AGENDA ITEM or FINAL CONTRACT REVIEW SUBMITTAL FORM

Agenda Item: Resolution; Adopting of the 2015 Editions of the "

Action Requested: Board of County Commissioners' Signature

Parties to the Agreement:

Term Begins: **Term Ends:** **Grant Contract #:**

Summary:

The proposed resolution is to adopt the 2015 building codes with amendments

Fiscal Impact:

Submitted by: Crystal Lambert **Submitter's Email Address:** clambert@gunnisoncounty.org

Finance Review: ○ Required ◉ Not Required

Comments:

Reviewed by: Discharge Date:

County Attorney Review: ◉ Required ○ Not Required

Comments:
ok db 6/2/17

Reveiwed by: GUNCOUNTY1\dBaumgarten Discharge Date: 6/2/2017 Certificate of Insurance Required

Yes ○ No ◉

County Manager Review:

Comments:

Reveiwed by: GUNCOUNTY1\mbirnie Discharge Date: 6/2/2017

○ Consent Agenda ◉ Regular Agenda ○ Worksession Time Allotted: 25

Agenda Date: 6/6/2017

Revised April 2015

Gunnison County Community Development Department

Offices of Planning, Building and Environmental Health
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June 6, 2017

TO: **Board of County Commissioners**

FROM: **Crystal Lambert, Building & Environmental Health Official**

SUBJECT: **Proposed resolution to adopt 2015 building codes with amendments**

Purpose:
Staff is proposing a resolution to adopt the 2015 building codes with amendments.

Background:
Staff began looking at the 2015 building codes for use in unincorporated Gunnison County last fall and identified four provisions within the 2015 International Residential Code (IRC) that may be considered as a significant change from the provisions in the currently adopted 2009 IRC. The significant changes identified are Insulation and Fenestration Criteria (Section N1102.1.1), Air Leakage Testing (Section N1102.4.1.2), Automatic Fire Sprinkler Systems (Section R313), and Mechanical Ventilation (Section R303.4).

To better understand the effects of these provisions in our community staff held a meeting with local building industry stakeholders, on February 8, 2017, to discuss these provisions and to identify the concerns, challenges, benefits, additional costs, and overall practicality for use in unincorporated Gunnison County. With the exception of automatic residential fire sprinkler systems, the remaining items were found not to be significant or expensive changes.

Staff used the ideas and feedback gathered through the stakeholder meeting to craft a rough sketch of amendments to the 2015 building codes and then worked with the Gunnison County Planning Commission over three public meetings to examine and test the proposed amendments. The provision for automatic residential fire sprinkler systems remained the most significant challenge through the Planning Commission meeting process due to the cost of installation and maintenance, feasibility for seasonal use structures, and potential failures due to the cold climate.

The two recent work session meetings with the Gunnison County Board of County Commissioners has provided staff with an opportunity to explain and discuss the significant changes in the 2015 building codes and the amendments being proposed. This process has effectively allowed for further honing of the proposed amendments for reasonable use in our local building community.

Recommendation:
Staff is recommending the following resolution to adopt the 2015 building codes, with amendments, in unincorporated Gunnison County. The effective date will be September

1st, 2017, with a few exceptions. The exceptions are that, effective June 7, 2017, 200 square foot residential accessory structures will be allowed without a building permit, crawl spaces will not be a defined term, gross floor area will be counted from the interior of the exterior walls, and building valuations may be assessed from either the published construction cost averages or by submittal of actual building costs. Building applications received prior to September 1st, 2017 may be designed under the 2009 building codes.

In the proposed resolution, residential automatic fire sprinkler systems will be required when a one-family dwelling greater than 3,600 square feet is proposed. Townhomes and two-family dwellings, and one-family dwellings less than 3,600 square feet will not be required to install automatic fire sprinkler systems.

Additionally, air leakage testing on all new residential structures will be required, however, an air change per hour achievement will not be required at this time. Staff will be collecting feedback from homeowners and contractors about the air leakage testing and the typical results for various types of construction in order to make a recommendation in the near future for a possible revision to the provision.

