



DENVER AMENDMENT PROPOSAL FORM FOR PROPOSALS TO THE 2019 DENVER BUILDING CODE AMENDMENTS AND THE 2021 INTERNATIONAL CODES

DENVER
THE MILE HIGH CITY

2021 CODE DEVELOPMENT CYCLE

1) **Name:** Courtney Anderson **Date:** 3/14/2021
Email: Courtney.Anderson@denvergov.org **Representing (organization or self):**
City Staff Proposal (check box):

2) One proposal per this document is to be provided with clear and concise information.

Is a separate graphic file provided ("X" to answer): ___ Yes or No

3) Highlight the code and acronym that applies to the proposal

<u>Acronym</u>	<u>Code Name</u>	<u>Acronym</u>	<u>Code Name</u>
DBC-AP	Denver Building Code–Administrative Provisions	IPC	International Plumbing Code
IBC	International Building Code	IRC	International Residential Code
IECC	International Energy Conservation Code	IFGC	International Fuel Gas Code
IEBC	International Existing Building Code	IMC	International Mechanical Code
IFC	International Fire Code	DGC	Denver Green Code

AMENDMENT PROPOSAL

Please provide all the following items in your amendment proposal.

Code Sections/Tables/Figures Proposed for Revision:
Instructions: If the proposal is for a new section, indicate (new), otherwise enter applicable code section.

C103.2

Proposal:
Instructions: Show the proposal using ~~strikeout~~, underline format.
Place an "X" next to the choice that best defines your proposal: Revision New Text Delete/Substitute Deletion

Add the following sections and renumber the following equations:

Code Language:

Add definitions as follows:

ALL-ELECTRIC PROPERTY. *A property that contains no permanently installed equipment or appliances that utilize combustion, or plumbing for fuel gas or fuel oil, installed within the building(s) or site.*

COMBUSTION. *In the context of this code, refers to the rapid oxidation of fuel accompanied by the production of heat or heat and light.*

COMMUNITY RENEWABLE ENERGY FACILITY. A facility that produces energy harvested from renewable energy resources and is qualified as a community energy facility under applicable jurisdictional statutes and rules.

FINANCIAL RENEWABLE ENERGY POWER PURCHASE AGREEMENT. A financial arrangement between a renewable electricity generator and a purchaser wherein the purchaser pays or guarantees a price to the generator for the project's renewable generation. Also known as a "financial power purchase agreement" and "virtual power purchase agreement."

PHYSICAL RENEWABLE ENERGY POWER PURCHASE AGREEMENT. A contract for the purchase of renewable electricity from a specific renewable electricity generator to a purchaser of renewable electricity.

Modify the section as follows:

C103.2 Information on construction documents. Construction documents shall be drawn to scale on suitable material. Electronic media documents are permitted to be submitted where approved by the code official. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed, and show in sufficient detail pertinent data and features of the building, systems and equipment as herein governed. Details shall include, but are not limited to, the following as applicable:

14. System specifications for all onsite renewable energy systems and system renewable energy production calculations.
15. Calculations for and documentation of contracts for the purchase of renewable energy from all physical renewable energy power purchase agreements, financial renewable energy power purchase agreements and community renewable energy facilities.

Add new section as follows:

C405.13 Minimum renewable energy system capacity. Buildings shall be provided with an onsite renewable energy system(s) capable of producing annual renewable energy in accordance with Table C405.13.1(1). Where the building's onsite renewable system(s) provides less than 100 percent of the annual energy usage of the building, the renewable energy system(s) used to meet the requirements of Sections C404.2.1, C406.5, C406.7.2, or the Denver Green Building Ordinance shall not be used to meet the requirements of this section. System specifications and system renewable energy production calculations demonstrating that the system meets the requirements of this section shall be included in the construction documents in accordance with C103.2.

Exception: Where the building meets no less than two of the following:

1. All-electric properties
2. Buildings that achieve 74 energy efficiency credits from Table C406.1 in addition to the requirements of Section C406.1.
3. Buildings provided with an off-site renewable energy system(s) capable of producing annual renewable energy in accordance with Table C405.13.1(2) and the following:

- 3.1 For off-site solar owned by the building owner, proof of ownership and documentation of the kWh delivered each year shall be provided in order to receive the certificate of occupancy.
- 3.2 For financial renewable energy power purchase agreements and physical renewable energy power purchase agreements documentation of the following shall be provided with the construction documents:
- 3.2.1 kWh delivered each year.
- 3.2.2 The contract, subscription, lease, or purchase of a share in either a voluntary renewable energy program offered by Xcel Energy, or a renewable energy facility for which a dedicated renewable energy resource located in Public Service Company of Colorado territory is dedicated for that customer program, and which has dedicated customer capacity or energy to fulfill that customer's subscription. The term of purchase shall be no less than five (5) years and must be renewed a minimum of every five (5) years for the life of the building for purposes of compliance with this rule. In addition to self-certification of the contract the kWh delivered each year under the contract shall be reported.
The code official may request copies of contracts to verify compliance.

