



City of Broomfield

City Council Study Session

Tuesday, May 21, 2024, 6:00
PM

Council Chambers
One Descombes Dr
Broomfield, CO 80020

1: Concept Review

2: Study Session

2A. Open Space and Trails Advisory Committee Presentation

Presenter: Michael McLane, Chair

2B. Energy Code Update

This memorandum provides an update regarding progress moving forward on the Energy Code Roadmap originally presented in April 2023 and requests direction from City Council regarding how to move forward with additional strengthening amendments.

2C. Tree Preservation Plan/Regulations

2D. Low Density Regulation Update

Proposed Amendment to R-1 for House Size and Lot Size

2E. Timing of Potential Charter Change Ballot Questions

Continued discussion on the proposed changes to the Charter and what questions should be presented to the voters on the November 2024 ballot.

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Date Posted: May 15, 2024



City of Broomfield

City Council Study Session

Energy Code Update

This memorandum provides an update regarding progress moving forward on the Energy Code Roadmap originally presented in April 2023 and requests direction from City Council regarding how to move forward with additional strengthening amendments.

Meeting	Agenda Group	
Tuesday, May 21, 2024, 6:00 PM	Study Session	Item: 2B
Presented By		
Anna Bertanzetti		
Community Goals		

Overview

[View Correspondence](#)

Due to the delay in the publication of the 2024 IECC and the State Model Low Energy and Carbon Code is still in early steps, staff is presenting a proposal for a revised roadmap in regard to the Energy Code strengthening efforts.

Attachments

[Memo for Energy Code Study Session.pdf](#)

Summary

[View Correspondence](#)

On [April 18, 2023](#), staff brought forward an Energy Code roadmap to City Council regarding a phased approach to moving forward with Energy Code strengthening through adoption of the model code followed by consideration of strengthening amendments.

Staff originally intended to bring forward this study session earlier in 2024, but had delayed the discussion in hope that the 2024 International Energy Conservation Code (IECC) would be published and the State Energy Code Board would begin meeting to start framing their next model code earlier in 2024. Although the 2024 IECC has not yet been published (now expected in late May) and the State Energy Code Board has only just begun to meet (additional information in following sections), staff determined it would be appropriate to bring forward this request for direction rather than further delay the discussion.

Due to the delay in the publication of the 2024 IECC and the fact that the State Model Low Energy and Carbon Code is still in early steps, staff is presenting a proposal for a revised roadmap in regard to the Energy Code strengthening efforts.

Financial Considerations

N/A

Prior Council or Other Entity Actions

[April 18, 2023](#), study session regarding a phased approach to moving forward with Energy Code strengthening.

[August 22, 2023](#), adoption of State Model Electric Ready and Solar Ready Code and updating electric vehicle parking space requirements in Title 17 of the Broomfield Municipal Code.

Boards and Commissions Prior Actions and Recommendations

The Advisory Committee on Environmental Sustainability (ACES) reviewed the proposed update to the Energy Code Roadmap at their meeting on April 8, 2024 and voted unanimously to recommend City Council support the roadmap and recommended that the implementation after adoption be expedited.

Proposed Actions / Recommendations

Following publication of the 2024 IECC and the model State Model Low Energy and Carbon Code, bring forward an ordinance for consideration by City Council following community engagement.

Alternatives

Make changes to B.M.C. as directed by Council.
Make no changes to the B.M.C. at this time.

Background

In September 2020, City Council adopted [Resolution 2020-169](#), establishing greenhouse gas (GHG) reduction targets as recommended by the Advisory Committee on Environmental Sustainability (ACES). The resolution identified emission goals for Broomfield as a community as well as for Broomfield as an organization.

For Broomfield as a community, GHG Reduction goals consist of the following percentages and dates:

- 26% by 2025
- 50% by 2030
- 90% by 2050

For Broomfield as an organization, GHG Reduction goals consist of the following percentages and dates:

- 30% by 2025
- 60% by 2030
- 90% by 2045
- 100% by 2050

The [Broomfield GHG Emission Reduction Plan](#) was designed to provide the framework for achieving the identified emission targets. In 2019, a GHG inventory, looking at 2017 emissions, was completed by the University of Colorado Denver and was included as part of the Reduction Plan efforts. The data indicated the second largest community emission source was commercial and institutional buildings (26%), with residential buildings following as the third largest source (17%). When considering emissions from all building sources (43% combined), reducing energy use in the building sector represents the greatest opportunity for GHG reductions in Broomfield.

On [April 18, 2023](#), staff brought forward an Energy Code roadmap to City Council regarding a phased approach to moving forward with Energy Code strengthening through adoption of the model code followed by consideration of strengthening amendments.

Based on the discussion at the April 2023 study session, staff proceeded with the following phased approach:

Phase 1	<ul style="list-style-type: none">• 2021 Energy Code Adoption• Electric Vehicle Charging requirements for new developments subject to site development plan review	<ul style="list-style-type: none">• Complete
Phase 2	<ul style="list-style-type: none">• Adopt 2023 State Electric Ready Energy Code	<ul style="list-style-type: none">• Complete

Phase 3	<ul style="list-style-type: none"> • Consideration of strengthening amendments above the model State Electric Ready Energy Code. • Consideration of early adoption of 2024 IECC pending publication of the 2024 IECC in early 2024 	<ul style="list-style-type: none"> • Study Session 1st quarter 2024 • Ordinance consideration based on study session direction • Effective date to be determined
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As of the date of this memorandum, the 2024 IECC has yet to be finalized. Due to the anticipated complexity of the amendments to be incorporated in the 2024 IECC, there will need to be additional time for analysis of the financial implications of the requirements. The work regarding the financial impacts and efficiency improvements will be completed by the Department of Energy. We do not expect to have this financial impact information until mid to late 2025 from the Department of Energy, but the State Energy Code will have some analysis completed by fall of 2024.

Staff anticipates the 2024 IECC will require some new commercial and multi-family residential developments to install on site renewable energy which will typically be solar. This will be a significant cost impact for these developments and therefore the financial impact analysis will be important to evaluate when the City Council considers moving to the 2024 IECC in the future. It may be possible to consider local amendments to not adopt this portion of the code, but this will be dependent on the final model code from the state. If the state model code incorporates the requirement for renewable energy requirements, then Broomfield would be required to keep that requirement when Broomfield is required to adopt the state model code.

It should also be noted that the State, in compliance with [HB22-1362](#), has reconvened the Energy Code Board to begin working on the next phase of the State Energy Code. This next phase will focus on adoption of a Model Low Energy and Carbon Code. This next model code will need to be complete before June 1, 2025 and, similar to the Model Electric Ready and Solar Ready Code, would then be for adoption by counties, municipalities, and state agencies. This code is discussed further in the section below.

Since the 2024 IECC is not published and the State Model Low Energy and Carbon Code is still in progress, staff is requesting direction from the City Council in regards to the timing for the next phases of the Energy Code strengthening efforts.

State Model Energy Code

The Colorado legislature passed a new bipartisan law in 2022 ([HB22-1362](#)) that updates minimum energy code requirements. Jurisdictions throughout the state must adopt at least the 2021 IECC, along with electric vehicle-ready, solar-ready, and electric-ready, when updating any other building codes between July 1, 2023 and July 1, 2026. In addition, jurisdictions must adopt at least a low-energy and carbon code and a new Energy Code Board (ECB) was formed to draft a model code that jurisdictions could utilize. Since Broomfield has already adopted the 2021 IECC, Broomfield’s

next step was to either adopt the model electric ready and solar ready code developed by the ECB, a similar code, or a code that went beyond the 2021 IECC to reduce emissions.

Key elements of the State Model Electric Ready and Solar Ready Code related to solar ready and electric vehicle parking requirements are described in the memorandum from the first reading of Ordinance No. 2216, which can be located [here](#). The electric ready requirements are summarized below.

Electric Ready Requirements

The ***electric ready requirements*** require all new one and two family, townhomes, new commercial and multifamily buildings, additions to existing commercial buildings, and for tenant finishes going into a previously unfinished space in existing shell commercial buildings to be electric ready. Electric ready construction means that builders could choose to provide electric-only construction, but if they choose to provide natural gas to the new construction, then the structure must include electric service to each location where natural gas is provided to allow for the owner to transition to electric service for that appliance in the future. This will require adequate electrical service capacity along with installing electrical conduits with receptacle or junction boxes to all gas fired combustion equipment locations.

Broomfield adopted the requirements of the State Model Electric Ready and Solar Ready Code (Ordinance 2216) on August 22, 2023. These requirements went into effect on January 1, 2024.

The next phase of the State Energy Code Board work began earlier this year. In March 2024, the Code Board met to begin working on the Model Low Energy and Carbon Code. Tim Pate, Broomfield Chief Building Official, will again participate as a member of the State Energy Code Board. The Code Board will include the more energy efficient requirements from either the 2021 or 2024 IECC with the intent of minimizing overall carbon dioxide emissions associated with new or renovated homes and commercial buildings. An overview of the Phase II can be viewed in the document titled [Overview of HB22-1362 - Key Duties](#).

The State Energy Code Board will be working on drafting the Model Low Energy and Carbon Code over the next eleven months and will provide opportunities for public engagement and stakeholder input (see [Energy Code Board Phase 2 Timeline](#)). We believe that a general framework for the new code may be known by summer of this year. By statute, the code must be completed by June 1, 2025, but we expect the full draft package to be available by April 2025 based on the Phase 2 timeline. It should be noted that [SB24-214](#) introduced on April 22, 2024 would modify the required dates for Phase 2 of the Energy Code Bill and as drafted could result in finalization of the code being moved from June 1, 2025 to September 1, 2025. This would also delay having the full draft package for review until early August 2025. This bill was approved on May 8, 2024 by the legislature and if signed by the Governor the Colorado Energy Office will give direction to the State Energy Code Board for the potential modified meeting time frames.

DOLA Code Cohort

The Colorado Department of Local Affairs (DOLA) provided grant funding in 2021-2022 to local governments in the northwest Denver metro area and Boulder County area to collaboratively review

with the intent to consider future adoption the most recent energy code - the 2021 IECC along with regionally-aligned and consistent supporting amendments.

Primary goals of the cohort included reducing energy use and climate emissions in the built environment; improving region-wide consistency for builders, developers, and contractors; and streamlining workload for budget-constrained building departments. Participating communities included Erie, Lafayette, Boulder County, Northglenn, Superior, Louisville, and Broomfield.

Although the grant has ended, the Code Cohort continues to meet in 2024 and has expanded to include additional communities.

The Code Cohort was jointly led and supported by Lotus Engineering and Sustainability, the Southwest Energy Efficiency Project (with support from the U.S. Department of Energy), and Shums Coda (with support from Xcel Energy).

The Code Cohort recommended that cities adopt electric ready amendments to prepare homes and buildings for the choice between gas equipment and appliances by ensuring the wiring and panel capacity are available for future electric equipment. It also recommended electric-transition amendments, which still allow new construction to be all electric or mixed fuel, but mixed fuel homes and buildings require extra efficiency to make up for extra emissions. This is what we are calling “electric preferred”.

