



**CITY OF BOULDER  
CITY COUNCIL AGENDA ITEM**

**MEETING DATE: September 21, 2010**

**AGENDA TITLE:**

Items related to SmartRegs:

- 1) Third reading and consideration of a motion to adopt ordinance No. 7724 repealing and reenacting Chapter 10-2, "Housing Code" B.R.C. 1981 to adopt by reference, the 2009 edition of the International Property Maintenance Code (IPMC) with certain amendments and deletions and setting forth related details.
- 2) Third reading and consideration of a motion to adopt ordinance No. 7725 amending Section 4-20-18, "Rental License Fee," and Chapter 10-3, "Rental Licenses," B.R.C. 1981, to provide for comprehensive enforcement of Chapter 10-2, "Property Maintenance Code," B.R.C. 1981, through a system of rental licenses for all dwelling and rooming accommodations in the city rented to tenants and setting forth related details.
- 3) Third reading and consideration of a motion to adopt ordinance No. 7726 amending Chapter 4-4, "Building Contractor License," Chapter 4-20, "Fees," Chapter 10-1, "Definitions," Chapter 10-2, "Property Maintenance Code," and Chapter 10-3, "Rental Licenses," B.R.C. 1981 regarding energy conservation for existing residential rental structures, and setting forth related details.

**PRESENTERS:**

Jane S. Brautigam, City Manager  
Paul J. Fetherston, Deputy City Manager

Department of Public Works

Maureen Rait, Executive Director  
Neil Poulsen, Chief Building Official  
Kirk Moors, Senior Plans Examiner

Department of Community Planning and Sustainability

David Driskell, Executive Director  
Mary Ann Weideman, Acting Deputy Director of Operations  
Kara Mertz, Local Environmental Action Manager  
Yael Gichon, Residential Sustainability Coordinator  
James Hewat, Historic Preservation Planner

Department of Housing and Human Services

Karen Rahn, Director  
Jeff Yegian, Community Development Program Manager

## **EXECUTIVE SUMMARY:**

The purpose of this memo is to provide a brief summary of the Sept. 7 City Council meeting related to the SmartRegs proposal and outline next steps. The SmartRegs proposal includes recommended changes to Boulder's Housing Code and Rental License Code and incorporates energy efficiency requirements as part of the code updates to address Climate Action Plan (CAP) objectives.

Based on the Sept. 7 public hearing and second reading discussions, staff proposes the code amendments described below to update the general provisions of the Housing Code and Rental License Code, as well as to add an energy efficiency requirement to the rental licensing program:

### **Housing Code**

- Adopt Ordinance No. 7724 to repeal and reenact Chapter 10-2, "Housing Code" B.R.C. 1981 to adopt by reference, the 2009 edition of the International Property Maintenance Code (IPMC) with certain amendments and deletions and setting forth related details. (**Attachment A**)

### **Rental License Code**

- Adopt Ordinance No. 7725 to amend Section 4-20-18, "Rental License Fee," and Chapter 10-3, "Rental Licenses," B.R.C. 1981, to provide for comprehensive enforcement of Chapter 10-2, "Property Maintenance Code," B.R.C. 1981, through a system of rental licenses for all dwelling and rooming accommodations in the city rented to tenants and setting forth related details. (**Attachment B**)

### **Energy Efficiency Code**

- Adopt Ordinance No. 7726 to amend Chapters 4-4, "Building Contractor License," Chapter 4-20, "Fees," Chapter 10-1, "Definitions," Chapter 10-2, "Property Maintenance Code," and Chapter 10-3, "Rental Licenses," B.R.C. 1981 regarding energy conservation for existing residential rental structures, and setting forth related details. (**Attachment C**)

Due to substantive changes to the ordinances since first reading, and the subsequent acceptance of the proposed amendments at second reading, a third reading is being held. The proposed implementation date is Jan. 3, 2011, with an energy efficiency compliance date of Jan. 2, 2019 for all rental properties in the City of Boulder. Additionally, due to the complexity of the three amended ordinances, an ordinance including further refinements will be scheduled for Council consideration in November.

Further, a study session is proposed for April 2011 to address issues related to administration and enforcement of the rental license code. This may be in combination with the first SmartRegs energy efficiency compliance report to Council proposed for the same time period.

## **STAFF RECOMMENDATION:**

### **Suggested Motion Language:**

Staff requests Council consideration of this matter and action in the form of the following motions:

#### **Housing Code**

Motion to adopt Ordinance No. 7724, repealing and reenacting Chapter 10-2, "Housing Code" B.R.C. 1981 to adopt by reference, the 2009 edition of the International Property Maintenance Code (IPMC) with certain amendments and deletions and setting forth related details.

#### **Rental License Code**

Motion to adopt Ordinance No. 7725, amending Section 4-20-18, "Rental License Fee," and Chapter 10-3, "Rental Licenses," B.R.C. 1981, to provide for comprehensive enforcement of Chapter 10-2, "Property Maintenance Code," B.R.C. 1981, through a system of rental licenses for all dwelling and rooming accommodations in the city rented to tenants and setting forth related details.

#### **Energy Efficiency Code**

Motion to adopt Ordinance No. 7726, amending Chapters 4-4, "Building Contractor License," Chapter 4-20, "Fees," Chapter 10-1, "Definitions," Chapter 10-2, "Property Maintenance Code," and Chapter 10-3, "Rental Licenses," B.R.C. 1981 regarding energy conservation for existing residential rental structures, and setting forth related details.

