2023 PIKES PEAK REGIONAL BUILDING CODE

PUBLIC COMMENT ROUND TWO

The following comments were received during the Departments public comment period from October 1, 2022 through October 31, 2022.

INDEX OF COMMENTS

2023 PPRBC CHAPTER 1 ADMINISTRATION INCLUDING APPENDIX A & B.

I-1: Vanessa Redmond

Submit Date: 10/01/2022 5:14 PM

Comment I-1-1

-See following page.

Pikes Peak REGIONAL Building Department

CODE CHANGE PROPOSAL FORM

Type of Change: New Proposed Amendment

PPRBC Chapter: Chapter 1 - Administration

Code Section: RBC105.1 PERMITS REQUIRED.

Person requesting change: Vanessa Redmond Organization:

Contact email: ask_mgmt@msn.com

Original code text:

A permit is also required to
install, replace, or repair any electrical, gas,
mechanical or plumbing system regulated by this
Code

Proposed code text:

A permit is also required to install, move, or replace, any electrical, gas, mechanical or plumbing system regulated by this Code and said permit must be attached to a PPRBD contractor's or homeowner's permit to erect, construct, enlarge, alter, repair, move, improve, remove, change in occupancy, or demolish.

Reason for change:

Currently we are aware of unlicensed "contractors" that are doing bathroom, and other remodels that involve the removal and installation of walls, moving of drains and addition of water lines. These " contractors" have the plumber or electrician pull the permit. The remodel is never on the books, only the MEP permits. Homeowners are at a disadvantage because there are no final project inspections (in these cases only the MEP is inspected) and often code requirements (like smoke detectectors) are missed because there is no oversight of the entire project. Additionally, licensed contractors who do the right thing and permit these projects, are competing with tilers and unlicensed remodelers who skirt the process. This creates an uneven playing field. A change in the language requiring MEP to attach to a licensed project would prevent this and provide the necessary oversight to ensure code compliance.

Cost impact: No Impact to Cost

Explanation of impact:

I do not believe this impacts cost because these projects are supposed to be permitted. The change in language just ensures that they are.

2880 International Cr., Colorado Springs, CO 80910 • Telephone 719-327-2880 • www.pprbd.org

Response to I-1-1

RBD has a process in place for those aware of unlicensed contractors performing work. Complaints may be filed with our non-compliance department in cases such as these.

Response to I-1-1

Comment considered in Board of Review on 11-9-22. Code as written works for this aspect as code requires a permit for everything with exceptions to permit requirements found in RBC 105.2. Current process already exists for notification to RBC about unlicensed contractors.

I-2: C. Redo

Submit Date: 10/14/2022 12:25 PM

Comment I-2-1

RBC105.3 Application for Permits and RBC109.1 Inspections say nothing about penalizing one contractor's permit and inspection due to another contractor's lack of either pulling a permit or passing an inspection. There is no reason to partial an inspection rather than a complete because the inspector says another contractor either needs to attach to the permit or pull their own permit for some issue completely unrelated to our trade and our permit and inspection.

I did not read the code in its entirety, but in those two sections above where this issue should be covered, there was nothing giving PPRBD the right to penalize a contractor based on another contractor's deficiency. Use your right to issue a stop work order instead if you want another contractor to do something - getting another contractor to pull the proper permit is not our job and should not affect our inspection.

Also, why don't well companies have their own plumbing licenses and permits? When a new home is being installed, the well water and inspection fall under the plumber for the house which are two completely separate companies. We have no control over the well company and what they install, nor the potable water testing. We can't get finals on the inside plumbing of the house until they do their job - again, as above - completely separate companies with separate duties tied together according to PPRBD. Please require a separate permit and inspection from the well company for the work they do and keep the inside house plumber's license out of it.

Response to I-2-1

RBD response: This operational process is in place in one aspect to ensure that no work requiring inspection is covered up prior to other required permits or attachments is in place.

Response to I-2-1

Comment considered by Board of Review on 11-9-2022 with no change in 2023 PPRBC V2.1 code language.

2023 PPRBC CHAPTER 2 CONTRACTOR LICENSING

I-1: Jeffrey Martin

Submit Date: 10/25/2022 2:15 PM

Comment I-1-1

RBC207.10-RBC207.14 I agree with the testing through an state approved testing agency as long as the tests are based on the current state adopted NFPA code editions and passed every three years.

EXECPTION
Any certification/license that requires CEU/CPD and is renewed every 3 years should also be exempt of testing. Any certification/license with a renewal greater than 3 years or does not require CEU/CPD for renewal should be required to take the test through the approved state testing agency and achieving a passing score.

Response to I-1-1

This comment was reviewed by CSFD but not accepted.

Response to I-1-1

Comment considered by Board of Review on 11-9-2022 with appearance from CSFD and determined no change to be made in 2023 PPRBC V2.1 code language.

C-1: Western States Fire Protection, Jin Kim

Submit Date: 10/19/2022 3:50 PM

Comment C-1-1

Request adding the following for RBC208. This was discussed with Colorado Springs Fire and the Fire Alarm Commitee.

Fire Alarm Inspector. The
Fire Alarm Inspector is a skilled worker employed
by a Fire Alarm Contractor A who is qualified
to ensure proper testing and inspection of fire alarm system in
accordance with the standards set by the Fire
Authority.

Scope of Certification: The Fire Alarm Inspector Certification allows the individual to test and inspect fire alarm systems of all types. This certification does not permit the installation, repairs, programming, or alteration of the fire alarm system beyond the replacement of batteries and or field devices without the removal of wiring of the SLC, NAC and IDC circuits.

Response to C-1-1

This comment was reviewed and accepted by CSFD and RBD. The 2023 PPRBC has been updated to show this change in new section RBC 208.7 - 208.7.6.

Response to C-1-1

This comment was considered by Board of Review on 11-9-22 along with appearance from CSFD. This comment has been accepted by Board of Review and incorporated into 2023 PPRBC V2.1.

C-2: Jeremy Lientz

Submit Date: 10/19/2022 4:14 PM

Comment C-2-1

RBC207.14.3. Examination. An applicant shall have the option obtain a minimum of NICET Level II certification in Testing and Inspection of Water-Based Systems or take an approved exam with a passing score as determined by the approved testing agency. After review and approval from the Colorado Springs Fire Department, the applicate shall receive a current certificate.