As described in the code cohort fact sheet, available [at this link](#), electric ready, electric preferred, and electric only code options are described as:

- Electric-ready amendments - Prepare homes and buildings for the choice between electric and gas equipment and appliances by ensuring they have the wiring and panel capacity available for future electric equipment (and enough physical space, in the case of water heaters).
- Electric-transition amendments - still allow new construction to be either all-electric or "mixed fuel" (e.g. natural gas) but mixed fuel homes and buildings require extra efficiency to make up for extra emissions.
 - The residential amendments in the prescriptive path require mixed fuel homes to select three "additional efficiency packages" instead of one. Mixed fuel homes choosing the "Energy Rating Index" (ERI) pathway would seek a score of 50 instead of 55.*
 - For commercial buildings, mixed fuel buildings would choose extra efficiency options totaling an extra 10 points. The amendment would also need to fix two places in the commercial code where gas equipment was given more points than electric.
- Electric only - would require all-electric heating and water heating for most residential, multifamily, and commercial buildings, or, even further, no gas connections at all.

At this time, Broomfield has taken the first approach with electric-ready amendments as provided in the State Model Energy Code.

Consideration of either electric-preferred or electric only code amendments would require additional action by the City Council.

Financial Considerations

Per the information provided by the Code Cohort, upfront costs for home builders will be highly dependent on the configuration selected by the builder. The Code Cohort referenced that costs between a mixed fuel and electric only home may not vary since there will be savings from avoiding the gas connection and gas piping costs for an electric only home. State and utility rebates may also further offset the cost. The cohort created the [All Electric New Home & Buildings in Colorado Factsheet](#) providing a summary of their findings. However, this is in contrast with communication provided between builders and Broomfield staff. Builders experienced in constructing all-electric homes in other communities shared that the mechanical system for an all-electric home is between \$5,000 to \$7,000 more than a typical gas system (see more detailed estimate available [at this link](#)).

Other communities have analyzed potential cost impacts, such as Eagle County who hired Lotus Engineering and Sustainability to complete the [Eagle County Energy Code Modeling Report](#). This report found that the additional costs to build all-electric homes was \$6,000 for single family homes, \$3,000 to \$5,000 per unit for multi-family buildings, and \$0 to \$4,000 for commercial buildings. The additional costs for single family homes was reduced to \$2,000 or less for electric-ready and electric preferred codes. Similarly, the additional cost for multi-family buildings was reduced to \$1,350 per unit for multi-family units for an electric-ready code requirement (data was not available for electric preferred financial impact for multi-family).

The report provided by Lotus further includes some information regarding savings anticipated due to energy efficiency (see page 9 of above linked report) although it should be noted the comparative baseline was the 2015 IBC, and therefore staff has provided the information from the table from the report reformatted to make the comparison to the 2021 IECC. It should be noted that Broomfield's current requirements would be most similar to what is shown for 2021 IECC Electric Ready in the table.

Code Package	Total Annual Energy Cost	Total Annual Energy Cost Savings from 2021 IBC	40-Year Cumulative Emissions (mtCO2e)	40-Year Cumulative Emissions Reduction from 2021 IBC (%)
Single Family Home				
2021 IECC	\$2,360	-	248	-
2021 IECC Electric Ready	\$2,360	0	248	0%
2021 IECC	\$2,082	(\$278)	205	-17%

Electric Preferred				
2021 IECC Electric All Electric	\$2,226	(\$134)	28	-89%
Multi-family Building (Per Unit)				
2021 IECC	\$1,416	-	102	-
2021 IECC Electric Ready	\$1,416	0	102	0%
2021 IECC Electric Preferred	\$1,342	(\$74)	86	-16%
2021 IECC Electric All Electric	\$1,291	(\$125)	16	-84%
Commercial Building				
2021 IECC	\$10,018	-	975	-
2021 IECC Electric Ready	\$10,018	0	975	0%
2021 IECC Electric Preferred	\$9,002	(\$1,016)	832	-15%
2021 IECC Electric All Electric	\$8,153	(\$1,865)	116	-88%

Other Municipalities

The following cities have adopted electric preferred or all electric requirements:

- Denver - Electric-preferred - Requires all new commercial and residential to be all electric or provide higher efficiency than base code requirements and their base code requirements were strengthened above the 2021 IECC levels.
- Erie - Electric preferred - Requires all new commercial and residential to be all electric or provide higher efficiency than base 2021 code requirements.
- Superior -Electric preferred - Requires all new commercial and residential to be all electric or provide higher efficiency than base 2021 code requirements.

- Northglenn - Electric preferred - Requires all new commercial and residential to be all electric or provide higher efficiency than base 2021 code requirements.
- Lafayette - Requires new residential and new commercial to be all electric with limited exceptions which include site gas utility lines already installed in streets along with commercial kitchens and certain manufacturing uses.
- Louisville - Requires all new commercial and residential to be all electric or provide higher efficiency than base code requirements.
- Boulder - Adopting the 2024 updated Boulder Energy Code effective July 1, 2024 which will require all new commercial and residential projects to be all electric and will include all additions and major alterations. This will apply to any project that has not started site plan reviews before July 1, 2024. Limited exceptions will be for commercial kitchens, scientific facilities, and certain industrial buildings. This updated code will be based on the 2021 IECC as backstop and will increase numerous sections to be more restrictive.

Golden hired a consulting firm (nbi, New Buildings Institute) to provide the City with additional information regarding potentially moving toward electric only or electric preferred code. The white paper prepared by the consulting firm can be reviewed [at this link](#). The white paper provides a good overview of some of the legal challenges faced by electric-only codes and some of the benefits and challenges with electric preferred codes. It is staff's understanding that the City of Golden will be moving forward in the future with a form of electric preferred code.

Impact of Electric Preferred Codes

It should be noted that moving toward an electric preferred code will not result in more developments opting to build electric only projects. There are multiple ways to meet the requirements of an electric preferred code, and it is likely that projects that intended to be electric only will remain electric only, but those that opt for mixed-fuel construction will still be able to meet the code requirements for mixed-fuel projects.

Staff reviewed recent building plans submitted by builders for single-family, multi-family and commercial projects to determine whether the plans submitted and approved under the current Broomfield codes would need to be modified to meet various electric-preferred codes utilized by surrounding communities.

Due to the type of construction completed for most new single-family homes, staff found there would be very few if any design changes required for these homes constructed under the electric preferred codes, except for under Denver's code. Denver's code has more strict requirements and also requires solar installation for mixed-fuel constructed homes. One significant issue that Denver has faced is that when using the "performance path", which is the most common path for compliance for both residential and commercial developments, the designer uses a Comcheck software which is produced by the Department of Energy (DOE) and that software has the base efficiency levels in the 2021 IECC.

Since Denver increased the base efficiency requirements, the software no longer works for Denver and Denver is currently waiting for DOE to produce a custom Denver Comcheck set of forms. There is no estimate yet for when this will be available, so this is creating challenges for the designers in the

interim in verifying the information typically provided via the forms. If Broomfield were to adopt a code similar to Denver's with the increase in base efficiency requirements, then either it would need to exactly match that adopted with Denver to be able to utilize their customized software or Broomfield would similarly need to request and then wait for the DOE to create a customized Comcheck.

Similarly, for commercial projects, it would be likely that the construction of most projects would not be significantly impacted if an electric preferred code were put into place since many projects already are built meeting these standards. Again, Denver's code remained an outlier and would result in changes needing to be incorporated to the construction of the developments to meet their specific electric preferred requirements, but this comes with the necessary changes to the Comcheck software.

Based on staff's analysis the electric preferred code that would result in the greatest increase in efficiency requirements for both residential and commercial projects would be Denver's code. However, under this code mixed fuel buildings would have a financial impact. For example, under the Denver code, mixed fuel single family homes must install solar panels unless they increase even more on efficiency requirements. Staff's rough estimate is that this could add \$10,000 to \$20,000 per house to do residential solar for these homes. This is in addition to costs recently added related to sprinkler systems (\$5-6,000) and that associated with the energy code updates (Broomfield Electric Ready and Solar Ready Code) adopted in 2024 (\$500-1000).

Based on the above, staff is recommending to wait on any strengthening amendments until after or concurrent with the consideration of the next State Model Code and the 2024 IECC. If Council desires to implement an electric preferred code even though it may not have significant energy savings, then staff recommends utilizing the Erie code as the model. Although Denver's code would create more energy saving impact, the financial impact and the need to wait for custom software made this choice less favorable.

Utility Provider Capacity

When Broomfield considered the electric ready codes and electric vehicle requirements over the last few years, staff had reached out to both United Power and Xcel Energy (Public Service Company of Colorado). At the time, neither provider indicated concern with these code updates.

As more developments are transitioning to electric only construction, some developers in Broomfield and throughout the front range have experienced issues with ensuring capacity in the electric grid when seeking permits (example: Velo Interlocken Apartments). Some developers (examples Dillon Pointe and Cadence Senior Living) have run into issues with the availability of equipment and contractors for Xcel that are needed to provide electric service to new construction sites. Often the issues have arisen late in the development review process, even after permits have already been issued by Broomfield.

Broomfield provides utility providers opportunities to review and comment on new developments throughout the development review process. Often developers reach out directly with the providers

to assist with ensuring their design meets the requirements of the utility provider. Even with these efforts, Broomfield has seen some developers be surprised with significant comments and requirements that are not caught until late in the review process.

Staff will continue to encourage applicants to coordinate with their service providers early in the process and will continue to engage with utility providers to ensure they are aware of new developments and have an opportunity to comment throughout the development review process.

Proposed Roadmap

Staff is seeking Council’s direction regarding a revised roadmap forward with strengthening the energy Code.

Staff is recommending the following path forward.

Phase 1	<ul style="list-style-type: none"> 2021 Energy Code Adoption Electric Vehicle Charging requirements for new developments subject to site development plan review 	<ul style="list-style-type: none"> Complete
Phase 2	<ul style="list-style-type: none"> Adopt 2023 State Electric Ready Energy Code 	<ul style="list-style-type: none"> Complete
Phase 3A	<ul style="list-style-type: none"> Adopt the 2025 State Model Low Energy and Carbon Code 	<ul style="list-style-type: none"> Study Session in Spring 2025 based on Draft Code Ordinance in Second Half of 2025 once Code Finalized Effective date of January 1, 2026
Phase 3B	<ul style="list-style-type: none"> Consideration of strengthening amendments above the model State Electric Ready Energy Code and State Model Low Energy and Carbon Code Consideration of early adoption of 2024 IECC 	<ul style="list-style-type: none"> Discuss options at Study Session in Spring of 2025 Process concurrent with State Model Low Energy and Carbon Code or as directed by City Council Effective date January 1, 2026

The above recommended path is based on:

- Of the electric preferred codes analyzed, only the Denver code resulted in modifications to building designs that would result in additional energy savings beyond what is already adopted by Broomfield.

- Denver also modified numerous sections of the base 2021 IECC to require more efficiency when they adopted the overall 2022 Denver Energy Code which includes the electric preferred sections.
- Denver's electric preferred code requires all single family homes to include solar installed adding costs in excess of \$10,000 per unit.
- Denver's electric preferred code is requiring the City and County of Denver to coordinate a custom software program to be developed to provide assistance with analyzing plans. This process, paired with the fact that Broomfield would have to have the software program made and then updated soon after to reflect changes in the 2024 IECC and/or State Model Low Energy and Carbon Code would make this effort challenging and expensive to administer.

If City Council does not agree with the above phased approach, staff can bring forward a strengthening amendment as an interim step in 2024 with an effective date of January 1, 2025. Two options that could be considered are:

- An electric preferred code to be considered in 2024 that is based on the Erie code. Based on staff's analysis, it should be noted that such a code amendment would not likely provide significant energy savings due to the fact that most buildings constructed under Broomfield's existing code would already meet the requirements of this electric preferred code.
- An electric preferred code to be considered in 2024 based on the Denver code. If this direction is provided, Broomfield would need to either mirror the code in place for Denver or ask the DOE for a custom software program to administer the code (the timing for the completion would be up to DOE). This amendment would likely result in more energy savings, but would also increase the cost for residential and non-residential development. Staff would need time to try and determine potential cost impacts and to perform public outreach with builders.