C405.13.1 Total building performance. Where the total building performance of Section C407 is used for compliance, the PV capacity required in this section shall be included in the *standard reference design*.

**TABLE C405.13.1(1)
MINIMUM ONSITE RENEWABLE ENERGY REQUIREMENTS**

<u>Building Type</u>	<u>Onsite Renewable Energy Production Requirement (kBtu/sf/yr)^a</u>	<u>Onsite Renewable Energy Production Requirement (kWh/sf/yr)</u>
<u>Mid-Rise Apartment (R-2) 4-7 stories</u>	<u>7.0</u>	<u>2.0</u>
<u>High-Rise Apartment (R-2) 8 or more stories</u>	<u>7.6</u>	<u>2.2</u>
<u>Small Hotel (R-1) 0-100,000</u>	<u>9.4</u>	<u>2.7</u>
<u>Large Hotel (R-1) 100,000 sf and larger</u>	<u>13.6</u>	<u>3.9</u>
<u>Medium Office (Group B) 40,000-100,000 sf</u>	<u>5.2</u>	<u>1.5</u>
<u>Large Office (Group B) 100,000 sf and larger</u>	<u>10.8</u>	<u>3.1</u>
<u>Standalone Retail (Group M)</u>	<u>7.8</u>	<u>2.3</u>
<u>Warehouse (Group S)</u>	<u>2.6</u>	<u>0.8</u>
<u>All Other</u>	<u>5.6</u>	<u>1.6</u>

a. *Or 20% of the annual energy use as calculated in accordance with Section C407.*

**TABLE C405.13.1(2)
MINIMUM OFF-SITE RENEWABLE ENERGY REQUIREMENTS**

<u>Building Type</u>	<u>Off-site Renewable Energy Production Requirement (kBtu/sf/yr)^a</u>	<u>Off-site Renewable Energy Production Requirement (kWh/sf/yr)</u>
<u>Mid-Rise Apartment (R-2) 4-7 stories</u>	<u>35</u>	<u>10.0</u>
<u>High-Rise Apartment (R-2) 8 or more stories</u>	<u>38</u>	<u>11.0</u>
<u>Small Hotel (R-1) 0-100,000</u>	<u>47</u>	<u>13.5</u>
<u>Large Hotel (R-1) 100,000 sf and larger</u>	<u>68</u>	<u>19.5</u>
<u>Medium Office (Group B) 40,000-100,000 sf</u>	<u>26</u>	<u>7.5</u>
<u>Large Office (Group B) 100,000 sf and larger</u>	<u>54</u>	<u>15.5</u>
<u>Standalone Retail (Group M)</u>	<u>39</u>	<u>11.5</u>
<u>Warehouse (Group S)</u>	<u>13</u>	<u>4.0</u>
<u>All Other</u>	<u>28</u>	<u>8.0</u>

a. *Or 100% of the annual energy use as calculated in accordance with Section C407.*

Denver Green Code

(7.3.2) On Site Renewable Energy Systems Mandatory Requirements

701.3.2 (7.3.2) On-Site Renewable Energy Systems. ~~Newly constructed buildings~~ ~~Building project design shall show allocated space and pathways for future~~ include installation of on-site renewable energy systems and associated infrastructure that provide the annual energy production equivalent of not less than the requirement from Table 701.4.1.4-0 ~~kBtu/ft² for single-story buildings and not less than 7.0 kBtu/ft² multiplied by the gross roof area in feet squared (metres squared) for all other buildings in addition to any on-site renewable production used to comply with C406 of the IECC.~~

Exceptions:

~~1. Building projects that have an annual daily average incident solar radiation available to a flat plate collector oriented due south at an angle from horizontal equal to the latitude of the collector location less than 1.2 kBtu/ft²-day (4.0 kWh/ m²-day), accounting for existing buildings, permanent infrastructure that is not part of the building project, topography, or trees.~~