BOARD OF COUNTY COMMISSIONERS
OF THE COUNTY OF GUNNISON, COLORADO
RESOLUTION NO: 17-___

A RESOLUTION ADOPTING THE 2015 EDITIONS OF THE "INTERNATIONAL BUILDING CODE", THE "INTERNATIONAL RESIDENTIAL CODE", THE "INTERNATIONAL MECHANICAL CODE", THE "INTERNATIONAL FUEL GAS CODE" AND THE "INTERNATIONAL ENERGY CONSERVATION CODE", WITH AMENDMENTS

WHEREAS, pursuant to C.R.S.§38-28-201, et. seq., the Board of County Commissioners of the County of Gunnison, Colorado (herein the "Board") previously adopted the 2003 editions of the "International Building Code", the "International Residential Code", the "International Mechanical Code", the "International Fuel Gas Code", and the "International Energy Conservation Code"; and

WHEREAS, the Board subsequently adopted the 2009 editions of the "International Building Code", the "International Residential Code", the "International Mechanical Code", the "International Fuel Gas Code", and the "International Energy Conservation Code"; and

WHEREAS, the Board has reviewed the 2015 Editions of the "International Building Code"; the "International Residential Code", the "International Mechanical Code", and the "International Fuel Gas Code"; and the "International Energy Conservation Code" (herein collectively the "2015 Building Codes"); and

WHEREAS, the Board has determined that adoption of the 2015 Building Codes with certain changes, amendments and substitutions, establish minimum requirements to safeguard the public safety, health and general welfare through affordability, structural strength, means of egress, stability, sanitation, light and ventilation, energy conservation and safety to life and property from fire and other hazards attributed to the built environment and provide safety to fire fighters and emergency responders during emergency operations; and

WHEREAS, the Gunnison County Planning Commission has reviewed and certified to the Board the 2015 Building Codes with the recommended changes, amendments and substitutions; and

WHEREAS, a public hearing on this matter was held by the Board on the _____ day of _____, 2017; and

NOW THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Gunnison County, Colorado that the following are hereby adopted for the unincorporated area of Gunnison County:

1. the "International Building Code", 2015 Edition, with the amendments as set forth in Appendix "A" attached hereto and incorporated herein, consisting of two (2) pages;

2. the “International Residential Code”, 2015 Edition, with the amendments as set forth in Appendix “B”, including “Passive Radon Gas Controls” (identified as Appendix F within the “International Residential Code”), and “Permit Fees”, (identified as Appendix L within the “International Residential Code”), and “Light Straw-clay Construction”, (identified as Appendix R within the “International Residential Code”), and “Strawbale Construction”, (identified as Appendix S within the “International Residential Code”) attached hereto and incorporated herein, consisting of four (4) pages;

3. the “International Mechanical Code”, 2015 Edition, with the amendments as set forth in Appendix “C” attached hereto and incorporated herein, consisting of one (1) page; and

4. the “International Fuel Gas Code”, 2015 Edition, with the amendments as set forth in Appendix “D” consisting of one (1) page;

5. the “International Energy Conservation Code”, 2015 Edition, with the amendments as set forth in Appendix “E” consisting of one (1) page is hereby adopted for the unincorporated area of Gunnison County effective September 1, 2017, except for Chapter 2: Definitions and Section 109.3:Building permit valuations of the 2015 International Building Code and Chapter 2: Definitions, Section 105.2: Work exempt from permit, and Section 108.3: Building permit valuations of the 2015 International Residential Code shall be effective June 7, 2017. Applications for building and mechanical permits received prior to September 1, 2017 may utilize the previously adopted 2009 Editions of the “International Building Code”, the “International Residential Code”, the “International Mechanical Code”, the “International Fuel Gas Code” and the “International Energy Conservation Code”.

The previously adopted 2009 Editions of the “International Building Code”, the “International Residential Code”, the “International Mechanical Code”, the “International Fuel Gas Code” and the “International Energy Conservation Code” are superseded, effective September 1st, 2017, by this action, except for Chapter 2: Definitions and Section 109.3:Building permit valuations of the 2009 International Building Code and Chapter 2: Definitions, Section 105.2: Work exempt from permit, and Section 108.3: Building permit valuations of the 2009 International Residential Code shall be superseded effective June 7, 2017.

INTRODUCED by Commissioner_____, seconded by Commissioner
_____, and adopted this ____ day of _____, 2017.

BOARD OF COUNTY COMMISSIONERS
OF THE COUNTY OF GUNNISON, COLORADO

By _____
Phil Chamberland, Chairperson

By _____
Jonathan Houck, Vice Chairperson

By_____
John Messner, Commissioner

ATTEST:

_____
Deputy County Clerk

ATTACHMENT A
AMENDMENTS TO 2015 INTERNATIONAL BUILDING CODE

Section 101.1 Title: Replace [Name of Jurisdiction] with the following: Gunnison County

Section 101.4.3 Plumbing: Delete entire paragraph.