Advisory Committee on Environmental Sustainability

The Advisory Committee on Environmental Sustainability (ACES) reviewed the original draft Energy Code Roadmap as presented in the April 18, 2023 study session memorandum. Following a review of the anticipated phasing by staff, ACES recommended the following:

1. ACES recommends the City Council adopt the state model electric ready and solar ready code as soon as feasible.
2. ACES recommends that following adoption of the state model electric ready and solar ready code, staff provide analysis for strengthening amendments regarding electric preferred construction. Such local amendments should be considered by City Council before 2024.

In the [April 18, 2023](#) staff memorandum to the City Council, staff acknowledged ACES recommendation to bring forward local amendments for consideration by the City Council before 2024 and noted that it would not be possible to meet this recommended timeframe. City Council agenda availability is typically limited in fall due to the need for discussion and consideration of the budget as well as the adjustments to Council's meeting availability due to the elections and holidays in November/December. Furthermore, additional analysis was requested in regard to a potential electric-preferred code amendment. Staff noted that Broomfield does not have capability to conduct

research specific to Broomfield, but will utilize existing studies available from other sources, as was included in this study session memorandum.

The Advisory Committee on Environmental Sustainability reviewed the proposed update to the Energy Code Roadmap at their meeting on April 8, 2024 and voted unanimously to recommend City Council support the roadmap and recommended that the implementation after adoption be expedited.

Community Engagement

Broomfield staff will hold a community meeting prior to bringing forward an ordinance related to updating the energy code. Additionally study sessions will be conducted as needed pending direction provided to staff.

Transition to New Codes

If Council gives staff direction to proceed with an interim code update in 2024, staff would recommend an effective date of January 1, 2025. This will provide adequate time for developers and contractors with plans currently in review to proceed through the review process and applicants who have not yet submitted will have time to modify their plans prior to January 1, 2025.

Request for Direction

Staff has summarized the current status of the energy code and a potential path forward for requiring additional conservation measures for new development. As outlined within this staff memorandum staff is recommending a revised phased path forward.

A revised approach is proposed based on the following:

- Allow for review and consideration of state mandated amendments that will be completed in 2025
- The 2024 IECC was not finalized as quickly as anticipated. Additional time is needed to consider the changes to be included in the 2024 IECC, including potential financial impacts that have yet to be published, and whether to proceed to an early adoption (as compared to typical three-year schedule)

Question for City Council to Consider when Providing Feedback:

- Does the City Council support moving forward with the revised phasing of the energy code amendments?
- If City Council prefers moving forward with an interim step for adopting electric preferred code in 2024, then staff requests direction on which of the two paths should be followed:
 - An electric preferred code to be considered in 2024 that is based on the Erie code. Based on staff's analysis, it should be noted that such a code amendment would not likely provide significant energy savings due to the fact that most buildings constructed under Broomfield's existing code would already meet the requirements of this electric preferred code.

- An electric preferred code to be considered in 2024 based on the Denver code. If this direction is provided, Broomfield would need to either mirror the code in place for Denver or ask the DOE for a custom software program to administer the code (the timing for the completion would be up to DOE). This amendment would likely result in more energy savings, but would also increase the cost for residential and non-residential development. Staff would need time to try and determine potential cost impacts and to perform public outreach with builders.



City of Broomfield

City Council Study Session

Tree Preservation Plan/Regulations

Meeting	Agenda Group
Tuesday, May 21, 2024, 6:00 PM	Study Session Item: 2C
Presented By	
Anna Bertanzetti	
Community Goals	
<input checked="" type="checkbox"/> Growing Greener <input checked="" type="checkbox"/> Thriving, Diverse, Safe and Welcoming Community	

Overview

[View Correspondence](#)

This memorandum provides an overview of a potential update to the Broomfield Municipal Code (BMC) with respect to tree preservation requirements that would be applicable to new residential, commercial, industrial and Broomfield developments. Tree preservation is currently not captured through any plans, and is not a required component of site development plans or the development review process. This memorandum requests City Council's direction related to this tree preservation code.

Attachments

[Memo for Tree Preservation Requirements.pdf](#)
[DRAFT Tree Preservation Code 03.27.2024.pdf](#)

Summary

[View Correspondence](#)

This memorandum provides an overview of a potential update to the Broomfield Municipal Code (BMC) with respect to tree preservation requirements that would be applicable to new residential, commercial, industrial and Broomfield developments. Tree preservation is currently not captured through any plans, and is not a required component of site development plans or the development review process. This memorandum requests City Council's direction related to this tree preservation code.

Staff is proposing tree preservation plan requirements related to new development and redevelopment for residential, commercial, and industrial uses, that will implement tree protection and mitigation processes. The revised regulations are intended to also provide specific tree preservation requirements for significant trees, healthy trees, and natural areas; definitions of protective barrier materials and areas, terminology and tree preservation principles; and requirements for mitigation and tree preservation plans.

As drafted, the proposed code revisions would not require modifications of existing sites as constructed or previously approved for existing residential or non-residential developments. A draft of the proposed tree preservation code is attached to this memorandum for Council's review. It is intended that this draft code will trigger discussion about tree preservation to help maintain the existing tree canopy. Staff is requesting direction from Council regarding potential revisions to the proposed code. This draft will continue to be refined by staff and may not represent the final language presented to Council as part of a future ordinance. Additional outreach and engagement with developers, consultants and neighborhood HOAs and communities will be completed to improve the ordinance prior to bringing it back to City Council for formal consideration.

This study session provides details regarding the draft ordinance, a proposed timeline for ordinance consideration, and preliminary public engagement plans. The feedback provided by Council as part of the study session will provide direction as staff continue to improve the tree preservation requirements.

Financial Considerations

The proposed tree preservation code amendments are not anticipated to have a significant impact on the City and County of Broomfield's finances. The Senior Landscape Architect will be able to lead administration of the ordinance as drafted. The Senior Landscape Architect, Forester and forestry staff will be able to implement and uphold the code on-site. Staff will identify any anticipated staffing impacts based on feedback and direction that may be provided during review of the draft requirements as expanding the scope or complexity of the ordinance may result in additional costs associated with administration.

The tree preservation requirements will apply to future Broomfield projects that may impact existing trees. In addition to increasing budgets due to cost increases, there could be financial impacts for capital improvement projects (CIP) to adhere to the requirements of the tree preservation regulations unless Broomfield is exempted from the requirements. The tree preservation requirements would specify what the financial impact will be early in the process since there would be a standard fee and practice that could be

included when estimating projects. Since each project and potential impacts are unique, there is no method for being able to estimate the overall impact on city projects.

The proposed ordinance would create a fee that would be collected if it is not feasible to place required replacement trees onsite, on another site or on public lands and/or relocation of existing trees is not possible. This fee would be placed in an existing fund under a dedicated project code and then could be utilized by Parks for tree planting (including but not limited to tree support such as maintenance, installation of drip lines and drainage) and preservation programs (including the creation of new woodland areas, underplantings as part of a tree planting program, and other planting activities that support the purposes of this chapter), public education programs regarding trees, and other activities in support of the administration of this chapter.

Prior Council or Other Entity Actions

- [August 22, 2023](#) City Council approved Ordinance No. 2215, which repealed and replaced BMC 17-70 Residential Landscape Requirements with Chapter 17-70 Landscape Requirements for New Development.

Boards and Commissions Prior Actions and Recommendations

Not applicable

Proposed Actions / Recommendations

No formal action. Staff is seeking direction on whether Council desires move forward with additional community engagement regarding the tree preservation code update and bring forward an updated code ordinance for consideration by City Council.

Alternatives

Make no changes to the BMC at this time.

Background

During the City Council [January 17, 2023 study session](#), a multi-year effort to update Broomfield's development codes and plans was introduced to Council. The BMC landscape code does not incorporate tree preservation practices which are becoming more commonplace throughout the Front Range and Colorado. There were a number of factors driving the tree preservation code updates: firstly, Broomfield does not have a standard structure in place to hold developers and contractors accountable for unauthorized tree removals or required replacement for trees damaged during the construction process. Secondly, Broomfield anticipates a rise in redevelopment and infill development resulting in potential impacts to existing trees. Lastly, updating the BMC to promote tree preservation will lead to more attractive and functional public and private spaces, creating environments that are visually appealing and enhance quality of life for residents.

The proposed [2024 Open Space, Parks, Recreation, and Trails Master Plan](#) (OSPRT) encourages the adoption of Tree Preservation Standards. This proposed Tree Preservation Code incorporates the intent of this OSPRT Plan's tree preservation standards, and expands on the preservation requirements and applicability. By

updating this code, Broomfield is able to not only promote tree preservation, but help guide the aesthetics and design of new development for the well-being of both the environment and the community.

Comparison with Other Front Range Cities

In drafting the code, staff researched other local jurisdictions with tree preservation codes or plans. The tree preservation ordinances that were reviewed and compared were from the following municipalities:

- [Arvada](#)
- [Aurora](#)
- [Denver](#)
- [Fort Collins](#)
- [Westminster](#)

This draft code aligns with the current codes these local jurisdictions have in place, see below:

Comparison of Tree Preservation Codes of Surrounding Municipalities

Municipality	Plan Required	Applicable Sites	Tree Protection Barrier	Replacement Rate	Fines or Penalties	Cash-In-Lieu Option
Arvada	Tree Survey Site Plan showing all trees 2" DBH* or greater, protected, transplanted, removed and mitigation method	All new construction, 25% increase bldg footprint, Mod to existing landscape. Single-family excluded	4' tall orange fence with T-posts	Inches replaced equal inches removed (1:1 ratio)	Yes, varies	Yes, Determined by Director
Aurora	Tree Mitigation Plan, showing all trees 4" DBH* or greater, protected, transplanted, removed and mitigation method	All residential and non-residential Including City owned or managed. Single-family excluded	Shall be installed - no specified fencing	Inches replaced equal inches removed (1:1 ratio)	Yes, varies	Yes, Payment of value of caliper lost
Denver	Tree Protection Plan, protected, transplanted, removed and mitigation method	Issuance of permit for new construction, or additional structure with value \$100,00 or more, or demolition	6' tall chain link fence	Based on diameter measurements	Yes, \$1,000 to \$2,500 per incident	Yes, Market Rate

		permit in residential zone				
Fort Collins (Currently updating code)	Landscape and Tree Protection Plan, show trees 2.5" DBH* or greater	All development, single-family exempt	4' tall orange fence with T-posts	Inches replaced equal inches removed (1:1 ratio) up to 6 replacement trees	updating	updating
Westminster (Currently updating code)	Tree Preservation Plan, all trees 4" DBH* or greater, protected, transplanted, removed and mitigation method	Any site activity or disturbance	Min 4' tall chain link fence	2" DBH* replacement for each 1" DBH removed (2:1 ratio)	Yes, tree appraisals completed for damaged trees	Yes, Informally charge \$150 per inch lost

* DBH refers to the Diameter at Breast Height measuring the diameter of the tree trunk at a standardized height, which is typically 4.5 feet (1.37 meters) above the existing grade.

