406.7.3, Values.~~
~~(Ord. 43-17, 12-19-2017, eff. 1-1-2018)~~

~~**9-9-34: Iecc Energy Code Amendment, Chapter 6 Referenced Standards**~~

The following referenced standards shall be added into chapter 6 of the code as follows:

ANSI/RESNET/ICC	Residential Energy Services Network, Inc. P.O. Box 4561 Oceanside, CA 92052-4561	International Code Council 500 New Jersey Avenue, NW, 6th Floor Washington, D.C. 20001
Standard reference number	Title	Referenced in code section number
301-2014	Standard for the Calculation and Labeling of the Energy Performance of Low-Rise Residential Buildings using an Energy Rating Index	R406.3, R406.5, R406.6.1, R406.6.5

ANSI/RESNET/ICC	Residential Energy Services Network, Inc. P.O. Box 4561 Oceanside, CA 92052-4561	International Code Council 500 New Jersey Avenue, NW, 6th Floor Washington, D.C. 20001
Standard reference number	Title	Referenced in code section number
380-2016	Standard for Testing Airtightness of Building Enclosures, Airtightness of Heating and Cooling Air Distribution Systems, and Airflow of Mechanical Ventilation Systems	R402.4.1.2, R403.3.3

(Ord. 43-17, 12-19-2017, eff. 1-1-2018)