Response to C-2-1

This comment has been reviewed and accepted by RBD and CSFD. 2023 PPRBC has been edited to allow for NICET certification in RBC 207.14.3.

Response to C-2-1

This comment was considered by Board of Review on 11-9-22 along with appearance from CSFD. This comment has been accepted by Board of Review and incorporated into 2023 PPRBC V2.1.

2023 PPRBC CHAPTER 3 CONSTRUCTION CODES SECTION 302 COMMERCIAL BUILDING CODE

I-1: David Sparks

Submit Date: 10/03/2022 1:17 PM

Comment I-1-1

RBC302.4.50 - Section 1609.3

Appeal to board's decision made on the previous round of public comment. During this session there were comments made regarding wind data obtained justifying the current design wind speed (130 mph ULT). This data was not presented to me prior to the meeting in order to adequately address it during the meeting. Additionally, with only 3 minutes and time running out on the meeting session it did not appear that there was adequate time for rebuttal or further discussion.

In my opinion, it appeared that the board based their decision on the representation of this alleged wind data from the past few years as well as a conversion of that data to match the mapped speeds. After the meeting, I obtained the data - which turned out to be two news stories from local stations - that was referred to during the meeting as well as gathering my own research using the data from the Colorado Springs Airport (COS) anemometer as posted by NOAA. The NOAA data shows that the reported wind speeds do not correspond to the design wind speed of 130 mph as it was presented at the public comment meeting. In fact, it shows that the COS airport was used as a part of the new wind speed maps referred to by the next version of the PPRBD. In summary, it shows that even using the 110 mph wind speed that I suggested (code actually allows 106 mph) instead of the current wind speed of 130 mph saves 40% of the load on the lateral system. Or, in other words, all structures are being overdesigned by 40% when using 130 mph.

I would like the opportunity to present the attached powerpoint presentation at the next public comment to help educate the board on the specific changes that have been made to the building code that they are adopting, which includes ASCE7-16 by reference. Most importantly that Colorado Springs and El Paso County are no longer considered special wind regions as defined by ASCE7-16 which is based on data obtained directly from the COS airport in the attached NIST.SP.500-301r.pdf report. -See Appendix 1.0 for Attachements-

Response to I-1-1

Current Design Wind Speed in PPRBD's Jurisdiction is 130 mph (Vult). This is equivalent to the Vnom wind speed of 101 as used in previous versions of ASCE 7. Portions of PPRBD's jurisdiction were located in a Special Wind Region based on maps within ASCE 7. Understanding that the

maps have been updated and revised, PPRBD's opinion is that our current design wind speeds are acceptable for this area and no change to this section of the code is warranted.
In a 2006 study performed by CPP Wind Consultants, the front range along Interstate 25, from the Wyoming State Line to a point just south of Denver was analyzed. The resulting wind speed contour maps show design speeds within the urban areas of Denver ranging from 90 mph to 110 mph, with wind speeds increasing in the foothills to 120 and 130 mph. These proposed design values were all based on the Vnom design wind speeds and justify PPRBD's use of 130 mph Vult as our jurisdiction includes terrain that is very similar to that of the western Denver area.

Response to I-1-1

Comment considered by Board of Review on 11-9-2022 with no change in 2023 PPRBC V2.1 code language.

I-2: Michael Augenstein

Submit Date: 10/18/2022 10:19 AM

Comment I-2-1

Add a footnote to table 504.4 for U occupancy private parking garages to allow for (2) story NS and (3) story S to align with S-2 parking garages. This also follows the logic of allowing a (1)-hr. occupancy separation for U private parking garages in table 508.4.

Response to I-2-1

RBD response: This proposal has already been addressed in version 1.0 of the 2023 PPRBC. See section RBC302.4.7.

Response to I-2-1

Comment considered by Board of Review on 11-9-2022 with no change in 2023 PPRBC V2.1 code language.

D-1: Tyler Allen, Tyler Allen

Submit Date: 10/19/2022 8:50 AM

Comment D-1-1

RBC302.4.60 Section 1806. PRESUMPTIVE LOAD-BEARING VALUES OF SOILS Delete. The presumptive load-bearing values of soils should not be deleted as this section is often used for small projects or risk category I projects where the client cannot afford a soils report or is willing to take on the risk of not having a soils report. I would suggest that the new PPRBD at least have a provision that allows for a 1500 psf bearing capacity design unless there is data to substantiate the use of higher values (that data must be submitted and approved). This is

similar to what is in the current residential code which allows for 1500 psf bearing capacity design if no soils data or report is available.

Response to D-1-1

RBD Response: Due to the charging language of 2021 IBC 1803.2 all commercial projects would require a soils report and therefore specify presumptive load-bearing value. Commercial projects carry a higher level of requirement due to the nature of the occupancy classification and type of construction associated. Board of Review to hear this comment and discuss on 11-9-22.

Response to D-1-1

Comment considered by Board of Review on 11-9-2022 with no change in 2023 PPRBC V2.1 code language.

2023 PPRBC CHAPTER 3 CONSTRUCTION CODES SECTION 303 RESIDENTIAL BUILDING CODE

I-1: Glenn Brooke

Submit Date: 10/17/2022 3:13 PM

Comment I-1-1

R405.3 Foundation drainage systems. Current draft copy states a sump pit can be 20 square inches, I believe it was meant to say 20 inches square (400 square inches).

Response to I-1-1

RBD response: to mirror the model code the verbiage would need to read 20 inches square in lieu of 20 square inches. This has been reviewed and accepted by RBD to change verbiage to match model code.

Response to I-1-1

This comment was considered by Board of Review on 11-9-2022. 2023 PPRBC V2.1 verbiage has been adjusted to match model code.

I-2: Glenn Brooke

Submit Date: 10/17/2022 5:25 PM

Comment I-2-1

RBC303.4.5 TABLE R302.1(1) EXTERIOR
WALLS The word separate is mis-spelled.

Definition of Spiral Staircase would include Circular Staircases which shouldn't need or want the relaxed riser height or headroom reduction allowed by spirals.

Response to I-2-1

RBD: spelling will be corrected in RBC303.4.5.

Response to I-2-1

This spelling correction has been adjusted in 2023 PPRBC v2.1.