Current Broomfield Process

Currently there are no standardized requirements for tree preservation, mitigation, and replacement. It is left to the discretion of the developer or designer to keep or remove trees, and if any are to be replaced. If trees that have been marked to remain in place but are damaged during construction, Broomfield does not have a plan of recourse to hold contractors accountable. At this time, during the plan review process, mitigation can be proposed, however there are no regulations or requirements in place to require specific mitigation. Below are recent projects where standardized tree preservation and mitigation requirements would have been beneficial to determine necessary mitigation early in the process and provide consistent guidance.

Broomfield Town Square

To allow for the Broomfield Town Square development to occur, a large number of trees will need to be removed or relocated. As part of the development review process staff worked with the developer to identify trees that had to be removed as well as those that may be able to be relocated. To ensure the trees that were identified to be saved would remain protected during construction, the subdivision improvement agreement (SIA) included language that if any of the seventy-six (76) trees to remain and be protected are damaged/destroyed during construction, they will be mitigated at a 1" to 1" equal DBH replacement. This is equivalent to the 1 to 1 ratio currently being proposed in this ordinance. Therefore if an 8" DBH tree is damaged, then a new tree(s) will be installed to replace it at equivalent level which could include, for example, four 2" caliper trees or two 4" caliper trees, etc. Having a standard policy in place to ensure trees are protected during construction would have streamlined the review process and provided more clarity to the developer regarding what would be required if a tree is damaged during construction.

CIP Project Example: Siena Pump Station Improvements

Broomfield projects also can result in impacts to existing trees. With many projects the tree removal will be necessary to allow for critical infrastructure to be built in appropriate locations. One such example is the Siena Pump Station improvements. The location of the pump station is driven by the necessary function of the pump station and the existing configuration of the reservoir. Even though a pump station had long been planned in this location, trees had been planted and matured in the area that would be impacted by the pump station construction. As part of the design for the pump station, staff included new tree plantings in appropriate locations.

The site improvements at Siena Reservoir for a Pump Station with vehicle access, trail realignment and grading impacted the area requiring the removal of 52 mature evergreen trees. Having a tree preservation ordinance would not prevent the pump station from being built and would not have changed the location or design of the pump station itself. If Broomfield projects are required to comply with the requirements of the tree preservation ordinance, there could be additional costs if more trees are required than would have otherwise been incorporated into the design. There could also be fees levied on Broomfield projects if trees identified for preservation are subsequently damaged during construction.

In the case of the Siena Pump Station, the impacted trees equated to an estimated 520 inches of removed trees (52 trees to be removed at 10" diameter average). The final design included 126 inches of tree replacement. Since staff believed the design with the 126 inches of trees were appropriate given the context of the area, Broomfield would have likely needed to budget an additional \$80,000 to allow planting of additional trees equating to 394 inches in other areas of Broomfield or plan to pay a cash-in-lieu fee of approximately \$60,000. As an alternative, City Council can direct staff to exempt Broomfield projects from the specific tree preservation requirements and staff will continue to follow existing processes to try and minimize impact on trees where possible while incorporating quality landscape design as part of Broomfield projects. Broomfield does not typically pay other General Fund fees, such as fees associated with building permits or public/private improvement permits. The fees associated with the proposed ordinance would be revenue for the General Fund.

Applicable City and County of Broomfield Plans

Tree Preservation was identified as an area where code revisions were recommended in the Open Space, Parks, Recreation and Trails Master Plan of 2016. Community-wide development standards are identified in the Comprehensive Plan as follows:

- Goal LU-I: Development Standards - Use development standards and guidelines to help realize the community's overall vision and goals.
- Goal CF-A: Community form and Identity - Build on the established physical framework to strengthen Broomfield's sense of community identity by identifiably connecting neighborhoods, open lands, and residential and commercial areas, and by enhancing natural and human-made features.

Proposal and Discussion

Staff has drafted a new code for Chapter 17-71 ([Draft Tree Preservation Code](#)). While Broomfield is making considerable investments in improving landscape requirements for new development and redevelopment, there is minimal code related to restricting tree removal and replacement.

The draft code is attached to this memorandum for Council’s review and discussion. The following table lists what the proposed code update would and would not do.

What this PROPOSES to do:	What this DOES NOT propose to do:
<ul style="list-style-type: none"> Provides requirements related to tree preservation, mitigation, relocation and removal. 	<ul style="list-style-type: none"> Prohibit tree removal within the City and County of Broomfield.
<ul style="list-style-type: none"> Protect significant or exceptional specimen trees with Broomfield. 	<ul style="list-style-type: none"> Prevent new development from occurring if there are trees on a site.
	<ul style="list-style-type: none"> Require modifications of existing sites as constructed or previously approved.

Overview of the Proposed Tree Preservation Code

The draft code would utilize best forestry practices and establish guidelines for tree preservation while facilitating responsible land development in the City and County of Broomfield. This includes both the addition of trees wherever feasible and the utmost effort in maintaining the existing tree population. These measures aim to achieve multiple benefits for the community, such as:

- **Canopy Preservation:** Sustaining the tree canopy throughout the community to enhance and preserve the air quality. Trees filter air pollutants and replenish the atmosphere with oxygen.
- **Noise Reduction:** Trees act as natural barriers, reducing noise levels and creating a quieter environment.
- **Energy Efficiency:** Properly placed trees on properties serve as windbreaks and provide shade, contributing to the reduction of energy consumption.
- **Soil Protection:** Tree roots help prevent topsoil erosion, reducing stormwater runoff and preserving the quality of the soil.
- **Wildlife Habitat:** Trees offer habitat and food sources for birds and other wildlife, contributing to the preservation and enhancement of nesting areas and aiding in natural insect control.
- **Public Resource:** Trees are recognized as a valuable public resource that enriches the quality of life, maintains the unique character of the community, and contributes to its historical and aesthetic appeal. Additionally, they play a role in economic stability by attracting visitors and businesses.

Some highlights of the regulations are outlined below. This section is intended to be a very brief summary; please consult the complete draft code for more specifics and details:

- **Condition Rating for Tree Preservation.** The proposed code outlines requirements for evaluating the health and structural condition of trees based on a 1 to 6 rating scale where Condition 1 refers to trees that are in excellent condition and typical of the species through to Condition 6 that refers to trees that are dead. Significant trees and prohibited species are also defined.
- **Mitigation Requirements.** Removed trees are to be replaced at a rate to equal the tree inches lost in removal. Replacement trees are to be no less than two inches (2”) or more than three inches (3”) in caliper and are to be the same or higher quality species than that which was removed. If onsite tree replacement is not possible, replacement trees can be installed on a different approved site, public lands, or cash-in-lieu to the Tree Planting Fund. Mitigated trees are in addition to standard landscape requirements.
- **Protection of Existing Trees During the Construction Process.** A protective barrier consisting of a 6’ tall chain link fence is to be installed enclosing tree protection zones prior to the start of construction. No stockpiling of soil, vehicle parking, or compaction activities are allowed within the tree protection zone. If existing trees are damaged during the construction process, all efforts to repair are to be immediately undertaken and damage penalties will be calculated. If damaged beyond repair, mitigation requirements will be assessed.
- **Submittals.** A Tree Protection Plan is to be submitted in conjunction with the landscape and irrigation plans. All trees four inches (4”) or larger on the site and within 50’ of the site boundaries are to be identified. Proposed methods, materials and schedule for implementing tree maintenance and protection are to be included. A construction schedule, maintenance schedule and watering schedule are also to be submitted.

Inspection Process and Administration of Tree Preservation Code

Broomfield currently does limited tree inspections. Public parks constructed with new developments are inspected by Broomfield staff from the Parks, Recreation, and Senior Services Department. These inspections are primarily to verify the conditions trees proposed to be planted. They also verify tree planting was done correctly and appropriate staking is completed.

With the requirements proposed with the new tree preservation code and the movement toward specific tree preservation materials and construction specifications, inspections will need to be completed by the landscape architect and/or Broomfield staff from the Parks, Recreation, and Senior Services Department. An existing conditions inspection, preservation methods installation inspection, along with periodic inspections while onsite during construction, and a final inspection prior to removal of preservation methods will be completed.

Additional staffing would be required if additional periodic inspections during construction are requested or if single-family residential lot landscaping is inspected.

Public land dedications, city-owned and city-financed projects are subject to this code unless the property is specifically exempted based on the specific Open Space characteristics of the property.

Further prescriptive requirements in the proposed code update may trigger additional staff resources for tree preservation plan inspections. Based on direction received at the study session and during public engagement, staff will continue to identify any potential impacts to administration of the code as well as potential impacts on necessary staff time to administer said revisions.

Public Engagement

A Broomfield Voice page will be created following this study session. This page will provide information regarding the proposed tree preservation requirements that will be presented to City Council as part of a future proposed ordinance. Broomfield Voice provides a venue for comments and concerns regarding the proposed amendments to Chapter 17 of the Broomfield Municipal Code, where community engagement is encouraged. Comments received will be gathered and summarized as part of the public hearing process. This webpage will also include visual renderings of examples of tree preservation. Staff intends to utilize the weekly community update and social media posts to encourage engagement with the Broomfield Voice page.

Additionally, staff is planning to host an open house prior to the first reading of the ordinance to introduce the proposed changes to residents, developers, HOAs, and business community members. This would be an opportunity to answer any questions and receive input on the proposed regulations. Examples of what tree preservation requirements and mitigation options look like will be provided via visual renderings during this open house.

There will be an opportunity at the public hearing for the second reading of the proposed ordinance for additional public comments to be provided for City Council's consideration.

Advisory Committee Input

Staff has presented the early draft of the tree preservation ordinance to Advisory Committee on Environmental Sustainability (ACES) and Open Space and Trails Advisory Committee (OSTAC) and is scheduled to present it to Parks, Recreation and Senior Services Advisory Committee (PRSSAC) in their May meeting.

Advisory Committee on Environmental Sustainability

At the ACES meeting in March, staff received support for the tree preservation code. Committee members appreciated the standardizing of the methods and materials. Concern was expressed over developers jumping to the cash-in-lieu option for tree replacement instead of attempting to save trees or install mitigation trees onsite. Staff stated that with the tree preservation plan being required in the early stages of the site development process, developers will be encouraged to protect existing trees and to exhaust the other methods of mitigation prior to asking for approval to apply the cash-in-lieu option.

Committee members also discussed the 'market rate' and how it may best be addressed. The proposed market rate per tree inch to be replaced is \$125. This is based on Denver's current rate for tree replacements. Current market rates will be set forth in the Fee Schedule found in the City and County of

Broomfield Landscape Reference Manual and such fees may be adjusted annually based on market changes. Payment must be submitted prior to the Development Construction Permit issuance or other required permits.

ACES moved to support recommending City Council move forward with consideration to adopt the tree preservation code.

Open Space and Trails Advisory Committee

OSTAC members are very supportive of the Tree Preservation Code and what it can do to help Broomfield continue to create a beautiful and healthy community. Committee members appreciated that the Cash-in-Lieu rate could be adjusted to match market rates. They also appreciated that if a tree were to be damaged to the extent of requiring removal during construction, the developer/contractor would be fined for the damage and for the appraised value of the tree as well as be required to mitigate replacement.

The replacement rate of 1:1 ratio, for every tree inch removed and equal amount of tree replacement inches to be installed was discussed. Staff confirmed that the 1:1 ratio is also used in neighboring municipalities. Fort Collins tree preservation requirements further expand on the 1:1 ratio with a cap of 6 trees. For example, if a 20" tree was removed, at the 1:1 ratio 20" of tree is needed for replacement. Standard replacement would be ten 2" trees, however as Fort Collins code is written, a maximum of six 2" trees would be required. Committee members debated if this is something we would like to consider including our tree preservation code as well.