## **SEPT. 7 MEETING SUMMARY:**

On Sept. 7, three amended ordinances were considered to update the general provisions of the Housing Code and Rental License Code, as well as to add an energy efficiency requirement to the rental licensing program. The Sept. 7 second reading materials are located at [www.bouldercolorado.gov/smartregs](http://www.bouldercolorado.gov/smartregs) (select Current/Past Meetings). Staff presented information related to the three ordinances and Scot Woolley, Environmental Advisory Board representative, presented the board's recommendation. Seventeen speakers addressed this item in the public hearing. After the public hearing was closed, Council requested a staff response to clarifying questions and approved a motion to adopt the three ordinances as amended, substituting the prescriptive list as presented on Sept. 7 and requesting program progress reports every other month beginning in April 2011. The motion was approved as amended 8-0; K.C. Becker absent. Due to substantive changes to the ordinances since first reading, and the subsequent acceptance of the proposed amendments at second reading, a third reading is being held on Sept. 21.

## **BACKGROUND:**

The Background, Community Sustainability Assessments and Fiscal Impacts; Board, Community Working Group, and Public Feedback; and, Analysis for the SmartRegs proposal were provided in the May 18, June 1, July 6 and Sept. 7 memorandums located at [www.bouldercolorado.gov/smartregs](http://www.bouldercolorado.gov/smartregs) (select Current/Past Meetings). Additional feedback received after Aug. 19 is included in **Attachment D**.

## **NEXT STEPS:**

The proposed ordinances will go into effect on Jan. 3, 2011; a time frame which will facilitate implementation work such as: public notice; updating application materials, the handbook, the

licensing database, and the Web; preparing and scheduling training workshops, and allowing additional time for workforce development.

Due to the complexity of the three amended ordinances, an ordinance including further refinements will be scheduled for Council consideration in November. Additionally, to address issues related to administration and enforcement of the rental license code a study session is proposed to be scheduled in April 2011. This may be in combination with the first energy efficiency compliance report to Council proposed for the same time period.

Staff will begin reporting the status of energy efficiency compliance to Council on an every other month basis beginning in April 2011 and will provide an Annual Report in April 2012.

The development of a Commercial Energy Conservation Ordinance (CECO) is also being analyzed and will be scheduled for Council consideration in 2011.

**ATTACHMENTS:**

- Attachment A: Ordinance 7724 to Adopt International Property Maintenance Code (IPMC)
- Attachment B: Ordinance 7725 to Update Rental License Code
- Attachment C: Ordinance 7726 to Adopt Energy Efficiency Code
- Attachment D: Public Correspondence Received After August 19

## ORDINANCE NO. 7726

AN ORDINANCE AMENDING CHAPTERS 4-4, "BUILDING CONTRACTOR LICENSE," CHAPTER 4-20, "FEES," CHAPTER 10-1, "DEFINITIONS," CHAPTER 10-2, "PROPERTY MAINTENANCE CODE," AND CHAPTER 10-3, "RENTAL LICENSES," B.R.C. 1981 REGARDING ENERGY CONSERVATION FOR EXISTING RESIDENTIAL RENTAL STRUCTURES, AND SETTING FORTH RELATED DETAILS

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BOULDER, COLORADO:

Section 1. Section 4-4-4, B.R.C. 1981 is amended to read:

**4-4-4 Classification of Licenses.**

- (a) A Class A license entitles the licensee to contract for the construction, alteration, wrecking, or repair of any type or size of building or structure permitted by the ~~International~~ City of Boulder Building Code-130. The annual fee for a Class A license is that prescribed ~~by~~ in section 4-20-4, "Building Contractor License and Building Permit Fees," B.R.C. 1981.
- (b) A Class B license entitles the licensee to contract for the construction, alteration, wrecking, or repair of all commercial and residential buildings or structures defined as Type V, Type V-1 hour, Type IV, Type II-N, and Type III-N in the ~~International~~ City of Boulder Building Code. The annual fee for a Class B license is that prescribed in section 4-20-4, "Building Contractor License and Building Permit Fees," B.R.C. 1981.
- (c) A Class C license entitles the licensee to contract for:
- (1) The construction, alteration, wrecking, or repair of any R-3 occupancies or of R-1 occupancies, as defined in the ~~International~~ City of Boulder Building Code, chapter 10-5, "Building Code," B.R.C. 1981, of two stories or less not involving reinforced concrete construction; and
  - (2) The repair of non-residential buildings not involving load-bearing structures. But this Class C license does not entitle the holder to contract for construction, alteration, or repair of public buildings or places of public assembly, nor for non-residential projects whose total value of the labor and material exceeds \$5,000.00. The annual fee for a Class C license is that prescribed in section 4-20-4, "Building Contractor License and Building Permit Fees," B.R.C. 1981.
- (d) A Class D license entitles the licensee to contract for labor or for labor and materials involving only one trade, these trades will be identified as listed below:

- D-1. Moving and wrecking of structures
- D-2. Roofing
- D-3. Siding
- D-4. Landscaping, irrigation and site work
- D-5. Detached one-story garage and sheds accessory to single-family dwellings
- D-6. Mobile home installer
- D-7. Elevator and escalator installer
- D-8. Class not identified above but requiring a building permit and inspection
- D-9. Rental housing inspector

A Class D licensee may be licensed to perform more than one such trade. The annual fee for Class D license is that prescribed in section 4-20-4, "Building Contractor License and Building Permit Fees," B.R.C. 1981.