D-1: Felten Group, Inc., David Sparks

Submit Date: 10/03/2022 1:18 PM

Comment D-1-1

RBC303.4.2 - Table R301.2

Appeal to board's decision made on the previous round of public comment. During this session there were comments made regarding wind data obtained justifying the current design wind speed (130 mph ULT). This data was not presented to me prior to the meeting in order to adequately address it during the meeting. Additionally, with only 3 minutes and time running out on the meeting session it did not appear that there was adequate time for rebuttal or further discussion.

In my opinion, it appeared that the board based their decision on the representation of this alleged wind data from the past few years as well as a conversion of that data to match the mapped speeds. After the meeting, I obtained the data - which turned out to be two news stories from local stations - that was referred to during the meeting as well as gathering my own research using the data from the Colorado Springs Airport (COS) anemometer as posted by NOAA. The NOAA data shows that the reported wind speeds do not correspond to the design wind speed of 130 mph as it was presented at the public comment meeting. In fact, it shows that the COS airport was used as a part of the new wind speed maps referred to by the next version of the PPRBD. In summary, it shows that even using the 110 mph wind speed that I suggested (code actually allows 106 mph) instead of the current wind speed of 130 mph saves 40% of the load on the lateral system. Or, in other words, all structures are being overdesigned by 40% when using 130 mph.

I would like the opportunity to present the attached powerpoint presentation at the next public comment to help educate the board on the specific changes that have been made to the building code that they are adopting, which includes ASCE7-16 by reference. Most importantly that Colorado Springs and El Paso County are no longer considered special wind regions as defined by ASCE7-16 which is based on data obtained directly from the COS airport in the attached NIST.SP.500-301r.pdf report. -See Appendix 1.0 for Attachements-

Response to D-1-1

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In a 2006 study performed by CPP Wind Consultants, the front range along Interstate 25, from the Wyoming State Line to a point just south of Denver was analyzed. The resulting wind speed contour maps show design speeds within the urban areas of Denver ranging from 90 mph to

110 mph, with wind speeds increasing in the foothills to 120 and 130 mph. These proposed design values were all based on the Vnom design wind speeds and justify PPRBD's use of 130 mph Vult as our jurisdiction includes terrain that is very similar to that of the western Denver area.

Response to D-1-1

This comment was considered by Board of Review on 11-9-2022. Determination was made to leave current code as proposed without modification.

2023 PPRBC CHAPTER 3 CONSTRUCTION CODES SECTION 304 MECHANICAL CODE

No comments received.

2023 PPRBC CHAPTER 3 CONSTRUCTION CODES SECTION 305 FUEL GAS CODE

No comments received.

2023 PPRBC CHAPTER 3 CONSTRUCTION CODES SECTION 306 PLUMBING CODE

No comments received.

2023 PPRBC CHAPTER 3 CONSTRUCTION CODES SECTION 307 ELECTRICAL CODE

No comments received.

2023 PPRBC CHAPTER 3 CONSTRUCTION CODES SECTION 308 ENERGY CONSERVATION CODE

I-1: Judith Rice-Jones

Submit Date: 10/17/2022 7:59 PM

Comment I-1-1

Given our current climate emergency, it is imperative that we use every tool available to decrease reliance on fuels contributing to our growing air pollution. Adopting the latest code would insure that new builds would provide cleaner energy both within and outside of buildings. The cost savings would also accrue to the building owner or residents while improving air quality in our region. To this mother and grandmother seems like an easy decision for the health and wellbeing of our community, which PPRBD exists to serve. Thanks for your attention to my concerns. Judith Rice-Jones, M.A., M.L.I.S.

Response to I-1-1

RBD response: no specific code related comments, public opinion to adopt latest edition of code to decrease consumption of fossil fuels.

Response to I-1-1

This comment was considered by Board of Review on 11-9-2022. Determination was made to leave current code as proposed without modification.

I-2: Kort Henderson

Submit Date: 10/18/2022 1:04 PM

Comment I-2-1

RBC308.4.17 & RBC308.4.18: Tables R402.1.2 & R402.1.3
I support these amendments.
It's true, the 2021 IECC insulation tables create a better insulated house than the tables shown in the proposed amendments. The amendments will allow houses which use more energy than an un-amended 2021 IECC code would permit. While the amendments are not as restrictive as the 2021 IECC, they create a reasonable steppingstone between the current code and the future. Other than the Fenestration U-Factor*, the amendments set the insulation tables at levels consistent with the 2018 IECC. However, the amendments do not remove many of the other efficiency requirements set forth in the new IECC.

Below is a partial list of the efficiency improvements in proposed 2023 RBC compared to the current regional building code:

1. New sections R401.2.5 & R408 of the 2021 IECC are not changed by any RBC amendments. These new sections will require one of the following for every house:
-Additional 5% efficiency (If using the Total Building Performance or ERI options).
-Enhanced envelope performance.
-More efficient HVAC equipment performance.
-Reduced energy use in service water-heating.
-More efficient duct thermal distribution system.
-Improved air sealing and efficient ventilation system.

2. Insulation tables: Basement Wall R-Value increased to R-19 batt, R-15 continuous, or R-13 batt plus R-5 continuous. This matches 2021 IECC levels. Previously the 2017 RBC allowed for R-13 batt or R-10 continuous (2017 RBC308.4.13).

3. Stricter requirements for air leakage in 2021 IECC, which are not amended by RBC. Using the Prescriptive path, R402.4.1.3 states that the air leakage rate cannot exceed 3.0 ACH50 (Air changes per hour at 50 Pa). For the Total Building Performance option, Table R405.4.2(1) states that the air exchange rate of the "Standard Reference Design" is also 3.0 ACH50. Previously, an amendment in the 2017 RBC allowed 5.0 ACH50 (2017 RBC308.4.15). It should be noted, that with the Total Building Performance option, up to a 5.0 ACH50 will be allowed (2021 IECC R402.4.1.2), but significant additional energy efficiency measures would be required to make up for any air leakage over 3.0 ACH50. This greatly increases the efficiency, because homes that are more airtight reduce heat transfer via uncontrolled air movement and can better maintain thermal comfort.