Exception: Where the *building* meets no less than two of the following:

- All-electric properties*

2. Buildings that achieve 114 energy efficiency credits from Table C406.1 in addition to the requirements of Section C406.1.
3. Buildings provided with an off-site renewable energy system(s) capable of producing annual renewable energy in accordance with Table C405.13.1(2) and the following:
 - 3.3 For off-site solar owned by the building owner, proof of ownership and documentation of the kWh delivered each year shall be provided in order to receive the certificate of occupancy.
 - 3.4 For financial renewable energy power purchase agreements and physical renewable energy power purchase agreements documentation of the following shall be provided with the construction documents:
 - 3.4.1 kWh delivered each year.
 - 3.4.2 The contract, subscription, lease, or purchase of a share in either a voluntary renewable energy program offered by Xcel Energy, or a renewable energy facility for which a dedicated renewable energy resource located in Public Service Company of Colorado territory is dedicated for that customer program, and which has dedicated customer capacity or energy to fulfill that customer's subscription. The term of purchase shall be no less than five (5) years and must be renewed a minimum of every five (5) years for the life of the building for purposes of compliance with this rule. In addition to self-certification of the contract the kWh delivered each year under the contract shall be reported.

The code official may request copies of contracts to verify compliance.
4. Buildings with six or more stories above grade.

1. TABLE 701.3.1

MINIMUM RENEWABLE ENERGY REQUIREMENTS

<u>Building Type</u>	<u>Onsite Renewable Energy Production Requirement (kBtu/sf/yr)^a</u>	<u>Onsite Renewable Energy Production Requirement (kWh/sf/yr)</u>
<u>Mid-Rise Apartment (R-2) 4-7 stories</u>	<u>17.5</u>	<u>5.13</u>
<u>High-Rise Apartment (R-2) 8 or more stories</u>	<u>19</u>	<u>5.57</u>
<u>Small Hotel (R-1) 0-100,000</u>	<u>23.5</u>	<u>6.89</u>
<u>Large Hotel (R-1) 100,000 sf and larger</u>	<u>34</u>	<u>9.96</u>
<u>Medium Office (Group B) 40,000-100,000 sf</u>	<u>13</u>	<u>3.81</u>
<u>Large Office (Group B) 100,000 sf and larger</u>	<u>27</u>	<u>7.97</u>
<u>Standalone Retail (Group M)</u>	<u>19.5</u>	<u>5.72</u>
<u>Warehouse (Group S)</u>	<u>6.5</u>	<u>1.91</u>
<u>All Other</u>	<u>14</u>	<u>4.10</u>

(7.4) Prescriptive Approach (Project Elective).

(7.4.1) General Comprehensive Prescriptive Requirements. When a requirement is provided below, it supersedes the requirement in ~~ANSI/ASHRAE/IES Standard 90.1~~ the International Energy Conservation Code (IECC). For all other criteria, the building project shall comply with the requirements of ~~ANSI/ASHRAE/IES Standard 90.1~~ the International Energy Conservation Code (IECC).

~~**701.4.1.1 (7.4.1.1) On-Site Renewable Energy Systems.** Building projects shall comply with either the Standard Renewables Approach in Section 701.4.1.1.1 (7.4.1.1.1) or the Alternate Renewables Approach in Section 701.4.1.1.2 (7.4.1.1.2).~~

701.4.1.1 (7.4.1.1.1) Standard Renewables Approach: Baseline On-Site Renewable Energy Systems. Building projects shall contain on-site renewable energy systems that provide the annual energy production equivalent of not less than the requirement in Table 7.4.1.2. ~~6.0 4.0 kBtu/ft² multiplied by the horizontal~~

projection of the *gross roof area* in feet squared (metres squared) for single-story buildings, and not less than 10.0 ~~7.0~~ kBtu/ft² multiplied by the horizontal projection of the *gross roof area* in feet squared (metres squared) for all other buildings. The annual energy production shall be the combined sum of all *on-site renewable energy systems*. Documentation shall be provided to the *AHJ* that indicates that the *renewable energy certificates (RECs)* associated with the *on-site renewable energy system* will be retained and retired by the *owner*. Where the building *owner* does not have ownership of the *RECs* associated with the *on-site renewable energy system*, the *owner* shall obtain and retire an equal or greater quantity of *RECs*.