(e) A Class E license entitles the licensee to contract for the building or construction of:

- (1) All fences of any size or value, and
- (2) Minor structures, including, without limitation, sheds of two hundred square feet or less, or for the alteration or repair of other buildings or other structures, if total value of the labor and materials for each such project does not exceed \$2,000.00, the total square footage of each such project does not exceed two hundred square feet, and such work does not involve any load-bearing structure of the building. The annual fee for a Class E license is that prescribed in section 4-20-4, "Building Contractor License and Building Permit Fees," B.R.C. 1981.

(f) A Class F license entitles the licensee to construct, alter, or repair the licensee's own building or structure, if the total value of the labor and material for each such project does not exceed \$500.00 and if the project does not involve alteration of a load-bearing structure or work governed by the city's electrical, mechanical, or plumbing codes.

(g) A Class G license entitles the licensee to inspect prescriptive energy efficiency measures as detailed in the Property Maintenance Code, Appendix C.

Section 2. Section 4-4-5, B.R.C. 1981 is amended to read:

#### **4-4-5 License Application and Qualifications.**

(a) An applicant for an initial building contractor license shall:

- (1) Apply on forms furnished by the city manager, provide such information relating to the applicant's competence, education, training, and experience as the manager may require; and pay the fee prescribed in section 4-20-4, "Building Contractor License and Building Permit Fees," B.R.C. 1981;

(2) If applying for a license on or after January 1, 1983, successfully pass an examination designed by the manager to test the applicant's qualification for the category of license requested; and

(3) Provide evidence of insurance coverage required by section 4-1-8, "Insurance Required," B.R.C. 1981.

(b) An applicant for a Class F license need not comply with paragraphs (a)(2) and (a)(3) of this section. An applicant for a Class D-9 license need not comply with paragraph (a)(3) of this section, and the city manager may substitute attendance at a seminar on rental housing inspection given by the city for the examination required by paragraph (a)(2) of this section of D-9 licensees.

(c) An applicant for a Class D-9 license shall show proof of current American Society of Home Inspectors, Inc. or National Association of Home Inspectors Inc.; ~~certification or tested candidate status after passing the ASHI test certification~~, current certification as a combination building inspector by the International Conference of Building Officials or the International Code Council, possession of a current, valid Class A, B, or C general contractor's license, or licensure by the state of Colorado as a qualified design professional (architect or engineer) an architect or mechanical or structural engineer.

(d) An applicant for a Class G license shall show proof of current American Society of Home Inspectors, Inc., or National Association of Home Inspectors, Inc., certification, current certification as a Combination Building Inspector or Commercial or Residential Energy Inspector by the International Code Council, possession of a current, valid City of Boulder Class A, B or C general contractor's license or licensure by the State of Colorado as a qualified design professional (architect or engineer or equivalent qualifications reviewed and approved by the city manager.) All of the above licensees shall also be trained and certified through the City of Boulder to make prescriptive energy efficiency inspections.

Section 3. Section 4-20-4, B.R.C. 1981 is amended to read:

#### **4-20-4 Building Contractor License and Building Permit Fees.**

(a) An applicant for a building contractor license shall pay the following annual fee according to the type of license requested:

	Application	Fee
(1)	Class A	\$460.00
(2)	Class B	307.00
(3)	Class C	197.00
(4)	Class D-1 through D-8	153.00
(5)	Class D-9	15.00

	Application	Fee
(6)	Class E	75.00
(7)	Class G	15.00

(b) The fees herein prescribed shall not be prorated.

...

Section 4. Section 10-1-1, B.R.C. 1981 is amended to read:

#### **10-1-1 Definitions.**

(a) The following terms used in this title have the following meanings unless the context clearly indicates otherwise:

...

"Energy efficiency requirements inspection" means a physical inspection performed by a class G city-licensed contractor for the purpose of determining compliance with the Prescriptive Energy Efficiency Option under Section C101.2.2.

...

"Permanently affordable unit" has the same meaning as in Chapter 9-13, "Inclusionary Zoning," B.R.C. 1981.

...

"Qualifying carbon offset" means a financial instrument aimed at a reduction in greenhouse gases, purchased from the Colorado Carbon Fund (CCF) or from an alternative fund established by the city. One qualifying carbon offset represents the reduction of one metric ton of carbon dioxide or its equivalent (CO2e) in other greenhouse gases (if purchased from CCF) or another level of reduction specified by any alternative fund established by the city.

...

~~"Safety inspection" means, with respect to any rental housing unit covered by a current rental license, a combined report of the physical and functional condition of all fuel burning appliances and their appurtenances and a tune-up of those appliances made by a qualified heating maintenance person based on the requirements of section 10-2-10, "Mechanical and Heating Standards," B.R.C. 1981, and a report on the condition and location of all smoke detectors required by this title and a trash removal plan meeting the requirements of subsection 6-3-3(b), B.R.C. 1981, made and verified by the owner or operator, on a checklist form developed by the city manager based on these requirements and provided by~~



1 ~~the manager to property owners, tenants, housing inspectors, and the public upon~~  
2 ~~request.~~

3 “Renewal inspection” means, with respect to any rental housing unit covered by a  
4 current rental license, an inspection performed by a qualified city-licensed  
5 contractor for the purpose of determining compliance with all required items  
6 specified on a rental housing renewal inspection checklist that are likely to  
7 become noncompliant over time, based on the requirements of chapter 10-2,  
8 "Property Maintenance Code," B.R.C. 1981.

9 ...

10 Section 5. Section 202, “Property Maintenance Code of the City of Boulder,” as  
11 adopted and amended by section 10-2-2, Property Maintenance Code, B.R.C. 1981, is  
12 further amended to read as follows:

13 SECTION 202  
14 GENERAL DEFINITIONS

15 (No changes except as follows)

16 CODE OFFICIAL. The city manager and any city manager's delegate charged with the  
17 administration and enforcement of this code.