So, the proposed code still brings substantial improvements in energy efficiency. But instead of a massive leap to the 2021 IECC, this gives our community a bridge between the current requirements and the energy conservation codes we'll have in the very near future. Yes, extra insulation would cause further reductions to heat flow. But the insulation levels shown in the amendments were considered sufficient in the previous three IECC codes. So, accounting for the increased costs, I believe any additional insulation should be a choice not a requirement in this RBC adoption.

These tables don't just dictate the insulation required for houses built using the Prescriptive Compliance method, but they also affect the Total Building Performance option. IECC Table R405.4.2(1) references Table R402.1.2 for the U-factors to be used for the "Standard Reference Design". So, the required home efficiency for this compliance method will also be heavily impacted by the insulation requirements from the tables.

*Fenestration U-Factor in 2023 RBC insulation tables is at 2015 IECC level.

Response to I-2-1

RBD: this comment is in support of the current amendments as proposed.

Response to I-2-1

This comment was considered by Board of Review on 11-9-2022. Determination was made to leave current code as proposed without modification.

I-3: Kort Henderson

Submit Date: 10/18/2022 1:23 PM

Comment I-3-1

RBC308.4.20: Section R404.1
This section of the 2015 IECC (and thus current RBC) allowed a 25% allowance for light sources that didn't meet the definition of High-Efficacy Lighting. Then the 2018 IECC allowed a smaller 10% allowance. In the 2021 update, the definition for High-Efficacy lighting made the requirements stricter than they were in 2015 & 2018. This increased efficacy requirement makes a small 10% allowance for decorative lighting even more significant, since fewer decorative light sources will qualify as High-Efficacy under the 2021 code. I support this amendment because it allows home buyers a little freedom when choosing a few of their decorative light sources.

Response to I-3-1

RBD: this comment is in support of the current amendments as proposed to allow 10% allowance for light sources to not be required to be high efficacy.

Response to I-3-1

This comment was considered by Board of Review on 11-9-2022. Determination was made to leave current code as proposed without modification.

I-4: Kort Henderson

Submit Date: 10/18/2022 1:48 PM

Comment I-4-1

RBC308.4.21: Section R404.2
I support this amendment.
In the 2021 update, the definition for High-Efficacy lighting made the requirements stricter than they were in 2015 & 2018. Now these light sources are even more efficient than traditional ones, so dimmers or occupancy sensors for these light sources will have a smaller impact on energy usage. These controls could still be added by choice, they just wouldn't be required by code.

Response to I-4-1

RBD: this comment is in support of the current amendments as proposed as added in by Board of Review in the 1st work session.

Response to I-4-1

This comment was considered by Board of Review on 11-9-2022. Determination was made to leave current code as proposed without modification.

I-5: Chris Jensen

Submit Date: 10/19/2022 12:11 PM

Comment I-5-1

RBC308.4.17 & RBC308.4.18: Tables R402.1.2 & R402.1.3
I support these amendments because they allow for options and ultimately positive alternatives towards the unnecessarily restrictive 2021 IECC insulation requirements. This abrupt change from our current insulation requirements to the 2021 IECC values demands a significant cost increase for buyers. The proposed amended 2018 IECC insulation requirements create a efficient comfortable home, but with a less significant cost increase to the buyer. To help foster housing affordability, I encourage this intermediate step.
RBC308.4.19: Section R402.4.6
I support this amendment. Stringent air leakage testing is performed to ensure a adequate house envelope. Mandating insulated outlet boxes when a house pass these tests is simply over kill and not necessary and further contributes to added costs and potential supply issues.
RBC308.4.20: Section R404.1
I support this amendment giving a small 10% allowance for Non-High-Efficacy Lighting will give homeowners some options for lighting design with an insignificant impact to energy conservation.

Response to I-5-1

RBD: this comment is in support of the current amendments as proposed.

Response to I-5-1

This comment was considered by Board of Review on 11-9-2022. Determination was made to leave current code as proposed without modification.

I-6: Kort Henderson

Submit Date: 10/27/2022 10:49 AM

Comment I-6-1

Reaction to Public Comment from Colorado Springs Utilities submitted by Gabriel Caunt.

Below are comments to several of the recommendations proposed by Colorado Springs Utilities (CSU). While acknowledging their valid concerns, I think there might be better solutions available which don't require alterations to the proposed 2023 PPRBC.

CSU Recommendation 1:
Putting a 3-year expiration date on RBC308.4.17 & RBC308.4.18 (Tables R402.1.2 & R402.1.3) could cause confusion and may even require a separate code adoption. For master plans submitted to RBD, it will probably require a new point revision for most plans, because many won't be designed to handle that much insulation. If the plan is already designed for it, a splice of all HVAC design documents will still be required.
In June of this year, the state passed House Bill 22-1362, which will lead to a state mandated acceptance of the 2021 or 2024 IECC in just a few short years. With the desired efficiency increase coming so soon, why should we complicate things with a mid-cycle code change that has huge cost and time implications for homebuyers, builders, and the building department? The IECC codes caused great leaps in energy efficiency between 2006 and 2012. I understand CSU's concerns about the systemwide usage of natural gas. But, the 2023 PPRBC is far more stringent than the 2006 & 2009 IECC editions, so it might be better to focus on homes built before the 2017 PPRBC. Perhaps by incentivizing homebuyers to swap existing equipment with more efficient replacements.

CSU Recommendation 3:
This recommendation goes against the design flexibility intended by the 2021 IECC, adds significant costs to buyers, and further complicates the Total Building Performance and ERI compliance paths. Section R401.2.5 of the 2021 IECC requires additional energy efficiency. One way to meet that requirement is by choosing an option from R408. One option in R408 is to upgrade the HVAC equipment, which lists the efficiency needed for the furnace to qualify. Or increasing the efficiency of the water heater is another alternative. The IECC is designed to allow builders and homeowners to choose how they meet the energy conservation standards. This way they can adapt to market conditions and best building practices for their homes. But the CSU recommendation takes away that flexibility, essentially mandating two specific R408 options be part of the proposed design. And according to R401.2.5, to comply with R408 when using Total Building Performance or ERI compliance methods, the option selected in R408 cannot be included in the proposed design for energy calculations. But the recommendation puts the furnace and water heater efficiencies in table R405.2, making them part of the proposed design. Therefore, according to R401.2.5, they don't count to fulfil an R408 option. So, depending on the house design, it seems this could require a home to have three of the R408 options included, when the 2021 IECC only needs one!
Also, section R404 of the 2021 IECC is for Electrical Power and Lighting Systems. But the recommendation is seeking to add code requirements for gas-fired appliances. It appears to me, these efficiencies wouldn't belong in the electrical section.