**TABLE 701.4.1
PRESCRIPTIVE RENEWABLE ENERGY REQUIREMENTS**

<u>Building Type</u>	<u>Onsite Renewable Energy Production Requirement (kBtu/sf/yr)^a</u>	<u>Onsite Renewable Energy Production Requirement (kWh/sf/yr)</u>
<u>Mid-Rise Apartment (R-2) 4-7 stories</u>	<u>26.25</u>	<u>7.69</u>
<u>High-Rise Apartment (R-2) 8 or more stories</u>	<u>28.5</u>	<u>8.35</u>
<u>Small Hotel (R-1) 0-100,000</u>	<u>35.25</u>	<u>10.33</u>
<u>Large Hotel (R-1) 100,000 sf and larger</u>	<u>51</u>	<u>14.95</u>
<u>Medium Office (Group B) 40,000-100,000 sf</u>	<u>19.5</u>	<u>5.72</u>
<u>Large Office (Group B) 100,000 sf and larger</u>	<u>40.5</u>	<u>11.87</u>
<u>Standalone Retail (Group M)</u>	<u>29.25</u>	<u>8.57</u>
<u>Warehouse (Group S)</u>	<u>9.75</u>	<u>2.86</u>
<u>All Other</u>	<u>21</u>	<u>6.15</u>

Exception: Where the *building* meets no less than two of the following:

1. All-electric properties
2. Buildings that achieve 114 energy efficiency credits from Table C406.1 in addition to the requirements of Section C406.1.
3. Buildings provided with an off-site renewable energy system(s) capable of producing annual renewable energy in accordance with Table C405.13.1(2) and the following:

3.1 For off-site solar owned by the building owner, proof of ownership and documentation of the kWh delivered each year shall be provided in order to receive the certificate of occupancy.

3.2 For financial renewable energy power purchase agreements and physical renewable energy power purchase agreements documentation of the following shall be provided with the construction documents:

3.2.1 kWh delivered each year.

3.2.2 The contract, subscription, lease, or purchase of a share in either a voluntary renewable energy program offered by Xcel Energy, or a renewable energy facility for which a dedicated renewable energy resource located in Public Service Company of Colorado territory is dedicated for that customer program, and which has dedicated customer capacity or energy to fulfill that customer's subscription. The term of purchase shall be no less than five (5) years and must be renewed a minimum of every five (5) years for the life of the building for purposes of compliance with this rule. In addition to self-certification of the contract the kWh delivered each year under the contract shall be reported.

The code official may request copies of contracts to verify compliance.

4. Buildings with six or more stories above grade.

(7.4) Prescriptive Approach (Project Elective).

(7.4.1) General Comprehensive Prescriptive Requirements. When a requirement is provided below, it supersedes the requirement in ANSI/ASHRAE/IES Standard 90.1 the International Energy Conservation Code (IECC). For all other criteria, the *building project* shall comply with the requirements of ANSI/ASHRAE/IES Standard 90.1 the International Energy Conservation Code (IECC).

701.4.1.1 (7.4.1.1) On-Site Renewable Energy Systems. *Building projects* shall comply with either the Standard Renewables Approach in Section 701.4.1.1.1 (7.4.1.1.1) or the Alternate Renewables Approach in Section 701.4.1.1.2 (7.4.1.1.2).

701.4.1.1 (7.4.1.1.1) Standard Renewables Approach: Baseline On-Site Renewable Energy Systems. *Building projects* shall contain *on-site renewable energy systems* that provide the annual energy production equivalent of not less than ~~6.0~~ 4.0 kBtu/ft² multiplied by the horizontal projection of the *gross roof area* in feet squared (metres squared) for single-story buildings, and not less than ~~10.0~~ 7.0 kBtu/ft² multiplied by the horizontal projection of the *gross roof area* in feet squared (metres squared) for all other buildings. The annual energy production shall be the combined sum of all *on-site renewable energy systems*. Documentation shall be provided to the *AHJ* that indicates that the *renewable energy certificates (RECs)* associated with the *on-site renewable energy system* will be retained and retired by the *owner*. Where the *building owner* does not have ownership of the *RECs* associated with the *on-site renewable energy system*, the *owner* shall obtain and retire an equal or greater quantity of *RECs*.