OSTAC moved to support recommending City Council move forward with consideration to adopt the tree preservation code.

Request for Direction

Staff is seeking Council's direction regarding the tree preservation ordinance.

Question for City Council to Consider when Providing Feedback:

- Would Council like staff to begin community engagement and bring back an ordinance for consideration regarding a tree preservation ordinance?
 - If yes, then does City Council want City projects to be exempted from these requirements?

Tree Preservation B.M.C. 17-71

010 - Purpose. The purpose of this chapter is to establish guidelines for tree preservation while facilitating responsible land development in the City and County of Broomfield. This includes both the addition of trees wherever feasible and the utmost effort in maintaining the existing tree population. These measures aim to achieve multiple benefits for the community, such as:

- *Canopy Preservation:* Sustaining the tree canopy throughout the community to enhance and preserve the air quality. Trees filter air pollutants and replenish the atmosphere with oxygen.
- *Noise Reduction:* Trees act as natural barriers, reducing noise levels and creating a quieter environment.
- *Energy Efficiency:* Properly placed trees on properties serve as windbreaks and provide shade, contributing to the reduction of energy consumption.
- *Soil Protection:* Tree roots help prevent topsoil erosion, reducing stormwater runoff and preserving the quality of the soil.
- *Wildlife Habitat:* Trees offer habitat and food sources for birds and other wildlife, contributing to the preservation and enhancement of nesting areas and aiding in natural insect control.
- *Public Resource:* Trees are recognized as a valuable public resource that enriches the quality of life, maintains the unique character of the community, and contributes to its historical and aesthetic appeal. Additionally, they play a role in economic stability by attracting visitors and businesses.

020 - Applicability.

(A) *General.* The tree preservation requirements of this Chapter 17-71 shall apply to the following properties:

- (1) All new developments, including residential and non-residential, that are to be constructed by a developer or property owner;
- (2) All construction projects that cumulatively increase the gross floor area of the lot by sixty-five percent (65%) or more;
- (3) The partial or total redevelopment of a parcel, including demolition and new construction;
 - (i) Redevelopment of a parcel means the demolition of an existing structure or building including any site disturbance, such as earthwork or grading, in anticipation of new development.
- (4) All public land dedications as required by the 2024 OSPRT Plan or as may be approved in a future code amendment regarding public lands dedications, shall comply with the provisions of this chapter unless such property is specifically exempted from these regulations based on the specific Open Space characteristics of the subject property as approved by the city and county manager or their designee.
- (5) All properties within the City and County of Broomfield including city-owned and city-financed projects. Parks and Open Spaces shall comply with the provisions of this chapter unless such property is specifically exempted from these regulations based on the specific Open Space characteristics of the subject property as

approved by the city and county manager or their designee.

(B) *Exempt Properties:*

- (1) Existing single family detached residential properties.
- (2) Accessory Dwelling Unit (ADU) construction on single family residential properties.

030 - Definitions. As used in this chapter, unless the context clearly requires otherwise, the following words and terms shall have the meanings set forth in this section:

- (A) *Aggregate Diameter* means the combined diameter of a multiple trunk tree measured at Breast Height.
- (B) *Caliper* means the diameter of a tree trunk six inches (6") above the existing grade or proposed planted grade. Caliper is usually used in reference to nursery stock.
- (C) *Critical Root Zone (CRZ)* means the distance radially from the trunk that equals one and one half foot (1.5') for every inch of the tree's DBH.
- (D) *City Forester* means Broomfield's Forestry Division responsible for trees and shrubs in public parks, parkways, open space, and other public property. Broomfield's right-of-way and street trees are under regulation of the City Forester.
- (E) *Development Process* means the intent to construct upon, improve, or modify any property within the City and County of Broomfield, whether governed by a Site Development Plan (SDP) or Urban Renewal Site Plan (URSP) or not.
- (F) *Diameter at Breast Height (DBH)* means the standard measurement used in forestry and tree studies to assess the size of a tree trunk. DBH is determined by measuring the diameter of the tree trunk at a standardized height, which is typically 4.5 feet (1.37 meters) above the existing grade. This measurement is taken using a tape measurer and is commonly used as an indicator of a tree's size, growth, and maturity.
- (G) *Drip Line* means the outermost edge of the tree's canopy or branch spread. The area within a tree's drip line is all the ground under the total branch spread.
- (H) *Intent* means having the mind, attention, or will to develop, modify, construct or improve real property within the City and County of Broomfield.
- (I) *Mitigation* means the replacement of trees removed from a site, the relocation of existing trees, the planting of new trees to compensate for caliper inches lost, or cash payments to the Tree Planting Fund as directed in this section when trees are impacted due to the development process.
- (J) *Preservation* means the act of keeping existing trees safe from injury, harm or destruction during the development process.
- (K) *Protection barrier* means the physical and highly visible barrier around trees or trees to be preserved, including the root zone. Use chain link fencing 6' high, with steel posts driven into the ground at not more than ten foot (10') intervals. The protection barrier shall remain in place, upright, and in good condition for the duration of the development activity.

- (L) *Relocation* means the practice of moving an existing tree to another site or other location within the same site.
- (M) *Tree Planting Account* means a project code under an existing fund established for the City and County of Broomfield for the purposes of furthering tree maintenance and tree replacement. The monies received in lieu of replacement of removed trees shall be forwarded to the Chief Financial Officer for deposit in the tree preservation account. Except as provided in this section, under no circumstances shall the funds collected by the Chief Financial Officer for the tree preservation account be directed to any other fund to be used for any other purposes other than for tree planting (including but not limited to tree support such as maintenance, installation of drip lines and drainage) and preservation programs (including the creation of new woodland areas, underplantings as part of a tree planting program, and other planting activities that support the purposes of this chapter), public education programs regarding trees, and other activities in support of the administration of this chapter.
- (N) *Tree Protection Zone (TPZ)* means the area above and below grade around each tree where construction activities are limited or restricted to prevent injury to preserved trees.
 - (1) The Tree Protection Zone shall extend radially at a minimum one and one half foot (1.5') from the base of the trunk for every one inch (1") of tree DBH.
 - (2) For areas with groups or groupings of trees, if the distance between trees is less than thirty feet (30'), the Tree Protection Zone may be combined and treated as one contiguous Tree Planting Zone to create a more clearly defined and manageable Tree Protection Zone.

040 - Submittals.

- (A) *Tree Preservation Plan.* Submit a tree preservation plan in conjunction with the landscape and irrigation plans for approval by the City Landscape Architect, City Forester, or designee. The tree preservation plan shall show the mitigation actions that will equal the replacement of tree inches lost on site as noted in Chapter 17-060. These plans shall be submitted and approved prior to any site activity or disturbances and shall include:
 - (1) The plan shall identify all existing trees 4" DBH and larger on the site and within 50' of the site boundaries. The plan shall include a chart specifying size, species, condition and disposition as noted in Chapter 17-71-050 Condition Rating for Tree Preservation for each existing tree.
 - (2) Proposed methods and schedule for implementing tree and other plant protection as noted in Chapter 17-71-070 shall be submitted for approval.
 - (3) Proposed methods, materials, and schedule for root pruning, branch pruning, and other tree maintenance as noted in Chapter 17-71-070 shall be submitted for approval.
 - (4) Construction Schedule: Contractor shall submit a construction schedule which includes a time frame for work near existing plants. Approval of such shall be obtained from the City Landscape Architect, City Forester, or designee prior to

commencement of construction near Tree Protection Zones.

- (5) Maintenance Schedule: Submit maintenance schedule to the Project Manager for approval by City Landscape Architect, City Forester, or designee.
- (6) Watering plan and schedule: Submit a watering plan and schedule to the Project Manager for approval by the City Landscape Architect, City Forester, or designee prior to the start of work that details watering of trees on the Project Site. The below information shall be included:
 1. Area of the project site to be watered and how watering will be phased based on construction.
 2. Number of trees to be watered and total caliper inches. Identify the amount of water to be applied based on total caliper inches.
 3. Schedule for watering during the duration of the project.
- (7) Watering log: Submit a tree watering log that provides the following information:
 1. Tree(s) watered, identified by the City site identification number.
 2. Number of gallons of water applied to each tree during every watering period.
 3. Soil moisture level readings, on a scale of one to ten (1 - 10) throughout the Critical Root Zone for each tree.
 4. Dates of each watering.

050 - Condition Rating for Tree Preservation. An evaluation of tree health and structural issues, with condition rating 1 being the highest rating, and condition rating 6 being the lowest rating of tree health and structure. The characteristics of trees having condition ratings 1 - 6 are summarized below. Tree ratings should be completed by a qualified/experienced arborist. Any required tree appraisals shall be performed by the City Forester.

(A) Tree Rating Characteristics.

- (1) Condition 1: Excellent - The tree is typical of the species, has less than ten percent (10%) deadwood in the crown that is attributable to normal causes, has no other observed problems, and requires no remedial action.
- (2) Condition 2: Good - The tree is typical of the species and/or has less than twenty percent (20%) deadwood in the crown, only one or two (2) minor problems that are easily corrected with normal care.

- (3) *Condition 3: Fair* - The tree is typical of the species and/or has less than thirty percent (30%) deadwood in the crown, one or two (2) minor problems that are not eminently lethal to the tree, and no significant decay or structural problems, but the tree may need remedial care in order to minimize the impact of future stress and to ensure continued health.
- (4) *Condition 4: Fair to Poor* - The tree is typical of the species but has some problems such as thirty percent (30%) to fifty percent (50%) deadwood in the crown, decay or structural defects, insects, disease or other problems that can be eminently lethal to the tree or create a hazardous tree if not corrected in a short period of time or if the tree is subjected to additional stress.
- (5) *Condition 5: Poor* - The tree is not typical of the species and/or has over fifty percent (50%) deadwood in the crown, major decay or structural problems, is hazardous or is severely involved with insects, disease, or other problems, that even if aggressively corrected, would not result in the long-term survival of the tree.
- (6) *Condition 6: Dead* - Less than ten percent (10%) of the tree shows signs of life.

(B) *Trees with Ratings of 5 or 6 and Non-Desirable Trees*

Trees Rating Characteristics of 5 or 6 and non-desirable trees do not need to be mitigated and replaced.

(C) *Significant Trees*

Significant Trees includes all of the following:

- (1) Private protected tree means any tree with a DBH of six inches or more located on any lot within twenty feet of a street right-of-way (including an approved private street or other access easement) or a tree with a DBH of eight inches or more located within ten feet of any other property line, or a tree with a DBH of twelve inches or more located elsewhere on the lot.
- (2) Public protected tree means any tree located on lands owned by the city, or other governmental agencies or authorities, or any land upon which easements are imposed for the benefit of the city, or other governmental agencies or authorities, or upon which other ownership control may be exerted by the city, or other governmental agencies or authorities. This includes rights-of-way and privately maintained trees within the public rights-of-way, parks, open space, public areas and easements for drainage, sewer, water and other public utilities, with:
 - (i) A DBH of six inches or more located within a city or other governmental right-of-way, or

- (ii) A DBH of six inches or more and located on any lot within twenty feet of a street right-of-way, or
 - (iii) A DBH of eight inches or more located on any lot within ten feet of any other property line, or
 - (iv) A DBH of twelve inches or more located elsewhere on the lot.
- (3) Exceptional specimen tree means any tree which is determined by the City Council to be of unique and intrinsic value to the general public because of its size, age, historic association or ecological value or any tree designated a Colorado State Champion, United States Champion or World Champion by the American Forestry Association. The City Forester shall keep a record of all specimen trees so designated and their location.