CSU Recommendations 4 & 5:
As mentioned previously, the state passed House Bill 22-1362 earlier this year, which included the addition of Part 4 to article 38.5 of title 24 of the Colorado Revised Statutes. Per Colorado Revised Statute 24-38.5-401, the state has created the Energy Code Board, which will develop several new energy codes. These will include "Electric Ready", "EV Ready", & "EV Capable" requirements for residential buildings. It is the duty of the Energy Code Board to develop the model electric ready and solar ready codes on or before June 1, 2023. Since the state will soon be publishing these new rules to prepare for electrification, it doesn't seem prudent for our community to create its own set of "Electric ready" codes, only for them to become invalid shortly thereafter.

Response to I-6-1

This comment is a rebuttal to the proposal made by CSU. Board of Review to hear these items in the 11-9-22 work session.

Response to I-6-1

This comment was considered by Board of Review on 11-9-2022. Determination was made to leave current code as proposed without modification.

I-7: Chris Jensen

Submit Date: 10/28/2022 4:44 PM

Comment I-7-1

See attached

Chris Jensen

The following is my opinion to the recommendations made by CSU

CSU Recommendations 1 & 2

1. Providing a 3-year expiration date on RBC308.4.17 & RBC308.4.18 (Tables R402.1.2 & R402.1.3)
2. After July 2026 allow additional prescriptive insulation options.

These recommendations only serve to further complicate the code adoption process. Saying this allows time to adapt is prolonging the inevitable. The new home production environment currently requires constant adaption to changes, whether it is supply issues, price increases or simply finding a better way to improve our building practices. A non-typical code cycle change would also create an unnecessary burden for RBD.

CSU Recommendation 3

New code section requiring higher efficiency gas furnaces to offset amended insulation levels.

Mandating higher efficiency heating equipment is a costly trade-off that further compounds the housing affordability issue we face. It also removes some design options to achieve higher efficiencies.

CSU Recommendations 4 & 5

Provide new code sections for pre-wiring of electrified heating, water heating and electric vehicles charging.

Mandating these as new code items for a future concept has merit, However I believe clear direction in the way of total electrification is still unclear. It is recognized State and Federal legislation is indeed pushing this agenda and stringent requirements are undoubtably on the horizon.
I therefore feel the timing of these code recommendations to be hasty and counter-productive to near future requirements. I also feel these proactive items would be attractive options to certain buyers without mandate.

I feel we must adoption of the current proposed amendments to the 2021 IECC energy code within the PPRBD 2023 Residential Code V2.0.
They provide a sensible balance to a housing affordability crisis and the production of a safe, comfortable and efficient home.

Response to I-7-1

This comment is in opposition to the proposals made by CSU. Topics to be heard during the 11-9-22 Board of Review work session.

Response to I-7-1

This comment was considered by Board of Review on 11-9-2022. Determination was made to leave current code as proposed without modification.

I-8: Andy Sanchez

Submit Date: 10/30/2022 9:27 PM

Comment I-8-1

Re: RBC308.4.17 & RBC308.4.18: Tables R402.1.2 & R402.1.3 I support this amendment as it directly addresses the cost v. value proposition for insulation values. Additional insulation is a good thing to a point. Beyond that point, the return on your investment has a logarithmic growth pattern, meaning the value for the dollar you're spending diminishes exponentially. The cost from our current code requirement for exterior wall insulation to the 2021 IECC unamended will cost a buyer between $3,000 and $5,000 on their home and saves the buyer $24/year in energy savings. This results in a minimum 125-year payoff (not to mention the $20/month added cost on a monthly mortgage extends this payoff time, and as interest rates rise, this cost increases). The cost from our current code requirement for attic insulation to the 2021 IECC unamended will cost a buyer roughly $900 and will save the buyer $4/year in energy savings. This results in a minimum 225-year payoff (not to mention the $5/month added cost

on a monthly mortgage extends this payoff time). As stated above, spending more on insulation is a good thing, to a point. Beyond that point, you can spend more and more money but receive a very minimal increase in efficiency and cost savings.

Response to I-8-1

RBD: this comment is in support of the current amendments as proposed.

Response to I-8-1

This comment was considered by Board of Review on 11-9-2022. Determination was made to leave current code as proposed without modification.

I-9: Andy Sanchez

Submit Date: 10/30/2022 9:29 PM

Comment I-9-1

RBC308.4.19: Section R402.4.6 I support this amendment because every new home build is tested and meet the air change requirements listed in the IECC code so there is no need to specify a certain product type. This verbiage seems very restrictive and appears to be written and promoted by someone with a financial interest in this certain product type.

Response to I-9-1

RBD: this comment is in support of the current amendments as proposed.

Response to I-9-1

This comment was considered by Board of Review on 11-9-2022. Determination was made to leave current code as proposed without modification.

I-10: Andy Sanchez

Submit Date: 10/30/2022 9:42 PM

Comment I-10-1

I am writing this comment to oppose the amendments/comments proposed by Colorado Springs Utilities dated 10/19/2022. Colorado Springs Utilities is using 'energy savings' as a veil to try and push their agenda and use the code adoption time frame to attempt to force builders to adopt more strict energy requirements. The amendments that have been proposed by Regional Building are a beneficial step for all towards energy efficiency. The additional jump from the

proposed amendments to the unamended 2021 IECC carry a large cost and minimal cost savings (over 100-year return on the investment for a buyer).
Colorado Springs should, instead, focus their efforts on the EXISTING residential homes that are consuming much more energy/resources than new builds, and focus on incentivizing and promoting increased efficiency appliances and energy sources to help those homes reduce their resource burden to Colorado Springs Utilities.

Response to I-10-1

This comment is in opposition to the proposals made by CSU. Comments and topics to be heard during the 11-9-22 Board of Review work session.

Response to I-10-1

This comment was considered by Board of Review on 11-9-2022. Determination was made to leave current code as proposed without modification.