18 KITCHEN SINK. A kitchen sink shall be no smaller than twenty inches by sixteen inches, with a  
19 minimum uniform depth of six inches and a maximum uniform depth of twenty inches. Laundry  
20 tubs, lavatory basins, or bathtubs are not acceptable substitutes for required kitchen sinks.

21 MANUFACTURED HOME. Means a structure, transportable in sections, built on a permanent  
22 chassis and designed for use with or without a permanent foundation when connected to the  
23 required utilities. The term “manufactured home” includes “modular home” but does not include  
24 “recreational vehicle.”

25 TECHNICALLY IMPRACTICAL. Alterations that are unlikely to be accomplished because  
26 existing structural conditions or site constraints prohibit practical modifications or addition of  
27 elements or features that would attain the energy efficiency requirements of Appendix C of Title  
28 10-2, “Property Maintenance Code,” B.R.C. 1981.

Section 6. Section 10-2-1, B.R.C. 1981 is amended to read:

**10-2-1 Legislative Intent.**

(a) The City Council finds:

(1) Energy efficiency requirements for housing are necessary because:

1           (A) reducing greenhouse gas emissions in existing buildings is imperative to  
2           meet the City of Boulder’s sustainability goals;

3           (B) rental housing represents the largest number of existing housing units in  
4           the city; and

5           (C) efforts to establish incentives for voluntary energy efficiency retrofits in  
6           rental housing have proven to be ineffective.

7   **(b) Reducing greenhouse gas emissions has been established as an important public policy**  
8   **objective and mandated by the City of Boulder due to:**

9           (1) the well-documented link between reduction of such emissions and current and  
10          projected climate change; and

11          (2) the profound public health and safety impacts of such emissions, including but not  
12          limited to:

13           (A) increased risk of extreme weather events,

14           (B) increased flood severity,

15           (C) increased risk and intensity of catastrophic wildfire,

16           (D) increased insect invasions causing forest die-offs, and

17           (E) increased risk of drought.

18   **(c) The purposes of this chapter ~~is~~ are as follows:**

19           (1) to protect the public health, safety and general welfare of the residents of the city  
20           by regulating existing residential rental and privately occupied residential  
21           structures and to promote conservation and the efficient use of energy;

22           (2) to establish minimum energy efficiency requirements for existing rental and  
23           privately occupied housing in the City of Boulder with the goal of reducing  
24           greenhouse gas emissions; and

25           (3) to address the unique needs and challenges associated with energy retrofits in  
26           existing rental and privately occupied housing.

27   **(d) The City Council hereby adopts the 2009 edition of the International Property**  
28   **Maintenance Code as the Property Maintenance Code of the City of Boulder. This**  
chapter establishes minimum code standards related to: administration; definitions;  
general requirements; light, ventilation and occupancy limitations; plumbing facilities  
and fixture requirements; mechanical and electrical systems; fire safety requirements;  
rental licensing and existing residential rental structure energy conservation.

Section 7. Chapter 10-2, “Property Maintenance Code,” B.R.C. 1981, is amended to add  
Appendix C, to read:

1 **Appendix C – Energy Efficiency Requirement**

2 **EXISTING RESIDENTIAL RENTAL STRUCTURES**  
3 **ENERGY CONSERVATION**

4 **C101**

5 **SCOPE**

6 **C101.1 Scope.** Appendix C sets standards for residential rental dwelling unit energy efficiency.  
7 Effective January 2, 2019, the energy efficiency requirements of this section shall apply to all  
8 residential rental dwelling units licensed according to B.R.C. 1981, 10-3-2, Rental licenses  
9 except:

- 10 1. Buildings that can be verified as meeting or exceeding the energy efficiency  
11 requirements of the Energy Conservation and Insulation Code, Chapter 10-7,  
12 B.R.C. 1981.
- 13 2. Any manufactured home.
- 14 3. Accessory Dwelling Units and Attached Owner Accessory Units as detailed  
15 in section 9-6-3, “Specific Use Standards Residential Uses.” B.R.C. 1981.

16 **C101.2 Compliance.** The energy efficiency of existing residential rental dwelling units must  
17 comply with Section C101.2.1 for performance-based energy efficiency requirements or Section  
18 C101.2.2 for prescriptive-based energy efficiency requirements. The code official may grant  
19 exceptions as follows:

- 20 1. Innovative Materials: Buildings where equivalent energy efficiency  
21 performance through the use of innovative materials, methods and/or  
22 equipment in accordance with Section 105 of this code as an alternative to the  
23 performance and prescriptive methods. The code official shall determine the  
24 relative values and effectiveness of innovative materials, methods and/or  
25 equipment in satisfying the intent and purpose of this code.
- 26 2. Historic Buildings: Reasonable alterations and modifications in the award of  
27 prescriptive and performance points of this chapter upon a finding by the code  
28 official that:
- a. Strict application of the requirements requires an alteration to an  
individual landmark or a contributing building within a historic  
district established under chapter 9-11, B.R.C. 1981, that would not  
be eligible for approval as part of a landmark certificate; or
- b. The purposes of this appendix are otherwise met through such  
alterations and modifications; or

1                   c. Such alterations or modifications are necessary to remove barriers for  
2                   permanently affordable housing units.