(D) Prohibited Plant Species.

See Chapter 17-70 of the Broomfield Municipal Code for a list of prohibited plant species.

060 - Mitigation.

(A) Requirements. Properties in this category must comply with the following items:

(1) Mitigation.

- (i) A tree preservation plan shall be specified. These plans shall show the mitigation actions that will equal the replacement of tree inches lost on site. These plans shall indicate the trees that are proposed to comply with mitigation requirements, including the location of replacement trees and the location of trees that are proposed for relocation. No tree for mitigation shall be less than two inches (2") or more than three inches (3") in caliper and shall be of no less quality species than the tree removed, as determined by the Tree Appraisal Guidelines published by the International Society of Arboriculture (ISA), as amended.

For example: two nine-inch DBH trees are removed because of site constraints; the tree inches lost equals 18 inches. These inches can be replaced by planting nine two-inch caliper trees or six three-inch caliper trees. Evergreen trees (i.e. Fir, Juniper, Pine and Spruce) are to be replaced with deciduous trees with the same level of quality by the ISA Guidelines, unless approved by the City Landscape Architect.

- (ii) Site designers shall make all feasible attempts to accommodate existing trees within their design.
- (iii) Should on-site tree replacement and/or relocation not be possible, tree replacement and/or relocation shall take place through any or

all of the following methods:

- Replacement of equal tree inch lost on another site.
- Replacement of equal tree inch lost on public lands.
- Relocation of trees to public lands.
- Payment of value of tree inch lost to Tree Planting Account.

(iv) Tree replacement and/or relocation is to occur within the City and County of Broomfield.

(v) If tree relocation within the site is attempted, it shall be performed by a professional forester or nurserymen. All measures shall be taken to ensure the life and good health of the tree(s).

(vi) The payment in lieu mitigation fee per tree inch is determined by the City Landscape Architect, City Forester or designee based on current market rates as set forth in the Fee Schedule found in the City and County of Broomfield Landscape Reference Manual and such fees may be adjusted annually based on market changes. Payment must be submitted prior to the Development Construction Permit issuance or other required permits.

(2) Mitigation shall be in addition to standard landscape requirements established by the Planning Division. Trees planted to comply with standard landscape requirements may not be counted as satisfying tree mitigation requirements. In the case of tree removals, the location, species, and DBH of trees to be removed and their replacements shall be included on the landscape/site plan. In the case of tree relocations on site, the placement of the relocated trees shall be included on the landscape/site plan. Any required tree appraisals shall be performed by the City Forester following the evaluation criteria as listed in Chapter 17-71-070.D.1.ii.

(B) Projects on City and County of Broomfield Property.

Healthy trees within CCOB-owned properties, CCOB-owned or designated street rights-of-way, CCOB-managed properties and easements or CCOB-managed projects, shall not be removed or damaged during construction or development projects, except as a last alternative or to preserve public health and safety. Future planning or alteration of existing CCOB properties, projects or rights-of-way shall make provisions for the preservation of existing trees. If preserving existing trees is not feasible, CCOB Departments shall follow the same rules and guidelines set forth in Chapter 17-71-060.

070 - Procedures.

(A) Protection of Existing Trees During the Construction Process

Site construction shall take into account the life and good health of trees preserved

on the site. The following guidelines shall be followed for tree protection. If these guidelines are not followed, the full value of the tree will be used in calculations to determine mitigation requirements.

- (1) Protective barrier shall be set up to visibly show the tree protection zone.
- (2) All equipment, including foot traffic shall remain outside of the tree protection zone.
- (3) If roots greater than 1-inch in diameter require removal, a clean cut shall be accomplished using a sharp hand tool. A maximum of two 3-inch diameter roots per tree are permitted for removal. The removal of additional roots 3-inches or greater in diameter requires approval of the City Landscape Architect, City Forester, or designee.
- (4) Limb removal shall be accomplished before construction begins. A professional arborist company shall complete all pruning.
- (5) Designate concrete washout areas. These areas shall not flow into or across the tree protection zone.
- (6) No excavation is permitted within the tree protection zone. If excavation is required within the tree protection zone, the City Forester must be notified prior to start of excavation activities.
- (7) No branches or bark are to be damaged within the tree protection zone.
- (8) No stockpiling of soil, materials, or supplies of any kind are permitted within the tree protection zone.
- (9) No vehicle parking is permitted within the tree protection zone.
- (10) The soil shall not be compacted within the tree protection zone.
- (11) Existing trees damaged through the construction process shall be immediately repaired and if damaged beyond repair, replaced per the mitigation specifications outlined in Chapter 17-71-060 and damage penalties as outlined in Chapter 17-71-070.D will be applied. The restoration plan for these trees shall follow that approved through the site plan submittal.

(B) Interruption and Maintenance of Drainageways

- (1) Drainage plans for individual sites shall not alter the supply of water to existing stands of trees if the longevity of those trees is dependent upon the flows. If the drainage of the site requires altering the existing supply of water, some alternative form through the use of irrigation shall be available from the time the existing watering source is eliminated.
- (2) This policy shall not preclude standard maintenance of drainageways necessary to ensure the free flow of stormwater. It will, however, protect those trees that

do not interfere with the flow of storm drainage. Drainageways shall be maintained at the density of trees for which they were designed and future drainageways shall be designed, as far as economically feasible, to consider preservation of mature stands of trees. If preservation is not possible, mitigation and/or replacement shall be accomplished, as outlined in Chapter 17-71-060.

(C) Timing for Tree Mitigation Activities

Tree preservation and/or mitigation may be accomplished at any time during the development process. The timing of these activities is especially critical when moving trees from one location to another. The City Landscape Architect, City Forester, or designee, shall determine the conditions that will ensure the optimal success for tree relocation, preservation or mitigation.

When feasible, the decision to relocate trees will be made after all Planning process requirements are completed. In cases where conditions necessitate the relocation of trees before all Planning processes are complete, the Developer and adjoining property owners shall be notified that these activities do not guarantee project approval and that these activities are undertaken at the Developer's risk.

(D) Injuries to Existing Plants - Damage Penalties

(1) Damage Penalties

- (i) Any plants designated as requiring retention or protection that are partially injured or lost due to Contractor neglect or improper construction activities will result in a penalty as determined by the City Landscape Architect, City Forester, or designee, as described in Chapter 17-71-070.D.1.iii.
- (ii) Tree Appraisal: All trees that are damaged during construction will be evaluated and appraised by the City Landscape Architect, City Forester, or designee. Documentation for appraisals will consist of:
 - a. Measurement of plant size.
 - b. Identification by common and botanical names.
 - c. Current condition (overall health, injuries, overt hazard status, etc.).
 - d. Location factors as described in the most current edition of "Guide for Plant Appraisal". Photographs may be taken of certain trees and shrubs to document debilitating condition factors.
- (iii) Fines: A fine of one-thousand dollars (\$1,000.00) will be levied against the Contractor for each incident of construction damage, including construction traffic within designated Tree Protection Zones. This fine shall be independent of any applicable damage penalty for the appraised value

of the tree.

DRAFT



City of Broomfield

City Council Study Session

Low Density Regulation Update

Proposed Amendment to R-1 for House Size and Lot Size

Meeting	Agenda Group
Tuesday, May 21, 2024, 6:00 PM	Study Session Item: 2D
Presented By	
Anna Bertanzetti	
Community Goals	

Overview

[View Correspondence](#)

This study session discussion is being held for staff to present to Council options for allowing reduced house and lot sizes in the low density residential districts to support more diversity in housing options. This study session is intended to provide an opportunity for discussion and to receive direction from Council prior to staff bringing forth a formal ordinance for consideration.

Attachments

[Memo for Low Density Residential Regulation Update.pdf](#)

Summary

[View Correspondence](#)

This study session discussion is being held to present to Council options for allowing reduced house and lot sizes in the low density residential districts (R-1 and any future low density PUD districts) to support more diversity in housing options. This study session is intended to provide an opportunity for discussion and to receive direction from Council prior to staff bringing forth a formal ordinance for consideration.

Changing the R-1 district would modify the development standards for all properties currently zoned R-1, including those already developed and occupied. The modified standards could include reduced setbacks that allow additions to existing dwellings, potentially new detached accessory dwelling units, beyond what could occur under the development standards currently in place. It also could result in some additional subdivision of infill lots where there are oversized lots zoned R-1 that would qualify for subdivision if the minimum lot size was reduced.

The changes would apply to future low density residential development in PUD plans proposed through the development review process in the future.

No changes are proposed to properties zoned PUD with specific low density development standards established through the PUD plan for the neighborhood. Examples include Anthem, Wildgrass, Westlake, Lac Amora, Broadlands, and Redleaf.

Financial Considerations

Potential financial impacts would be through the ability for homeowners within low density residential districts to make additions to their property resulting in increased permitting fees and home valuation. Additional residential lots could be created due to increased density allowance in future low density residential zone districts.

Prior Council or Other Entity Actions

[January 16, 2024](#) study session outlining some options for revising the residential development regulations in the Broomfield Municipal Code.

Boards and Commissions Prior Actions and Recommendations

N/A

Proposed Actions / Recommendations

No formal action. Staff is seeking direction on whether Council desires to move forward with additional community engagement regarding potential updates to the low density residential lot standards and house size requirements and bring forward an updated code ordinance for consideration by City Council.

Alternatives

Make no changes to the B.M.C. at this time.

Background

Broomfield's Zoning Ordinance was originally adopted in 1973 as part of ordinance No. 149. The ordinance established a combination of Euclidean zoning and planned unit development districts. Euclidean zoning districts include Broomfield's primary residential zone districts, R-1 Low-Density Residential, R-3 Medium-Density Residential and R-5 High-Density Residential. The City also has Estate, Rural Residential, and Agricultural zone districts which are specifically intended for larger size lots with a more rural character.

Since the creation of the residential districts in 1973, few significant updates have been made. Euclidean zoning is used by many municipalities due to its ease of implementation, long-established legal precedent, and familiarity to planners and design professionals. However, Euclidean zoning often lacks flexibility and the fairly rigid separation of uses can contribute to urban sprawl, loss of open lands, heavy infrastructure costs, and automobile dependency.

In response to Euclidean zoning, many communities, including Broomfield, have also incorporated Planned Unit Development (PUD) zoning into their municipal zoning codes. PUD zoning is a type of flexible and inclusionary zoning, (non-Euclidean zoning) that allows for a mix of land uses and varied development standards within a designated land area. PUD-zoned lands require site plans and encourage innovations in design such as clustering of residences, conservation of open areas, allowing mixed-use housing and land uses, promoting a more efficient use of land, reducing infrastructure needs, promoting environmental preservation and sustainability, and allowing general development flexibility.

Broomfield has uniform standards for low density residential PUD areas that are similar, but not identical, to the standards utilized in Broomfield's R-1 zone district. These PUD standards, which are based on a minimum lot size of 7,000 square feet, have shaped many of Broomfield's residential subdivisions up until recent years when PUD developments have moved toward smaller single family lots and more housing diversity through middle housing options like duplexes and townhomes. Examples of this type of small lot development include certain single-family development areas in Baseline in north Broomfield, Willow Park West southeast of Midway Blvd and Sheridan Blvd, and Cityscapes at the Views southwest of SH 128 and Interlocken).