I-11: James Lockhart

Submit Date: 10/31/2022 5:24 PM

Comment I-11-1

Greetings:
These comments are submitted with regard to the proposed Pikes Peak Regional 2023 Building Codes Update.

I urge you to adopt the 2021 International Energy Conservation Code (IECC), without amendments to the Code which would effectively allow builders to follow earlier and less efficient energy conservation standards. This would not only save homeowners money in the long run, but also improve home residents' health.

Homeowners already face the prospect of paying a high price for inefficient homes. According to the US Energy Information Administration (EIA) https://www.eia.gov/special/heatingfuels/resources/winterfuels2022.pdf, the average US household that heats primarily with natural gas will spend 28% more this winter for gas bills than one year ago, and 62% more than two years ago. Allowing builders to build to a lower energy conservation standard will simply pass these higher costs on to new home owners. On the other hand, the savings to be achieved by adopting a higher standard are substantial. According to a recent, December 2021 report by the Pacific Northwest National Laboratory (PNNL-32382) https://www.energycodes.gov/sites/default/files/2021-12/ColoradoResidentialCostEffectiveness_2021.pdf, adoption of the 2021 IECC would cause residents of El Paso and Teller Counties to achieve $1247 life cycle cost savings and $161 year-

one annual energy savings. Since this would offset higher building costs in a matter of 9 years, those costs would be offset several times over during the average life span of a house.

Looking at the larger picture, adoption of these higher standards would also benefit the community at large. According to the PNNL report, adopting the higher standards would result in $1,742,000,000 in energy cost savings statewide over 30 years, would create 646 jobs in Colorado the first year, and would create 18,345 jobs over 30 years. It would also result in a 30-year reduction of CO2 of 20,301,000 metric tons; and SOx by 4368 metric tons statewide for Colorado.

Adopting higher standards would also benefit the public health by reducing the impacts of natural gas. A meta-analysis reported in the International Journal of Epidemiology, Volume 42, Issue 6, December 2013, Pages 1724–1737, https://academic.oup.com/ije/article/42/6/1724/737113?login=false of the effects of indoor NO2, the main source of which is indoor gas cooking, found that that children living homes with gas stoves were 42% more likely to have asthma symptoms. It has been estimated that fossil fuel pollution from Colorado buildings was responsible for over $700 million in health impacts in 2017 alone.

I therefore ask that you adopt the current 2021 IECC standard without exceptions.

James E. Lockhart

Response to I-11-1

This comment is a request to adopt the 2021 IECC unamended. Opposed to current PPRBC amendments.

Response to I-11-1

This comment was considered by Board of Review on 11-9-2022. Determination was made to leave current code as proposed without modification.

O-1: Colorado Springs HBA, Amanda DeMarco

Submit Date: 10/18/2022 3:19 PM

Comment O-1-1

RBC308.4.20: Section R404.1 Lighting Equipment
(Not less than 90% of all permanently installed lighting fixtures shall contain high-efficacy lighting sources)

We support this amendment because it aligns with the 2018 IECC requirement. The small 10% allowance for light sources that don't meet the new definition of High-Efficacy Lighting will give home buyers a bit of freedom when choosing decorative lighting.

Response to O-1-1

Public comment in favor of PPRBD's proposed amendment as added into the code by Board of Review in first round work session.

Response to O-1-1

This comment was considered by Board of Review on 11-9-2022. Determination was made to leave current code as proposed without modification.

O-2: Colorado Springs Utilities, Gabriel Caunt

Submit Date: 10/19/2022 7:39 PM

Comment O-2-1

Colorado Springs Utilities has several proposed changes to PPRBC 308 V2. We have attempted to balance first cost and new home affordability with long-term cost and environmental and regulatory considerations, and to provide allowances for time for the building community to adapt to significant changes in the 2021 IECC. The proposed changes are summarized as:
1. A 3-year expiration date to the local amendments weakening the building insulation requirements in R402.1.2-R402.1.3 from the IECC national model code
2. Provisions to allow additional continuous insulation options in the prescriptive performance path
3. New code section requiring higher efficiency gas furnace equipment as a cost-effective mandatory prescriptive offset to the amended insulation levels in the prescriptive path and as a baseline for the performance and UA paths (in new construction only)
4. New code section requiring Pre-wiring for future electrification of heating, water heating (in new residential construction only)
5. Pre-wiring for future electric vehicle charging equipment where an attached garage is provided in new residential construction.
6. Support for CSFD's proposed revisions to restrict the locations of DC fast vehicle chargers to support firefighting operations
7. Limitations on the use of electric resistance heat to backup and supplemental heat functions only (for residential new construction only)

Factors that motivate Utilities to recommend these changes are as follows:
A. Natural Gas Market conditions and expected long term price increases
B. Requirements to reduce emissions associated with retail natural gas sales set forth in Senate Bill 21-264

C. Limitations on natural gas delivery capacity and associated costs of expanding natural gas delivery systems
D. Opportunity Cost of the proposed local amendments
E. Availability of offsetting tax credits and incentives that can help reduce the first cost of code improvements
F. An expected long-term trend toward electrification and decarbonization of transportation.

A supporting memo with proposed code language and supporting technical and regulatory analysis is attached.

-See Appendix 1.0 page 118 of pdf for attachment-

Response to O-2-1

Comment proposing additional amendments to section 308 of the 2023 PPRBC. Further discussion to occur at Nov. 9 BOR work session.

Response to O-2-1

This comment was considered by Board of Review on 11-9-2022. Determination was made to leave current code as proposed without modification.

O-3: CSHBA, Amanda DeMarco

Submit Date: 10/31/2022 9:08 PM

Comment O-3-1

In response to CSU recommendations submitted on 10/19/2022

CSU Recommendation 1: ROI of unamended walls and attic prescriptive insulation values is insufficient to justify a 3-year expiration of the proposed amendments. Amended code is an incremental step towards the unamended IECC, due to a tighter envelope (less air infiltration) and a required energy efficiency package (R408). This approach gives builders flexibility, reduces utility bills for homeowners without burdensome first costs and reduces carbon emissions for CSU.

HB22-1362 will lead to a state mandated acceptance of the 2021 or 2024 IECC soon so adding language that would require a mid-cycle code change would add huge cost and time impacts for homebuyers, builders and the building community. We recommend CSU looks for ways to incentivize existing homeowners as they replace aging equipment.