3                   3. Affordable Housing: Rental dwelling units meeting the requirements for a  
4                   permanently affordable unit, as follows:

5                   a. Units weatherized according to state or federal subsidy program  
6                   standards after September 1994;

7                   b. Units eligible for weatherization according to state or federal subsidy  
8                   program standards that have applied for weatherization service; an  
9                   exception for one rental license cycle, to reach compliance. The code  
10                  official may approve additional time to achieve compliance if one  
11                  rental license cycle is not adequate;

12                  c. Units not qualifying for weatherization according to state or federal  
13                  subsidy programs; an exception for one rental license cycle to achieve  
14                  compliance. The code official may approve additional time to achieve  
15                  compliance if one rental license cycle is not adequate.

16                  4. Technically Impractical: Buildings where energy efficiency upgrades are  
17                  technically impractical in accordance with IPMC sec. 105.1. Owners shall  
18                  demonstrate equivalent code compliance as follows:

19                  a. Except as provided below, owners shall make the energy efficiency  
20                  improvements that are practical and shall purchase, for each rental  
21                  license cycle, qualifying carbon offsets prorated for the improvements  
22                  that are impractical.

23                  b. If the building is the subject of an application for concept review, site  
24                  review or a demolition permit, and the application shows that the  
25                  building will be demolished or substantially remodeled within the  
26                  next licensing period, the owner need not make energy efficiency  
27                  improvements, but must purchase, for each rental license cycle,  
28                  carbon offsets for the improvements not made.

**C101.2.1 Performance energy efficiency option.** Existing residential rental structures shall  
demonstrate energy efficiency compliance by obtaining a minimum Home Energy Rating  
System (HERS) index of 120 per rental dwelling unit. A HERS index shall be determined by a  
rater accredited by the Residential Energy Services Network (RESNET). For multi-dwelling  
rental structures, a HERS index sampling protocol authorized and approved by the code official  
may be utilized.

**C101.2.2 Prescriptive energy efficiency option.** The energy efficiency of residential structures  
shall be determined by an energy efficiency inspection score of 100 points as documented on  
table C101.2. The applicant shall provide an energy efficiency compliance certificate signed by

1 a licensed and approved contractor per subsection 4-4-4(g), “Building Contractor License,” and  
2 section 4-4-5, “License Application and Qualifications,” B.R.C. 1981.

**Table 101.2**

**SmartRegs Prescriptive Pathway**

Need 100 Total Points + Mandatory Water Conservation Measures

**WALLS** Base: Final:

<u>R-VALUE</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>
No Insulation	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
R-3 Continuous (must be at least R-3)	<u>3</u>	<u>6</u>	<u>9</u>	<u>12</u>
R-5 Continuous	<u>4</u>	<u>8</u>	<u>12</u>	<u>15</u>
R-13 or Uninsulated Basement Wall	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>
R-19 or Better	<u>5</u>	<u>11</u>	<u>16</u>	<u>21</u>
Shared Wall or Insulated Basement Wall	<u>6</u>	<u>13</u>	<u>19</u>	<u>26</u>

**WINDOWS/FENESTRATION** Base: Final:

<u>TYPE</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>
Single Metal (1.2 U-Value)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Single Non-Metal <sup>1</sup> (.95 U-Value)	<u>0</u>	<u>1</u>	<u>1</u>	<u>2</u>
Double Metal (.8 U-Value)	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Double Non-Metal <sup>1</sup> (.55 U-Value)	<u>2</u>	<u>3</u>	<u>5</u>	<u>6</u>
0.35 U-Value <sup>1</sup>	<u>3</u>	<u>7</u>	<u>10</u>	<u>13</u>
0.30 U-Value	<u>3</u>	<u>7</u>	<u>10</u>	<u>14</u>
0.25 U-Value or Better	<u>4</u>	<u>7</u>	<u>11</u>	<u>14</u>

<sup>1</sup> \*Historically designated properties and properties older than 50 years with wooden window frames that rehabilitate and install storm panels will receive credit at the 0.35 U-Value level.

**ATTIC** Base: Final:

<u>TYPE</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>
No Insulation	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
R-19	<u>6</u>	<u>12</u>	<u>18</u>	<u>24</u>
R-30	<u>6</u>	<u>13</u>	<u>19</u>	<u>26</u>
R-38 or Better	<u>7</u>	<u>13</u>	<u>20</u>	<u>26</u>
Shared Ceilings	<u>7</u>	<u>14</u>	<u>20</u>	<u>27</u>

**INFILTRATION** Base: Final:

<u>nACH</u>	<u>POINTS</u>
1.20 nACH or Less	<u>2</u>
0.75 nACH	<u>4</u>
0.50 nACH	<u>6</u>
0.35 nACH or Less (ventilate per ASHRAE 62.2)	<u>7</u>

<b>SLAB ON GRADE</b>				
<b>TYPE</b>	<b>25%</b>	<b>50%</b>	<b>75%</b>	<b>100%</b>
Slab Edge: R-0	<u>2</u>	<u>3</u>	<u>5</u>	<u>6</u>
Slab Edge: R-5	<u>2</u>	<u>4</u>	<u>5</u>	<u>7</u>
Slab Edge: R-10 or Better	<u>2</u>	<u>4</u>	<u>6</u>	<u>8</u>
Slab Edge R-10 plus Under Slab R-10 or Better	<u>3</u>	<u>6</u>	<u>8</u>	<u>11</u>
<b>BELOW GRADE SLAB (Basement Slab)</b>				
Basement Slab	<u>2</u>	<u>4</u>	<u>6</u>	<u>8</u>
<b>FOUNDATION WALLS (Crawlspace)</b>				
R-0	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
R-2	<u>2</u>	<u>3</u>	<u>5</u>	<u>6</u>
R-11	<u>2</u>	<u>4</u>	<u>6</u>	<u>8</u>
R-19 or Better	<u>2</u>	<u>5</u>	<u>7</u>	<u>9</u>
<b>FLOOR</b>				
<b>(Only Available if No Ducts or HVAC Equipment are Located in Uninsulated Crawlspace Below Floor)</b>				
Floor Over Crawl: R-0	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Floor Over Crawl: R-13	<u>3</u>	<u>5</u>	<u>8</u>	<u>11</u>
Floor Over Crawl: R-25	<u>3</u>	<u>6</u>	<u>9</u>	<u>12</u>
Floor Over Crawl: R-38 or Better	<u>4</u>	<u>7</u>	<u>11</u>	<u>14</u>
Shared Floor	<u>4</u>	<u>8</u>	<u>11</u>	<u>15</u>