Section 101.4.4 Property maintenance: Delete entire paragraph.

Section 103 Department of Building Safety: Delete entire section.

Section 105.2 Work exempt from permit: Add paragraph 14 under Building subsection:

> No permit shall be required for non-residential buildings or portions of such buildings which are agricultural structures as defined in the *Gunnison County Land Use Resolution* and are part of an agricultural operation as defined in said Land Use resolution. Requests for agricultural exemptions will be reviewed and approved by the Gunnison County Community Development Department prior to construction.

Section 105.5.1 Expiration: The following paragraph shall be added:

> All below grade excavation done in advance of construction shall be filled and made safe within thirty (30) days of an abandoned project. Where construction has advanced beyond excavation all foundation work and above grade construction shall be secured against the weather and the construction site shall be otherwise returned to that condition as existed before the permit was issued.

Section 109.2 Schedule of permit fees: Replace the entire paragraph with the following.

> On buildings, structures, or alterations requiring a permit, a fee for each permit shall be paid as requested, in accordance with Appendix L Permit Fee (2015 International Residential Code).
> 109.2.1: The Department of Regulatory Agencies, Colorado State Electrical Board and Colorado State Plumbing Board are responsible for electrical and plumbing fees, permits and inspections.

Section 109.3 Building permit valuations: The following paragraph shall be added:

> In order to determine valuation for the various types of construction, building permit valuation may be established according to the Building Valuation Data schedule as set forth in the most recent issue, at the time of the issuance of the building permit, of the Building Safety Journal, published by the International Code Council.

Section 109.4 Work commencing before permit issuance: Replace paragraph with the following:

> Any person who commences work before obtaining the necessary permits shall be subject to 100 percent (100%) of the building permit and plan review fees in addition to the required permit fees.

Section 109.5 Related fees: Add the following section:

Section 109.5.1 Plan review fees: A plan review fee shall be paid to cover the cost of review by Gunnison County Community Development Department. The plan review fee shall be 65% of the building permit fee. Additional plan review required by changes, additions or revisions to plans shall be charged a fee of $150.00 and review time beyond two hours shall be assessed at a rate of $100 per hour. If an independent plan review is required by the Building Official, the actual cost of such review along with administrative costs assessed at a rate of $75.00 per hour will be charged.

Section 109.6 Refunds: Add the following refund policy:

The Building Official is authorized to refund building permit fees as follows.

1. The full amount of any fee paid hereunder which was erroneously paid or collected.
2. Not more than 80% of the building permit fee paid when no work has been done under a permit.

The Building Official is not authorized to refund any fee paid, except upon written application by the original permittee not later than 180 days after the date of fee payment.

Section 109.7 Re-inspection fees: Add section and paragraph.

A fee for re-inspection will be calculated at $75 per hour plus mileage to and from the site. Re-inspection fees will be due before the certificate of occupancy is issued.

Section 504.3 Height in feet: Add the following paragraph:

The provisions of this building code notwithstanding, no building may exceed the height limitations set forth in the Gunnison County Land Use Resolution. Section 13-103 H: *Allowed Structure Heights*.

Section 1608.2 Ground snow loads: Delete entire paragraph and replace with the following:

The value of roof (or other member) snow load shall be equal to the "recommended basic snow load" as defined in "2016 Snow Load Design Data for Colorado", prepared and published by the "Structural Engineers Association of Colorado".

ATTACHMENT B
AMENDMENTS TO 2015 INTERNATIONAL RESIDENTIAL CODE

Section R101.1 Title: Replace [Name of Jurisdiction] with the following: Gunnison County

Section R103 Department of Building Safety: Delete entire section.

Section R105.2 Work exempt from permit: Amend.

1. In paragraph 1 add the words "and is in compliance with the current Gunnison County Land Use Resolution at the time of construction".
2. Delete entire section referring to Electrical (1-5).

Section R105.5.1 Expired work: Add Section.

All below grade excavation done in advance of construction shall be filled and made safe within thirty (30) days of an abandoned project. Where construction has advanced beyond excavation all foundation work and above grade construction shall be secured against the weather and the construction site shall be otherwise returned to that condition as existed before the permit was issued.

Section R108.2 Schedule of permit fees: Replace entire paragraph with the following.

On buildings, structures, or alterations requiring a permit, a fee for each permit shall be paid as requested, in accordance with Appendix L Permit Fee (2015 International Residential Code).