CSU Recommendation 3: Section R401.2.5 of the 2021 IECC requires additional energy efficiency. One way to meet that requirement is by choosing an option from R408. One option is to upgrade the HVAC equipment, which lists the efficiency needed for the furnace to qualify.

Increasing the efficiency of the water heater is another option. CSU's recommendation #3 removes design flexibility while also adding costs for more equipment upgrades than the IECC required.

CSU Recommendations 4 & 5: As required by Colorado Revised Statute 24-38.5-401, the State has created a new Energy Code Board which will develop new statewide energy codes which will address everything contained in CSU recommendations 4 & 5. The state's new "Electric Ready" and "EV Ready" codes will be developed next year. Why add these requirements to our community now, only to immediately change them when the state codes are mandated?

Response to O-3-1

Public comment in opposition of proposed additional amendments by CSU. Further discussion to occur at Nov. 9 BOR work session.

Response to O-3-1

This comment was considered by Board of Review on 11-9-2022. Determination was made to leave current code as proposed without modification.

D-1: Rhett Osko

Submit Date: 10/28/2022 5:05 PM

Comment D-1-1

RBC308.4.17, RBC308.4.18, RBC308.4.19 (R402.1.2, R402.1.3, R402.4.6) - OPPOSE Colorado Springs Utilities' Recommendation #1 (dated 10/19/22) to provide a 3-year expiration date to these local amendments. To reduce natural gas consumption, it is 5 times more effective AND half the cost to design a tighter house per requirements of the amended code package, as compared with the increased wall and ceiling insulation standards of the 2021 IECC. Please see exhibit A for analysis and references.

For this reason, Classic Homes supports the RBD's amended code package, which includes a tighter envelope. The air infiltration rate reduces from 5 to 3 air changes per hour, when pressurized to 50 pascals during a blower door test. While new homeowners will incur an added cost to comply with this new requirement, their upfront investment will payback quickly due to the efficiency of a tighter home. This level of efficiency and resulting payback is NOT gained when applying the wall and ceiling insulation standards of the 2021 IECC.

For the air infiltration measure alone, Colorado Springs Utilities can represent to the Colorado Energy Office (CEO) an approximate 3 billion pounds of carbon emissions savings from new homes built to the amended code during the next 6 years (calculated over a 30-year home life cycle). Additionally, carbon emissions savings will be gained through a required efficiency package option, such as a high efficiency furnace or water heater, and a 50% upgrade to

basement wall insulation, which expires a local amendment to the current code. These collective savings will be realized through the amended code package.

Since we are making progress towards the State's goal of reducing carbon emissions, and achieving this in a manner that protects local affordability, why would our community want to introduce inefficient energy reduction measures after 3 years?

2023 PPRBC Section 308 V2
EXHIBIT 'A'

AIR INFILTRATION CODE IMPROVEMENT (2021 IECC W PPRBD-PROPOSED AMENDMENTS)

	Duration	5 ACH50 (.35 nat)	3 ACH50 (.21 nat)	Energy Reduction	Units
Total heating load (1)		67,701	60,939	6,762	BTU/hr
Per day	24			162,288	BTUs
Per year (2)	365			59,235,120	BTUs
Natural gas savings (3)				571	Ccf/year
Annual impact per home				**57,122**	cubic ft gas

ATTIC & WALLS CODE IMPROVEMENTS (2021 IECC)

Ceiling/ Attic R49 to R60	Abv Grd Walls R20 to R20+5ci	Energy Reduction	Units
11.26	102.46		CCf gas
		114	Ccf/year
		11,372	cubic ft gas

RETURN ON INVESTMENT (2021 IECC W PPRBD-PROPOSED AMENDMENTS)

	Added Cost	Value	Unit
Value on dollars invested to reduce 100 cubic feet of natural gas consumption (4,5)	$2,000	**$3.50**	$/Ccf

RETURN ON INVESTMENT (2021 IECC)

Added Cost	Added Cost	Value	Unit
$670	$3,725	**$38.65**	$/Ccf

CARBON EMISSION REDUCTIONS (2021 IECC W PPRBD-PROPOSED AMENDMENTS)

	Pace	Duration	Carbon	Unit
New homes	3000			per year
Code cycle		6		years
Life of home		30		years
18,000 CSU customers			308,456,748	Ccf gas
Carbon emission savings (6)			**3,088,885,878**	Lbs carbon

CARBON EMISSION REDUCTIONS (2021 IECC W CSU-PROPOSED 3 YR EXPIRATION)

Pace	Duration	Carbon	Unit
3000			per year
	3		years
	30		years
		30,704,400	Ccf gas
		307,473,862	Lbs carbon

FOOTNOTES:

(1) Classic Homes 415.0 plan via ACCA Manual J calculations performed by Regional Heating on 10/27/22.

(2) CSU's PPRBC, 2023 DRAFT Edition V2.0, Appendix B - Residential Code Amendments, Technical Savings Analysis, dated 10/19/22.

(3) Ccf = 100 cubic feet = 103,700 BTU

(4) AeroBarrier bid at $1 per square foot on 9/15/22.

(5) Classic Homes 926.1 plan from USI Powers Insulation on 6/11/22.

(6) 1 Ccf of natural gas = 10.014 lbs of carbon

Response to D-1-1

Public comment in favor of PPRBD's proposed amendments and in opposition of proposed additional amendments by CSU. Further discussion to occur at Nov. 9 BOR work session.

Response to D-1-1

This comment was considered by Board of Review on 11-9-2022. Determination was made to leave current code as proposed without modification.

D-2: Rhett Osko

Submit Date: 10/28/2022 5:26 PM

Comment D-2-1

OPPOSE Colorado Springs Utilities' Recommendation #4 (dated 10/19/22) to require an ENERGY STAR or more efficient heat pump as the primary heating source above 35 degrees F (15 degrees F for cold-climate heat pumps) where whole-home air conditioning is provided.

Classic Homes' supplier of Carrier Global Corporation products is not able to provide heat pumps at this time. The supply issue is currently happening at a national scale.

Air conditioning condensers can be easily replaced with heat pumps in the future. We recommend that CSU incentivizes homeowners to replace AC condensers with heat pumps when the products become readily available.