**SLAB / FOUNDATION**      **Base:**      **Final:**

**DUCT LEAKAGE**      **Base:**      **Final:**

<b>CFM per 100 SF</b>	<b>POINTS</b>
80 cfm @ 25 Pa	<u>0</u>
60 cfm @ 25 Pa	<u>4</u>
40 cfm @ 25 Pa	<u>9</u>
20 cfm @ 25 Pa	<u>14</u>
10 cfm @ 25 Pa or Less or no ducts (radiant)	<u>17</u>

**DUCTS / RADIANT**      **Base:**      **Final:**

<b>LOCATION / INSULATION</b>	<b>25%</b>	<b>50%</b>	<b>75%</b>	<b>100%</b>
Uninsulated Ducts (In Unconditioned Space)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Ducts Insulated to at Least R-4 (In Unconditioned Space)	<u>1</u>	<u>3</u>	<u>4</u>	<u>6</u>
Radiant Heat or Ducts Entirely Within Conditioned Space	<u>2</u>	<u>3</u>	<u>5</u>	<u>7</u>

**HEATING** **Base:** **Final:**

<u>SPECIFICATION</u>	<u>POINTS</u>
<u>Electric, Oil, or ASHP</u>	<u>0</u>
<u>Gas 65 AFUE or worse</u>	<u>0</u>
<u>Gas 80 AFUE</u>	<u>13</u>
<u>Gas 90 AFUE</u>	<u>17</u>
<u>Gas 96 AFUE</u>	<u>19</u>
<u>GSHP (COP 3.3)</u>	<u>29</u>
<u>GSHP (COP 4.1)</u>	<u>38</u>
<u>GSHP (COP 4.8)</u>	<u>43</u>

**COOLING** **Base:** **Final:**

<u>SPECIFICATION</u>	<u>POINTS</u>
<u>10 SEER or worse</u>	<u>0</u>
<u>13 SEER</u>	<u>4</u>
<u>15 SEER / Evaporative Cooler / no A/C</u>	<u>6</u>
<u>17 SEER</u>	<u>7</u>
<u>19 SEER / Indirect Evaporative Cooler</u>	<u>8</u>
<u>GSHP (&gt; EER 13.5)</u>	<u>4</u>

**FANS** **Base:** **Final:**

<u>SPECIFICATION</u>	<u>POINTS</u>
<u>Whole House Fan (In Addition to Cooling Points)</u>	<u>2</u>

**LIGHTING** **Base:** **Final:**

<u>HIGH- EFFICACY LIGHTING</u>	<u>POINTS</u>
<u>(solar tubes/light tunnels counted as light fixtures)</u>	
<u>0%</u>	<u>0</u>
<u>25%</u>	<u>2</u>
<u>50%</u>	<u>4</u>
<u>75%</u>	<u>6</u>
<u>100%</u>	<u>7</u>

**HOT WATER** **Base:** **Final:**

<u>SPECIFICATION</u>	<u>POINTS</u>
<u>Electric, Oil or Heat Pump</u>	<u>0</u>
<u>Gas 56 EF</u>	<u>0</u>
<u>Gas 60 EF</u>	<u>1</u>
<u>Gas 64 EF</u>	<u>2</u>



Gas Tankless 82 EF or Better	<u>6</u>
Gas Boiler Side Arm (65 AFUE Boiler)	<u>0</u>
Gas Boiler Side Arm (80 AFUE Boiler)	<u>3</u>
Gas Boiler Side Arm (95 AFUE Boiler)	<u>5</u>

**REFRIGERATION** Base: Final:

<u>SPECIFICATION</u>	<u>POINTS</u>
<u>750 kWh</u>	<u>0</u>
<u>650 kWh</u>	<u>2</u>
<u>450 kWh</u>	<u>3</u>
<u>350 kWh or Better</u>	<u>4</u>

**SOLAR THERMAL** Base: Final:

<u>SPECIFICATION</u>	<u>POINTS</u>
<u>Points per 20 sq ft of collector surface area</u>	<u>8</u>

**PV** (includes power purchase agreements and solar leases) or verified subscription in a Community Solar Garden<sup>2</sup> Base: Final:

<u>kW</u>	<u>POINTS</u>
<u>Points per kW</u>	<u>44</u>

<sup>2</sup>Must earn 70 prescriptive pathway points in other categories to be eligible to earn PV points

**OCCUPANT** Base: Final:

<u>MEASURE</u>	<u>POINTS</u>
<u>Sub-Metering: Real Time Energy Monitoring Device</u>	<u>1</u>
<u>Programmable Thermostat</u>	<u>1</u>
<u>Provide Operation / Training Manual</u>	<u>1</u>
<u>Tenant Attends Energy Conservation Class</u>	<u>1</u>