Exceptions: Buildings that demonstrate compliance with both of the following are not required to contain *on-site renewable energy systems*:

1. An annual daily average incident solar radiation available to a flat plate collector oriented due south at an angle from horizontal equal to the latitude of the collector location less than 4.0 kWh/m²-day (1.2 kBtu/ft²/day), accounting for existing buildings, permanent infrastructure that is not part of the *building project*, topography, and trees.
2. A commitment to purchase renewable electricity products complying with the Green Energy National Standard for Renewable Electricity Products, of at least 7 kWh/ft² (75 kWh/m²) of *conditioned space* each year until the cumulative purchase totals 70 kWh/ft² (750 kWh/m²) of *conditioned space*.

All-electric properties

Buildings that achieve 114 energy efficiency credits from Table C406.1 in addition to the requirements of Section C406.1.

Buildings provided with an off-site renewable energy system(s) capable of producing annual renewable energy in accordance with Table C405.13.1(2) and the following:

3.1.3.1 For off-site solar owned by the building owner, proof of ownership and documentation of the kWh delivered each year shall be provided in order to receive the certificate of occupancy.

3.2 For financial renewable energy power purchase agreements and physical renewable energy power purchase agreements documentation of the following shall be provided with the construction documents:

3.2.1 kWh delivered each year.

3.2.2 The contract, subscription, lease, or purchase of a share in either a voluntary renewable energy program offered by Xcel Energy, or a renewable energy facility for which a dedicated renewable energy resource located in Public Service Company of Colorado territory is dedicated for that customer program, and which has dedicated customer capacity or energy to fulfill that customer's subscription. The term of purchase shall be no less than five (5) years and must be renewed a minimum of every five (5) years for the life of the building for purposes of compliance with this rule. In addition to self-certification of the contract the kWh delivered each year under the contract shall be reported.

The code official may request copies of contracts to verify compliance.

5 Buildings with six or more stories above grade.

(7.5) Performance Approach (Project Elective). IECC, Section C401.2, option 3 shall not be used. *Buildings* shall comply with IECC, Section C401.2, option 1(c) with the following modifications.

1. **(7.5.1) Annual Energy Cost.** The Energy Cost Budget option IECC, Section C401.2, option 1(c)(1) shall not be used.

2. **(7.5.2) Annual Source-Site Energy.** For *buildings* that comply with IECC, IECC, Section C401.2, option 1(c)(2),

.....Column Break.....the ~~Source~~ Site Energy Index Target (SEIt) shall be calculated in accordance with the following:

$$SEIt = 0.77 \times [BBUSE + (BPF \times BBRSE)] / BBP$$

Projects must include renewable onsite energy generation whose estimated annual energy consumption exceeds 50% of the building's predicted site electricity energy use (kWh) for the year using an approved whole building energy simulation program.

Exception: Where the *building* meets no less than two of the following:

1. All-electric properties
2. Buildings that achieve 114 energy efficiency credits from Table C406.1 in addition to the requirements of Section C406.1.
3. Buildings provided with an off-site renewable energy system(s) capable of producing annual renewable energy in accordance with Table C405.13.1(2) and the following:

3.1 For off-site solar owned by the building owner, proof of ownership and documentation of the kWh delivered each year shall be provided in order to receive the certificate of occupancy.

3.2 For financial renewable energy power purchase agreements and physical renewable energy power purchase agreements documentation of the following shall be provided with the construction documents:

3.2.1 kWh delivered each year.

3.2.2 The contract, subscription, lease, or purchase of a share in either a voluntary renewable energy program offered by Xcel Energy, or a renewable energy facility for which a dedicated renewable energy resource located in Public Service Company of Colorado territory is dedicated for that customer program, and which has dedicated customer capacity or energy to fulfill that customer's subscription. The term of purchase shall be no less than five (5) years and must be renewed a minimum of every five (5) years for the life of the building for purposes of compliance with this rule. In addition to self-certification of the contract the kWh delivered each year under the contract shall be reported.

The code official may request copies of contracts to verify compliance.

4. Buildings with six or more stories above grade.

Supporting Information (Required):

All proposals must include a written explanation and justification as to how they address physical, environmental, and/or customary characteristics that are specific to the City and County of Denver. The following questions must be answered for a proposal to be considered.

- Purpose: What does your proposal achieve?

This proposal requires commercial buildings to acquire a minimum percentage (20%) of their annual energy consumption from renewable energy (or to achieve an equivalent amount of performance from Section C406 or from an offsite renewable energy resource).

- Reason: Why is your proposal necessary?

Denver's 100% Renewable Electricity Action Plan sets a goal that renewable electricity will provide 100% of new building energy use for buildings permitted under the code by 2030. XCEL has targets to provide 80% of the electrical supply on its grid from non-carbon sources by 2030. Therefore, in order to meet the Renewable Electricity Action Plan for 2030, new buildings will need to be provided with renewable energy equivalent to 20% of their annual energy use.