Response to D-2-1

Public comment in opposition of proposed additional amendments by CSU. Further discussion to occur at Nov. 9 BOR work session.

Response to D-2-1

This comment was considered by Board of Review on 11-9-2022. Determination was made to leave current code as proposed without modification.

2023 PPRBC CHAPTER 3 CONSTRUCTION CODES SECTION 309 MANUFACTURED BUILDING CODE

No comments received.

2023 PPRBC CHAPTER 3 CONSTRUCTION CODES SECTION 310 CONVEYANCE SAFETY CODE

No comments received.

2023 PPRBC CHAPTER 3 CONSTRUCTION CODES SECTION 311 EXISTING BUILDING CODE

No comments received.

2023 PPRBC CHAPTER 3 CONSTRUCTION CODES SECTION 312 ENUMERATION CODE

No comments received.

2023 PPRBC CHAPTER 3 CONSTRUCTION CODES SECTION 313 FLOODPLAIN CODE

No comments received.

2023 PPRBC CHAPTER 3 CONSTRUCTION CODES SECTION 314 SWIMMING POOL & SPA CODE

No comments received.

2023 PPRBC PROPOSE A NEW CODE AMENDMENT

I-1: Marty Rickett

Submit Date: 10/07/2022 9:45 AM

Comment I-1-1

I am proposing a new code to have all new single family detached, single family attached and Two-family residential housing to provide one EV (electric vehicle) capable rough in for future EV charging.

This should be a minimum and if you wanted to up this to EVSE Ready I think that would be great. I was hoping to get this into COS Retool but it looks like we can only do that for parking which I will support. In 10 years EV's will be the only cars available to purchase from the major manufactures. A very large number of houses will need to have their service upgraded to be able to charge their new car. Roughing in EV Capable at the time of building will only cost about $100, to upgrade a panel and add install later will cost thousands. I understand the state is requiring the adoption of the 2021 IECC which will increase the cost of housing by as much as $10,000. This is a huge blow to affordable and attainable housing! I am a supporter of affordable and attainable housing in the city and have approved all projects that came before the planning commission for the last three years. I guess I look at the balancing act this way, do you add 1% to that amount now or 50% to that amount when someone needs to buy a new car? One other thought, by having the rough in done and a panel to support charging would you be encouraging people to purchase EV's because they don't have the upcharge of a new electrical panel and charging wiring? I believe their have been conversations on the next IECC code having this requirement, the 2021 version had this requirement and it was removed, that could happen again. Attached is a DOE Technical Brief from July 2021 on EV and EV charging. There are many Colorado Cities referenced for their codes on EV Capable or EV Ready housing requirements and EV charging parking requirements. I would ask that you review the document and think of being proactive on EV as our neighboring cities have, this is coming, lets address it now.

-See Appendix 1.0 page 136 of pdf for attachment-

Response to I-1-1

This proposal mirrors a similar request from CSU. RBD staff response: 1) This request would make the code more restrictive than any current 2021 model code. 2) In the near future, RBD will be required to enforce the State required Model Electric and Solar Ready Code and this will be a requirement at that time.

Response to I-1-1

Comment considered by Board of Review on 11-9-2022 with no change in 2023 PPRBC V2.1 code language.

I-2: Brian Moody

Submit Date: 10/10/2022 1:37 PM

Comment I-2-1

It's wrong how strict you guys make the building code with virtually no accountability to the outside world. Everyone's in an uproar over housing affordability but no one thinks TWICE about tightening building codes tighter and tighter year after year. All your stricter codes do is increase cost and destroy affordability. If a builder wants to build a crappy, unsafe product, regional can not and will not stop that from happening.

Response to I-2-1

No code related comments, public opinion.

I-3: steve and Joy rasor

Submit Date: 10/11/2022 3:24 PM

Comment I-3-1

We plan to move to colorado springs as soon as we can find a house or townhome built to 2021 IECC code standards or higher. We have been waiting patiently for a few years and are excited that this change may occur as early as mid year 2023. It can't happen soon enough. Of course the pace of change and work loads for builders and the trades and inspectors are overwhelming, but with practice will come many happy clients. We will be especially patient and understanding as supply chains open and new technologies are studied and adopted. These are exciting times! We also encourage Co. Spgs. to develop and implement a firewise building code.

Response to I-3-1

No code related comments, Public opinion in favor of more energy requirements.

Response to I-3-1

Comment considered by Board of Review on 11-9-2022 with no change in 2023 PPRBC V2.1 code language.

C-1: Jeremy Lientz

Submit Date: 10/19/2022 4:08 PM

Comment C-1-1

Adding new Fire Alarm Inspector License.

Fire Alarm Inspector: The Fire Alarm Inspector is a skilled worker employed by a Fire Alarm Contractor A who is qualified to ensure proper testing and inspection of fire alarm system in accordance with the standards set by the Fire Authority.

Scope of Certification: The Fire Alarm Inspector Certification allows the individual to test and inspect fire alarm systems of all types. This certification does not permit the installation, repairs, programming, or alteration of the fire alarm system beyond the replacement of batteries and or field devices without the removal of wiring of the SLC, NAC and IDC circuits.

Fire Alarm Inspector Requirement:
An examination is required for this certificate. An applicant shall have the option obtain a minimum of NICET Level II certification in the Inspection of Fire Alarm System or taken approved exam with a passing score as determined by the approved testing agency. After review and approval from the Colorado Springs Fire Department, the applicate shall receive a current certificate.

Response to C-1-1

This comment mirrors others submitted under CH 2 public comments. This comment was reviewed and accepted by RBD and CSFD and is now incorporated into the 2023 PPRBC under new section RBC 208.7.

Response to C-1-1

Comment considered by Board of Review on 11-9-2022 with approval of changes accepted by CSFD and RBD to incorporate under section RBC 208.7.

D-1: Carbon Karma Compaany, Jade Nuss

Submit Date: 10/15/2022 9:50 PM

Comment D-1-1

All new and existing building permits must include some form of renewable energy systems in order to fulfil Zero Carbon energy supply.

Provisions for Biofuel heating should be addressed and implemented.

Response to D-1-1

No specific code related comments, Public opinion in favor of more energy requirements.

Response to D-1-1

Comment considered by Board of Review on 11-9-2022 with no change in 2023 PPRBC V2.1 code language.