**OTHER** Base: Final:

<u>MEASURE</u>	<u>POINTS</u>
<u>Heat Pump Desuperheater</u>	<u>1</u>
<u>Electrically Commutated Motor ("ECM")</u>	<u>3</u>
<u>Passive Solar Design</u>	<u>Discretionary – approved by City of Boulder</u>

<u>Innovative Practice</u>	<u>Discretionary – approved by City of Boulder</u>
<u>Technically Impractical Exception</u>	<u>Carbon Offsets valued at 8 points per ton</u>

## **Mandatory Water Conservation**

Must Earn Two Points Regardless of Whether Performance or Prescriptive SmartRegs Pathway is Chosen

<b><u>Water Conservation Measure<sup>3</sup></u></b>	<b><u>Points per Fixture</u></b>
<u>Low flow showerhead<sup>5</sup></u>	<u>1</u>
<u>Low flow lavatory faucets<sup>4</sup></u>	<u>1</u>
<u>Self-closing faucet valves</u>	<u>1</u>
<u>High-efficiency or dual-flush toilet<sup>6</sup></u>	<u>2</u>
<u>ENERGY STAR washing machine</u>	<u>2</u>
<u>ENERGY STAR dishwasher</u>	<u>2</u>

<sup>3</sup> Points earned in this category do not count towards prescriptive 100 point requirement

<sup>4</sup> The average flow rate for all bathroom faucets must be less than or equal to 1.5 gallons per minute (gpm).

<sup>5</sup> The average flow rate for all shower heads must be less than or equal to 2.0 gpm.

<sup>6</sup> The average flow rate for all toilets, including dual-flush toilets, must be less than or equal to 1.28 gpf (gallons per flush). A common dual-flush toilet has a 1.6 gpf and a 0.8 gpf. This makes an average of 1.2, which would qualify.

Definitions of acronyms:

**R-value:** a measure of thermal resistance used to describe insulation. The bigger the number, the better the insulation's effectiveness.

**U-value:** the overall heat transfer coefficient, describes how well a building element conducts heat. U-value is the inverse of R-value. The lower the U-value, the better.

**nACH:** natural air changes per hour

**HVAC:** Heating, Ventilating and Air Conditioning

**cfm:** cubic feet per minute

**Pa:** Pascal; a measure of force per unit area

1 **ASHP:** air source heat pump

2  
3 **AFUE:** annual fuel utilization efficiency; the most widely used measure of a furnace's heating efficiency

4 **GSHP:** ground source heat pump

5  
6 **COP:** coefficient of performance of a heat pump is the ratio of the change in heat at the "output" (the heat reservoir of interest) to the supplied work

7 **SEER:** seasonal energy efficiency ratio; used to measure the efficiency of air conditioners

8  
9 **EF:** energy factor is the ratio of useful energy output from the water heater to the total amount of energy delivered to the water heater. The higher the EF is, the more efficient the water heater

10 **kWh:** kilowatt hour; a unit of energy equal to 1000 watt hours

11 **kW:** kilowatt

12  
13  
14 **C101.3 Administration and enforcement.** Administration and enforcement of these measures shall be as detailed in Part 2 of this code.

15  
16 Section 8. Section 10-3-3, B.R.C. 1981 is amended to read:

17 **10-3-3 Terms of Licenses.**

18  
19 (a) License terms shall be as follows:

20 (1) Licenses, other than reduced term licenses issued under section 10-3-4, "Reduced  
21 Term Rental License," B.R.C. 1981 or temporary licenses issued under section  
22 10-3-9, "Temporary Rental License Appeals," B.R.C. 1981, shall expire four  
23 years from issuance or when ownership of the licensed property is transferred.

24 (A) In addition to any other applicable requirements, new licenses and  
25 renewals shall require that the licensee submit to the city manager a  
26 completed current renewal inspection report, on forms provided by the  
27 city. The renewal inspection report shall:

28 (i) In the section of the report concerning fuel burning appliances, be  
executed by a qualified heating maintenance person certifying  
compliance with those portions of subsection 10-2-10(e), B.R.C.  
1981, for which the report form requires inspection and  
certification.

- (ii) In the section of the report concerning smoke and carbon monoxide alarms, be executed by the operator certifying that the owner or agent inspected the smoke and carbon monoxide alarms in the licensed property and that they complied with the requirements of chapter 10-2, "Property Maintenance Code," B.R.C. 1981.
- (iii) In the section of the report concerning trash removal, be executed by the operator certifying that the operator has a current valid contract with a commercial trash hauler for removal of accumulated trash from the licensed property in accordance with subsection 6-3-3(b), B.R.C. 1981.
- (2) Accessory dwelling units or accessory units as defined in section 9-16-1, "General Definitions," B.R.C. 1981: four years from the date of license application for newly constructed units or from the date of prior license expiration for units for which the operator is renewing an unexpired license.
- (3) Reduced term licenses: as specified in section 10-3-4, "Reduced Term License," B.R.C. 1981
- (b) The city manager shall issue separate licenses for individual buildings. Such licenses shall cover all dwelling units and rooming units within such buildings. In a building containing attached but individually owned dwelling units, or any other dwelling units which may be separately conveyed, the city manager shall issue separate licenses for each dwelling unit. A structure, or group of structures, shall be considered to be a single building if it has been assigned a single street address by the city. If a complex of buildings on one property is under common ownership, and this owner is willing to have a common expiration date for the licenses for all dwelling and rooming units, the city manager may consider the whole complex to be the equivalent of a single building for the purposes of licensing and the fee schedule in section 4-20-18, "Rental License Fee," B.R.C. 1981.
- (c) Whenever an existing license is renewed, the renewal license shall be effective from the date of expiration of the last license if the applicant submits a complete renewal application by or within 90 days after the expiration date, unless the operator provides documentation satisfactory to the city manager, or an affidavit subject to the law against perjury, that no portion of the subject property was rented during any of the time between expiration of the old license and issuance of the new license, in which case the renewal license shall be effective as of the date of issuance. Licenses not renewed within 90 days will be considered expired, requiring a new baseline inspection report before renewal.
- (d) Issuance of any license (new or renewed) extending beyond December 31, 2018 requires meeting the energy efficiency requirements of Title 10-2, "Property Maintenance Code, Appendix C - Energy Efficiency Requirements," B.R.C. 1981.