Broomfield Comprehensive Plan

The 2016 Broomfield Comprehensive Plan identified that it is critical that, "Broomfield promotes a range of housing options that will meet both current and future residents' changing needs and conditions, and that support the community." Some of the goals, policies and action steps from the Comprehensive Plan include:

Goal HO-B: Maintaining Housing Affordability/Attainability, Encourage an adequate supply of affordable/attainable housing for lower-income households.

Policy HO-B.1: Plan for future affordable/attainable housing that meets the needs for the workforce and special populations.

Action Step HO-B.1.3: Identify possible regulatory modifications that may be appropriate to promote attainable, sustainable and quality housing for lower-income households. This may include evaluating residential design standards, review procedures, permit fees, density requirements, inclusionary and restricted housing, etc.

Goal HO-C: Diversity of Housing Types and Ownership Options, Encourage a diversity of populations within developed areas by providing a variety of housing types that serve a broad spectrum of households.

Policy HO-C.2 Promote a diversity of housing types, styles, and price points within individual neighborhoods to accommodate a range of affordability.

Action Step HO-C.2.1: Evaluate and establish potential locations for different housing types to provide a full spectrum of housing options.

Action Step HO-C.2.2: Identify potential gaps in the current and projected housing supply, and develop and consider programs to address these gaps.

Existing Conditions

When the zoning ordinance was first created, the social and economic conditions within the City and County of Broomfield and across the country differed from modern times. At that time, low-density single-family development was the primary living condition and was financially feasible for many Americans. Many of these single-family neighborhoods have since become unaffordable and exclusionary to potential residents.

Across the country and the state, communities are considering updates to residential development requirements to incentivize sustainable growth and development patterns as well as income-aligned housing options. The intent of these efforts is to help communities align policies and regulations to focus on locating various types of housing in locations near jobs, transit, and services and to ensure a mix of housing types and price points throughout a community.

In 2023, [Senate Bill 213](#) was proposed with the intent to establish “a process to diagnose and address housing needs across the state, addressing requirements for the regulation of accessory dwelling units, middle housing, transit-oriented areas, key corridors, and manufactured and modular housing, prohibiting certain planned unit development resolutions, prohibiting a local government from enforcing certain occupancy limits, modifying the content requirements for county and municipal master plans, prohibiting certain municipalities from imposing minimum square footage requirements for residential units, requiring entities to submit a completed and validated water loss audit report to the Colorado Water Conservation Board, prohibiting a unit owners’ association from prohibiting certain kinds of housing, requiring the Transportation Commission and the Department of transportation to modify the State Highway Access Code, criteria for certain grant programs, and expenditures from the multi-modal transportation options fund to align with State Strategic Growth Objectives and making an appropriation.” Although this bill did not become law, in 2024 portions of the bill were reintroduced related to density near transit ([HB 1313](#)), accessory dwelling units ([HB-1152](#) and [SB 154](#)), and occupancy limits ([HB 1007](#)). Discussion around these topics such as regulations for middle housing (medium density housing), accessory dwelling units, and occupancy limits, continue to be a key discussion among those in state and local government in Colorado.

Based on Broomfield’s September 2023 [Housing Needs Assessment](#), housing prices within the City and County of Broomfield have steadily increased over the past decade, resulting in a significant number of cost burdened households. Cost burdened means the household is spending more than 30 percent of the household income on housing. In 2021, 45% of all renters in Broomfield were cost burdened, with 20% being severely cost burdened. Those who face severe cost burden are considered at-risk for homelessness from eviction or foreclosure. The assessment also identified that in 2021 there was a 1,662-unit shortage for rental units for households earning less than \$50,000 per year.

There are over 3,658 properties exclusively zoned for single family residential through the [R-1 zone district](#). Allowing for smaller lot sizes and smaller home sizes could provide opportunities for infill development within existing areas. Decreasing the lot size would allow more units to be built per acre (increasing allowed density). Currently, in low density residential development within PUD districts the average density is not intended to exceed four units per acre unless approved as a variance from the uniform standards through the PUD plan or SDP.

When considering an adjustment to the minimum lot size, it will be necessary for Council to also consider amending the minimum setbacks to ensure the smaller lot sizes can remain viable for development. Reducing minimum setbacks for existing residential subdivisions could provide opportunities for existing homeowners to reinvest in their properties for additions or detached structures, such as accessory dwelling units.

The table below provides some examples of minimum lot area, setbacks, and lot widths for the R-1 District as well as some recent single-family residential detached home developments in planned unit development districts.

Zone District or PUD Plan	Minimum Area	Front	Rear	Side Yard	Lot Width
R-1 District	7,000 sq. ft	25'	25'	5' 20' corner Total of both sides must be at least 15' and not less than 15' of separation from adjacent principal building on next lot	70' interior 80' corner
PUD District (Uniform Standard from BMC)	7,000 sq. ft.	25'	25'	20' corner Interior setback based on building height: 10' if less than 27.99' 12' if 28'-30.99' 14.5' if 31'-33'	70' interior 80' corner
Skyestone SFD Patio Homes PUD	6,000 sq. ft	20' to garage face 12.5' to garage side	5' 15' corner	5'	60' interior 70 Corner
Skyestone SFD Courtyard Homes PUD	5,500 sq. ft	20' to garage face 12.5' to garage side	5' 15' corner	5'	55' min 65 Corner
Dillon Point SFD Not Alley	5,250 sq. ft	15' House 20' Garage	15'	12.5' corner 5' interior	50' min 57.5' corner

Loaded PUD					
Highlands PUD	5,000 sq. ft	20'	15'	7.5' interior 15' corner	50' interior 60' corner
Palisade Park Hearthstone PUD	5,000 sq. ft	20' 15' to side loaded garage	15'	5'	50' interior 60' corner
Dillon Point SFD Alley Loaded PUD	4,000 sq. ft.	10'	8' without parking 19' with Driveway for Parking	5' interior 15' to Alley 10' to right of way	40' min 45' corner

The BMC currently outlines minimum home floor area requirements in the R-1 zone district as 950 square feet. Additionally, Broomfield requires a minimum of 400 square feet for each resident in a household group (such as a group home) regardless of zoning district. Based on the recent passage of HB24-1007, staff believes the minimum square footage per resident that is only applicable to household groups will need to be removed from code since it is an additional limitation placed on occupancy if residents are not related to one another. A separate ordinance will be brought forward in the coming months to address necessary code updates based on HB24-1007.

Potential Updates

This study session outlines a potential option for moving forward with revisions to the R-1, Low Density Residential district requirements and low density residential developments within future planned unit development districts. A separate study session will be provided in the future regarding potential updates to the medium and high density residential districts.

The potential updates included in this study session would not apply to Estate districts (E-1, E-2, and E-3), the Rural Residential (RR), or Agricultural (A-1) districts. These districts occur in areas where the infrastructure may not support increases in density. For example, some neighborhoods may have individual septic systems rather than an opportunity to connect to Broomfield's sanitary sewer system and some neighborhoods feature rural roads built without sidewalks. For this reason, this memorandum will focus on the R-1 District as well as the uniform standards utilized for Low Density Single Family in Planned Unit Development Districts. Given the size of the larger, more rural lots, they could still potentially be developed with additions or detached structures such as ADUs if there is adequate infrastructure possible to support the changes.

The potential updates included in this study session would not modify existing planned unit development plans with specified development standards for low density residential developments. It is possible to amend standards incorporated into PUD plans, but the process would be more complicated. PUD plans often involve specific architectural and development standards that were considered at the time of approval for the neighborhood.

Reduce Lot Size Requirements in R-1 District

The BMC currently outlines minimum lot sizes in the R-1 district as 7,000 square feet. Reducing minimum lot sizes can allow for the creation of more residential lots within the City and County of Broomfield. In most recent developments, developers have requested and been granted approval for minimum lot sizes less than 7,000 square feet as outlined in the previous table.

Based on recent development approvals, staff is proposing a reduction of 2,000 square feet in the minimum lot area for low density residential in R-1. This reduction will provide opportunities for more housing variety and a moderate increase in density from a maximum of 6.2 units per acre to a maximum of 8.7 units per acre.

Zone District or PUD Plan	Minimum Area	Front	Rear	Side Yard	Lot Width
PROPOSED	5,000 sq. ft	20' to garage face 15' to non garage architecture	15'	5' interior 15' corner	50' min 60' Corner

As part of this update, staff would recommend also considering updates to the allowable encroachments for decks, garages, carports and porches. In non-PUD districts these improvements can encroach up to six feet into the front or rear yard of a property. Given the reduced setback for the R-1 district, staff would recommend removing the allowance of further encroaching a deck, garage, carport or porch into these reduced setbacks for properties zoned R-1. If Council directs staff to prepare an ordinance, staff will provide specific changes needed in regard to encroachment within the ordinance.

Reduce House Size Requirements

The municipal code requires houses in the R-1 district to have a minimum floor area of 950 square feet. Broomfield typically sees new residential houses exceed this requirement with at least 1,200 square feet.

Staff is recommending a slight reduction in the minimum home size to 800 square feet. This aligns with the maximum size of an accessory dwelling unit (an accessory dwelling unit maximum size is also influenced by the size of the primary home on the lot and therefore an 800 square foot home could only have a 400 square foot accessory unit).

A “tiny home” community, which typically includes homes of less than 400 square feet, could be considered under a customized PUD zone district. Staff believes this custom zoning approach is appropriate for tiny homes since other development standards may also need to be modified, including lot size and setbacks, for a true tiny home development.

Remove Uniform Subdivision Standards for Residential PUD Plans and residential Site Development Plans

Since no recent PUD plans have utilized the Uniform Standards for residential PUD plans, staff is recommending this section of the code be deleted entirely. The last subdivisions to utilize the uniform standards were Wildgrass and portions of the Anthem neighborhoods.

The purpose behind this section, which was added to the code in 1997 to create uniform standards for PUDs, directly conflicts with the purpose of having PUD zoning being customizable to encourage innovation in development with greater variety in type, design, and layout of buildings. Furthermore, the setbacks are complicated since the setback varies based on building height. It can be difficult for residents when adjacent lots have differing side yard setback allowances because the houses have a slightly different height.

When new PUD plans are submitted, instead of comparing the proposed development standards for residential development to the uniform standards, staff will provide a comparison to other Broomfield zoning as applicable (R-1, R-3, B-1, etc). Since no recent PUDs have utilized the uniform standards, this change is not anticipated to impact future PUD proposals, but it will remove a section of the code that no longer aligns with desired densities.

This has no impact on existing residential development within PUD districts. The PUD plans approved for existing development will not be impacted. Existing neighborhoods, such as Anthem, Baseline, Red Leaf, Westlake, Highlands, and Broadlands, have development standards incorporated into the individual PUD plan for each neighborhood and will remain in place as approved.

Public Engagement

If Council desires to proceed with the proposed zoning changes, a Broomfield Voice page will be created following this study session. This page will provide information regarding the proposed changes that will be presented to City Council as part of a future proposed ordinance. Broomfield Voice provides a venue for comments and concerns regarding the proposed amendments to Chapter 17 of the Broomfield Municipal Code, where community engagement is encouraged. Comments received will be gathered and summarized as part of the public hearing process. Staff intends to utilize the weekly community update and social media posts to encourage engagement with the Broomfield Voice page.

Additionally, staff is planning to host one virtual and one in-person open house prior to the first reading of the ordinance to introduce the proposed changes to residents and HOAs. One virtual open house will be held specifically targeted to developers, architects, and designers active in Broomfield. These meetings would be an opportunity to answer any questions and receive input on the proposed regulations.