R108.2.1: The Department of Regulatory Agencies, Colorado State Electrical Board and Colorado State Plumbing Board are responsible for electrical and plumbing fees, permits and inspections.

Section R108.3 Building permit valuations: The following paragraph shall be added.

In order to determine valuation for the various types of construction, building permit valuation may be established according to the Building Valuation Data schedule as set forth in the most recent issue, at the time of the issuance of the building permit, of the Building Safety Journal, published by the International Code Council.

Section R108.4 Related fees: Add the following sections:

108.4.1 Plan review fees: A plan review fee shall be paid to cover the cost of review by Gunnison County Community Development Department. The plan review fee shall be 30% of the building permit fee. Additional plan review required by changes, additions or revisions to plans shall be charged a fee of $150.00 and review time beyond two hours shall be assessed at a rate of $100 per hour. If an independent plan review is required by the Building Official, the actual cost of such review along with administrative costs assessed at a rate of $75.00 per hour will be charged.

108.4.2 Application fee: A non-refundable application fee of $250.00 is due at the time of application submittal and is to be applied to the building permit fee at the time of issuance. The $250.00 Application fee will be forfeit if the permit is not issued within 12 months of the application submittal date. Residential accessory structures are exempt from the application fee.

Section R108.5 Refunds: Add the following refund policy:

The Building Official is authorized to refund building permit fees as follows.

1. The full amount of any fee paid hereunder which was erroneously paid or collected.
2. Not more than 80% of the building permit fee paid when no work has been done under a permit.

The Building Official is not authorized to refund any fee paid, except upon written application by the original permittee not later than 180 days after the date of fee payment.

Section R108.6 Work commencing before permit issuance: Replace entire paragraph with the following.

Any person who commences work before obtaining the necessary permits shall be subject to 100 percent (100%) of the usual permit fee in addition to the required permit fees.

Section R108.7 Re-inspection fees: Add section and paragraph.

A fee for re-inspection will be calculated at $75 per hour plus mileage to and from the site. Re-inspection fees will be due before the Certificate of Occupancy is issued.

Section R113.1 Unlawful acts: The following paragraph shall be added.

Before any building or structure may be moved into or within an unincorporated part of Gunnison County, a building permit shall be issued therefore in the same manner as for a new building or new construction. The cost for such a permit shall be based upon the Building Official's estimate of the probable cost involved and which will be necessary in order to make the building or structure comply with all the requirements for new buildings or structures in that area. In the event the owner shall not have taken steps necessary to make the building or structure comply with requirements of the Building Code within the period of time for which the permit was issued, then and in that event the building shall be removed from the premises at the expense of the owner and upon the order or demand of the Community Development Department. The Building Official may refuse to issue a permit to move, remove or repair any such building or structure which, in their opinion, cannot be brought into compliance with the Building Code and which, even repaired, will be structurally unsafe.

Section R301.1.1 Height limitations: Add section and the following paragraph.

The provisions of this building code notwithstanding, no building may exceed the height limitations set forth in the Gunnison County Land Use Resolution. Section 13-103 H: Allowed Structure Heights.

Table R301.2(1) Climatic and geographic design criteria: Amend to add the following values in the spaces provided.

Ground Snow Load: Varies. The value of roof (or other member) snow load shall be equal to the "recommended basic snow load" as defined in the "2016 Colorado Design Snow Loads", prepared by the "Structural Engineers Association of Colorado". ASCE 7 procedures shall be used to convert to roof snow loads.

Wind Design:

Speed (mph):115 (ultimate design wind speed)
Topographic effects: no
Special wind region: no
Wind-borne debris zone: no

Seismic design category: B for site soil classification D

Subject to damage from:

Weathering: Severe
Frost line depth: 36 inches
Termite: none to slight

Winter Design Temp: -20F

Ice Barrier Underlayment Required: Yes

Flood Hazard: 1989, Resolution 89-31, 2011 FIRM maps

Air Freezing Index: 3447 (BF-days-100year)

Mean Annual Temp: 37.2F

Section R302.3 Two-family dwellings: Replace the first sentence with the following: Dwelling units in two-family dwellings shall be separated from each other by wall and floor assemblies having not less than a 2-hour fire-resistance rating where tested in accordance with ASTM E 119 or UL 263.

Section R302.5.1 Opening protection: Add following sentence at end of paragraph. These doors shall be tight fitting to prevent exposure from potential garage carbon monoxide gases.

Section R303.3 Bathrooms: Amend to read as follows.