Section 9. Section 10-3-4, B.R.C. 1981 is amended to read:

**10-3-4 Reduced Term License.**

(a) The city manager shall issue a reduced term license whenever the city manager determines that:

(1) violations of chapter 10-2, " Property Maintenance Code," B.R.C. 1981, revealed during an inspection, individually or in combination, demonstrate a failure to maintain the rental property in a safe, sanitary, and clean condition so that the dwelling endangers the health and safety of the occupants, or

(2) ~~if the city manager determines that~~ there is or has been a violation of a limitation on numbers of occupants or numbers of dwelling units found in title 9, "Land Use Code," B.R.C. 1981, which demonstrates a failure to maintain the rental property in compliance with that title; or

(3) the term of an initial license or renewal of an existing license would otherwise extend beyond December 31, 2018 for a property that has not received an "Energy efficiency requirements inspection" demonstrating compliance with chapter 10-2, "Property Maintenance Code, Appendix C - Energy Efficiency Requirements," B.R.C. 1981.

(4A) For violations of chapter 10-2, " Property Maintenance Code," B.R.C. 1981, the license term shall be reduced to twenty four months.

(2B) For violations of title 9, "Land Use Code," B.R.C. 1981, the license term shall be reduced to twelve months.

(C) In case of failure to demonstrate a satisfactory energy efficiency requirements inspection for the subject property, under paragraph (3), above, the license term shall expire December 31, 2018, unless, before that date, the city manager receives an energy efficiency requirements inspection demonstrating compliance, in which case the license term shall extend for the full period otherwise prescribed by this chapter.

(b) If an operator disagrees with the decision of the city manager to issue a reduced term license under subsection (a) of this section, such person may appeal the city manager's decision within thirty days after the issuance of the reduced term license, as follows:

(1) For reduced term licenses issued as a result of violations of chapter 10-2, " Property Maintenance Code," B.R.C. 1981, the appeal shall be made as provided in chapter 10-2, section 111 , "Means of Appeal ," B.R.C. 1981.

(2) For reduced term licenses issued as a result of violations of title 9, "Land Use Code," B.R.C. 1981, the appeal shall be made to the board of zoning adjustment,

1 although the fee amount shall be as specified for an appeal to the board of  
2 building appeals.

3 Section 10. Section 10-3-11, B.R.C. 1981 is amended to read:

4 **10-3-11 Change of Rental Property Ownership or Agent.**

5 (a) Within sixty days after transfer of ownership of a property for which there is a current  
6 and valid license at time of transfer, the new operator of the property shall apply for a  
7 new license . The new operator shall:

8 (1) Submit all license fees prescribed by section 4-20-18, "Rental License Fee,"  
9 B.R.C. 1981, with the application.

10 (2) Submit, in the form provided by the city manager, a certification of baseline  
11 inspection report for the property, conducted at the operator's expense by a rental  
12 housing inspector licensed by the city for such work, showing compliance with all  
13 applicable requirements. A rental housing inspector per-licensed under  
14 subsections 4-4-4 (g), "Building Contractor License," and 4-4-5 (d), "License  
15 Application and Qualifications," B.R.C. 1981 shall complete those portions of the  
16 inspection covered in chapter 10-2, Appendix C, "Efficiency Requirements,"  
17 B.R.C. 1981.

18 (3) Take all reasonable steps to notify all tenants of the property of the date and time  
19 of the scheduled inspection. The operator, or an agent of the operator other than  
20 the inspector or any tenant of the unit, shall accompany the inspector throughout  
21 the inspection, unlocking and opening doors as required.

22 (b) Within thirty days after transfer of ownership or change of local agent of a licensed  
23 property, the operator shall notify the city manager of the identity and mailing address of  
24 the new owner or new local agent.

25 (c) Issuance of any licenses extending beyond December 31, 2018 requires meeting the  
26 energy efficiency requirements of Title 10-2, "Property Maintenance Code, Appendix C,"  
27 "Efficiency Requirements," B.R.C. 1981.

28 Section 11. This ordinance shall take effect January 3, 2011.

Section 12. This ordinance is necessary to protect the public health, safety, and welfare  
of the residents of the city, and covers matters of local concern.

Section 13. The City Council deems it appropriate that this ordinance be published by title only and orders that copies of this ordinance be made available in the office of the city clerk for public inspection and acquisition.

INTRODUCED, READ ON FIRST READING, AND ORDERED PUBLISHED BY  
TITLE ONLY this 1st day of June 2010.

Mayor

Attest:

City Clerk on behalf of the  
Director of Finance and Record

READ ON SECOND READING, AMENDED, AND ORDERED PUBLISHED BY  
TITLE ONLY this 7<sup>th</sup> day of September 2010.

Mayor

Attest:

City Clerk on behalf of the  
Director of Finance and Record