- Substantiation: Why is your proposal valid? (i.e. technical justification)

This proposal creates a requirement for all buildings to be provided with an onsite renewable energy system sized to provide 20% of their annual energy use. This system can be sized prescriptively with Table C405.13.1(1) or through modeling that determines the actual annual energy usage of the building. The prescriptive targets in Table C405.13.1(1) are based on the requirements for the renewable energy credit option (C406.5) in the new version of Section C406 in the 2021 edition of the IECC. C406.5 requires an onsite renewable energy sized to meet a minimum W/sf requirement, which is worth a different number of credits for different building types (due to the different energy use intensities of different building types). Table C405.13.1(1) uses those as the basis for creating a W/sf target that corresponds to 20%.

The proposal is also structured to provide alternate options for buildings that cannot physically accommodate an onsite renewable energy system that can meet these requirements. Buildings can also comply by implementing any two of the following options: all-electric construction, offsite renewable energy and additional efficiency through Section C406.

The credit target for the C406 option is set at 74 credits. This target was set because it represents the efficiency gains needed to have the same carbon emissions impact as the lifetime impact of a renewable energy system sized to meet this requirement (at the 1 credit per 0.25% performance improvement ratio used in C406, a straight efficiency conversion would have been 80 credits). Other proposals have been submitted to significantly increase the number of credit options available to Denver projects. The expanded Section C406 options will allow projects to meet the requirement through a mixture of renewable energy, electrification and efficiency.

The proposal also includes definitions and requirements for off-site renewable energy production. The off-site renewable energy requirement is based on a 5-year agreement, therefore the numbers in Table C405.13.1(2) are 5 times those in Table C405.13.1(1) in order to make the total energy comparable. It also includes definitions of different kinds of off-site renewable energy systems (based on proposals working through the 2024 IECC process) in order to provide clarity about what kind of offsite renewable energy will meet the requirement and provide certainty to the City that offsite renewable energy options are credible:

- FINANCIAL RENEWABLE ENERGY POWER PURCHASE AGREEMENT. A financial arrangement between a renewable electricity generator and a purchaser wherein the purchaser pays or guarantees a price to the generator for the project's renewable generation. Also known as a "financial power purchase agreement" and "virtual power purchase agreement."
- PHYSICAL RENEWABLE ENERGY POWER PURCHASE AGREEMENT. A contract for the purchase of renewable electricity from a specific renewable electricity generator to a purchaser of renewable electricity.
- COMMUNITY RENEWABLE ENERGY FACILITY. A facility that produces energy harvested from renewable energy resources and is qualified as a community energy facility under applicable jurisdictional statutes and rules.

The proposal also adds documentation requirements for the renewable energy systems to the documentation requirements in C103.

The exception provided for tall buildings with six or more stories above grade accommodates buildings that will typically not have sufficient roof space for onsite PV production to meet the DGC requirement. For instance, a building with a floor plate of 28,000 sf housing rooftop PV panels that typically produce 1700 kWh of electricity per kW of panel in Denver, and that occupy 100 square feet of roof space per kW of capacity, will provide about 10 kBtu/sf of site energy, which will not meet the 50% to 75% requirement for most building types.

The exception criterion for improved efficiency was revised to require an additional 40 credit points, or 10% whole building energy reduction, for the Denver Green Code.

Bibliography and Access to Materials (as needed when substantiating material is associated with the amendment proposal):

None

Other Regulations Proposed to be Affected

***For proposals to delete content from the 2019 Denver Green Code in conjunction with adding it to other mandatory Denver codes and/or regulations, only.**

Please identify which other mandatory codes or regulations are suggested to be updated (if any) to accept relocated content.

None

Referenced Standards:

List any new referenced standards that are proposed to be referenced in the code.

None

Impact:

How will this proposal impact cost and restrictiveness of code? ("X" answer for each item below)

The proposal will increase the cost of construction. However, by providing multiple options for compliance, project teams will be able to choose the option that is the most cost effective for that particular project.

Cost of construction: Increase Decrease No Impact

Cost of design: Increase Decrease No Impact

Restrictiveness: Increase Decrease No Impact

Departmental Impact (City use only):

This amendment proposal increases/decreases/is neutral to the cost of plans review.

This amendment increases/decreases/is neutral to the cost of inspections.