Bathrooms, water closet compartments, and other similar rooms shall be provided with mechanical ventilation that exhausts directly to the outside. The minimum ventilation rates shall be 50 cubic feet per minute for intermittent ventilation or 20 cubic feet per minute for continuous ventilation. The ventilation fan shall be located on an interior wall within 18 inches of the highest ceiling. The ventilation system shall not vent through a roof. Bathrooms that contain only a water closet, lavatory, or combination thereof and similar rooms may be ventilated with an approved mechanical re-circulating fan or similar device designed to remove odors from the air.

Section R313 Automatic Fire Sprinkler Systems:

Section R313.1 Townhouse automatic fire sprinkler systems: Delete the entire section.

Section R313.2 One- and two-family dwellings automatic fire sprinkler systems: Delete the first sentence and replace with the following:

An automatic residential fire sprinkler system shall be installed in one-family dwellings when the Gross Floor Area exceeds 3,600 square feet.

Section N1102.4.1.2 (R402.4.1.2) Testing: Delete the first sentence and replace with the following:

The building or dwelling unit shall be tested.

Section G2406.2 Prohibited locations: Delete exceptions 3 and 4.

Section G2425.8 Appliances not required to be vented: Delete item number 7.

Section G2445 Unvented room heaters: Delete all paragraphs (Sections G2445.1-G2445.7) and add the following.

> Section G2445 Unvented room heaters prohibited: Unvented room heaters utilizing fuel combustion are prohibited in all locations throughout all occupancies.

Appendix F Passive Radon Gas Controls: Include the entire section.

Appendix L Permit Fees: Include the entire section.

Appendix R Light Straw-clay Construction: Include the entire section.

Appendix S Strawbale Construction: Include the entire section.

ATTACHMENT C
AMENDMENTS TO 2015 INTERNATIONAL MECHANICAL CODE

Section 106.5.2 Fee schedule: Replace the entire section with the following:

A permit shall not be valid until all fees prescribed by the most current Gunnison County Community Development fee schedule are paid in full, nor shall an amendment to the permit be released until the additional fees, if any, have been paid.

Section 106.5.3 Fee refunds: Replace #2 with the following and delete #3.

2. Not more than 80 percent of the permit fee paid when no work has been done under a permit issued in accordance with this code.

Section 109 Means of appeal: Replace the entire section with the following:

Section 109.1 Appeals shall be in accordance with 2015 IBC Section 113 as amended.

Section 903.3 Unvented gas log heaters: Replace the entire paragraph with the following:

Unvented gas log heaters are prohibited in all location throughout all occupancies.

ATTACHMENT D
AMENDMENTS TO 2015 INTERNATIONAL FUEL GAS CODE

Section 106.6.2 Fee schedule: Replace the entire section with the following.

A permit shall not be valid until all fees prescribed by the most current Gunnison County Community Development fee schedule are paid in full, nor shall an amendment to the permit be released until the additional fees, if any, have been paid.

Section 106.6.3 Fee refunds: Replace #2 with the following and delete #3.

2. Not more than 80 percent of the permit fee paid when no work has been done under a permit issued in accordance with this code.

Section 109 Means of appeal: Replace the entire section with the following:

Section 109.1 Appeals shall be in accordance with 2015 IBC Section 113 as amended.

Section 303.3 Prohibited locations: Delete exception 3 and 4.

Section 501.8 Appliances not required to be vented: Delete item number 8 and 10.

Section 621 Unvented room heaters: Delete all paragraphs (section 621.1 through 621.7) and replace with the following:

Section 621 Unvented room heaters prohibited:
Unvented room heaters utilizing fuel combustion are prohibited in all location throughout all occupancies.

ATTACHMENT E
AMENDMENTS TO 2015 INTERNATIONAL ENERGY CONSERVATION CODE

Section C101.1 Title: Replace [Name of Jurisdiction] with the following: Gunnison County

Section C408.2 Mechanical systems and service water-heating systems commissioning and completion requirements, Exception 1: Replace paragraph with the following:

1. Mechanical systems and service water heater systems in buildings where the total mechanical equipment capacity is less than 600,000 Btu/h combined service water-heating or space-heating capacity or 480,000 Btu/h cooling capacity.

Section R101.1 Title: Replace [Name of Jurisdiction] with the following: Gunnison County

Section R202 General Definitions: Replace the definition of Residential Building with the following:

Residential Building. For this code, includes all residential structures that are not detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plan in height, and required to comply with the *International Residential Code*.