There will be an opportunity at the public hearing for the second reading of the proposed ordinance for additional public comments to be provided for City Council's consideration.

Request for Direction

Staff is seeking Council's direction regarding the potential updates for house size and lot size for low density residential zones.

Question for City Council to Consider when Providing Feedback:

- Would Council like staff to begin community engagement and bring back an ordinance for consideration regarding reducing the minimum lot size in the R-1 district?
 - If yes, is there support for a 5,000 square foot minimum lot size?
 - If yes, is there support for the reduced setbacks proposed in this study session?
- Would Council like staff to bring back an ordinance that would remove the uniform subdivision standards from the PUD section of the municipal code?
- Would Council like staff to begin community engagement and bring back an ordinance for consideration regarding reducing the minimum single family home size from 950 square feet to 800 square feet?



City of Broomfield

City Council Study Session

Timing of Potential Charter Change Ballot Questions

Continued discussion on the proposed changes to the Charter and what questions should be presented to the voters on the November 2024 ballot.

Meeting	Agenda Group
Tuesday, May 21, 2024, 6:00 PM	Study Session Item: 2E
Presented By	
Nancy Rodgers, City and County Attorney	
Community Goals	

Overview

[View Correspondence](#)

Council held two Study Sessions for the purpose of reviewing and discussing the Charter Review Committee's recommendations for changes to Broomfield's Charter, as well as other possible changes suggested by Council members. The next step is to determine what proposed changes should be included in the November 2024 ballot and what proposed changes will be deferred to later years.

Attachments

[Final Memo for Council's 5-21-24 Discussion on Timing - Potential Ballot Questions .pdf](#)

Summary

[View Correspondence](#)

On [April 16, 2024](#) and [May 7, 2024](#), Council held two Study Sessions for the purpose of reviewing and discussing the Charter Review Committee's recommendations for changes to Broomfield's Charter, as well as other possible changes suggested by Council members. At the combined meetings, there was consensus from Council on moving forward with many of the proposed changes to the Charter. A full list of those changes is below.

The next step in this process is to have Council consider the priority for the possible Charter changes/ballot questions and determine what questions will be presented to the voters in the November 2024 election and what questions can be deferred to future elections. To assist in the discussion, [a chart has been drafted with each potential Charter change.](#)

Each ballot question intended for the November 2024 election will be presented to Council in an ordinance for a formal vote. Each ordinance will be subject to a first reading and second reading, with a public hearing. For the November 2024 ballot, any ballot question must be approved no later than the August 13, 2024 Council meeting.

This study session, as with the previous one, is for discussion on timing for the ballot questions and direction only. Formal decisions on proposed ballot questions to change the Charter will take place in public meetings and the voters have the ultimate decision.

Background on Broomfield's Charter and the CRC, Ballot Question Process, and Proposed Changes

The background on Broomfield's Charter, the Charter Review Committee, the process for approving a ballot question, the CRC's recommendations, and Councilmembers' proposed changes to the Charter can be found in the staff memo for the [April 16, 2024](#) Study Session.

Financial Considerations

Each possible Charter change may have its own financial considerations, which will be addressed if/when that specific change is presented to Council as an ordinance approving the ballot question.

Prior Council or Other Entity Actions

[September 27, 2022 Resolution No. 2022-106](#): Council establishes the Charter Review Committee.

[March 7, 2023](#): Council appointed the CRC members.

[November 14, 2023](#): Council heard the final report and recommendation of the CRC.

[April 16, 2024](#): First Study Session to discuss the CRC's recommendation and other possible Charter changes.

[May 7, 2024](#): Second Study Session to discuss the CRC’s recommendation and other possible Charter changes.

Boards and Commissions Prior Actions and Recommendations

On November 14, 2023, the Charter Review Committee presented its [Final Report](#) with a [PowerPoint](#) to City Council, and noted a [red line of the CRC’s recommended changes](#).

Proposed Actions / Recommendations

If Council desires to proceed with presenting a Charter change to the voters, Council should direct staff to prepare an ordinance(s) with the ballot question(s) for Council’s formal consideration at a meetings in Summer 2024.

Alternatives

Do not direct staff to prepare any proposed ballot questions and do not proceed with any changes to the Charter at this time.

Full List of Broomfield Proposed Changes from CRC or Councilmembers and Direction Provided at the April 14, 2024 and May 7, 2024 Study Sessions

Council’s direction on a specific provision/subpart is listed in **bold underlined** next to the item. Items marked with a star (*) indicate a proposal by a councilmember. All other changes are CRC recommendations. “**Move forward**” means that Council’s direction was to support the concept, and have staff prepare a proposed ordinance with ballot language. Timing and priority for each ballot question will be determined by Council.

Overall changes

Change “City” to “City and County” throughout; municipal to “City and County” or “Broomfield” when appropriate - **move forward**

Change “City Council” to “Council” throughout - **move forward**

Remove outdated language or transitional language from 1974 - **move forward**

Prefatory Synopsis

Clean up; substantive changes to match other changes to Charter provisions, if applicable - **move forward; however, specific language unknown until other changes are finalized**

Added a paragraph about Charter being the definitive governing document, but other key documents such as the strategic plan and comprehensive plan are critical to operational success and should be reviewed and updated (similar provision in 4.9(c)) - **move forward**

Preamble - Clean up to remove the 1974 Commission list - **move forward**

Could be combined with transitional language removal or the prefatory synopsis clean-up)

Chapter I - Name Boundaries - no change

Chapter II - City and County Powers (formally “Municipal Powers”) -

2.1 Add reference to the Broomfield Constitutional Amendment

2.3 (New Section) Application of the Charter:

“All ordinances, resolutions, rules, regulations, policies, procedures, or similar actions by the City and County shall be consistent with the requirements of this Charter, and in the event of a conflict between the Charter and any provision of the foregoing, this Charter will control.”

Chapter III - Elections

3.1 - Law Governing Elections

Made clear that Broomfield’s elections follow Title I, so there isn’t confusion between application of Title 31 and Title I of the Colorado Revised Statutes - move forward

Change “municipal” election to “coordinated” election throughout - move forward

*Setting the voting age for Broomfield elections to 16 years old - - no change to be proposed at this time

3.5 - *Recall

“3.5(a) Any elected official of the City and County may be recalled pursuant the procedures set forth in this Charter, then as Council may prescribe by ordinance if not in conflict with Charter, and then as set forth in Article 12 of Title I of the Colorado Revised Statutes if not in conflict with Charter or the Code.” - move forward

Chapter IV: Mayor and Council

4.1 - City Council and Mayor - No change

4.2 - Wards

*Change in number of wards to 3; each with 2 councilmembers - no change to be made

Changes to the ward boundary map only occur following the census or when there is a significant disparity in population between the most populous and least populous ward - move forward

Manager prepares the ward map and City Council is limited to approval or rejection; they cannot modify the staff’s recommended map - move forward

4.3 - Terms of Office

Four year term for mayor - move forward

Added term limits for elected officials - 3 consecutive terms (Note: term limits are not currently in Charter; Broomfield follows state law: 2 terms for 4-year elected terms and 3 terms for 2-year elected terms) - move forward, but potentially not in 2024

4.4 - Mayor Power and Duties

Added that the mayor, with the assistance of the manager, sets the agenda - move forward

4.6 - Qualifications [of Elected Officials]

Added a provision that changes in ward boundaries won't operate to exclude a sitting councilmember - move forward

Added a specific prohibition that an elected official cannot hold another public elected office - move forward

4.7 - Vacancies

Added that an elected official's absence from 50% or more Council meetings will be deemed to be a "vacant" seat - move forward, but not a priority for 2024

Clarified that a councilmember vacancy will be filled by appointment, but only until the next eligible coordinated election when a person will be elected to serve the remainder of the original term (if any) - move forward

*Clarified that a mayoral vacancy is filled by the Mayor Pro Tem, but only until the next eligible general or coordinated election when a person will be elected to serve the remainder of the original term (if any) - move forward

4.8 - Compensation

No change.

4.9 - Powers and Duties of Council

Added that Council shall adopt job descriptions, job duties, and general assignments for the mayor and councilmembers - move forward

Added that Charter is the definitive governing document, but other key documents such as the strategic plan and comprehensive plan were critical to operational success and City Council should review and update these documents as needed (similar provision in prefatory synopsis) - move forward

*Council permitted to hire a Chief of Staff to serve at the pleasure of Council - no change to be proposed at this time

4.11 - Ethics Code

Added that Council must adopt an ethics code (there is a current ethics code in the Broomfield Municipal Code but no requirement to do so in Charter) - move forward

- 5.1 - Permits a study session to be one of the required two meetings a month - [move forward](#)
- 5.2 - For a special meeting, notice is provided to each member of Council either served electronically or personally left at each member's residence or business. Remove personal service? - [no change at this time; if this change can be combined with another 'clean-up' provision, move forward.](#)
- 5.5 - Removed requirement to take a roll call vote but retained requirement that a yes or no vote be entered into the records unless the vote was unanimous. (New AgendaLink system displays each councilmember's vote on a screen) - [move forward](#)
- 5.5 - Add "personal" on the prohibition of voting where a member of Council has an "interest" - consistent with existing 6.3 - [move forward](#)
- 5.7 - New subsection. Separated Section 5.6 to create a new 5.7 on Study Sessions and Executive Sessions (Language below was the old language) - [move forward](#)

Chapter VI - Legislation

- 6.4 - Added that land use rezones for a specific property (not a multiple property development) to be approved by resolution, not ordinance - [move forward](#)
- 6.6 - Added a required "third reading" to ordinances that have substantive amendments on second reading - [move forward](#)
- 6.8 - Changed the effective date for emergency ordinances - they will go into effect immediately (not eight days from passage) - [move forward](#)
- 6.9 - Modified the publication requirement of ordinances so that ordinances are required to be published on the City and County website rather than a newspaper; ordinances can be published in a newspaper upon Council's direction - [move forward](#)

Chapter VII - Initiative and Referendum

- 7.1 - Modified the deadlines on initiative and referendum to match state statute - [move forward](#)

Chapter VIII - City and County (formally "Municipal") Administration

- 8.1 - Clarified that Council sets the Manager's salary and compensation - [move forward](#)
- 8.3 - Removed language that allowed City Council to consolidate or merge departments, and language that required the manager to seek Council approval before dividing departments. This change is consistent with the manager's authority over the various departments - [move forward](#)
- 8.6 - City Clerk - clarifying application governing laws and county rules - [move forward](#)
- 8.8 - Removed Section 8.8 on Administrative Departments because the tasks and responsibilities are covered in the managers' duties in Section 8.3 - [move forward](#)
- 8.9 - Added a new requirement that the manager, with Council approval, shall appoint and could

remove an Internal Auditor (the Internal Audit department is in Code, but not Charter) - [move forward](#)

Chapter IX - Personnel

9.1 - Personnel Merit System

A Personnel Merit System (PMS) remains required by the Charter - no change

Clarified who is included/excluded in the PMS: includes all Broomfield employees except department heads ((new) including the Police Chief), (new) the deputy/assistant city and county managers, elected officers, Council appointees, (new) temporary employees, boards and commission members, and special inquiry contractors - [move forward](#)

Clarified that language to require the Personnel Merit System provide non-probationary employees a right to administratively appeal any disciplinary action - [move forward](#)

The Personnel Merit Commission was removed from Charter (note: The Commission still remains in Code and is an active Commission. City Council could, if it desired, change the ordinance to modify the structure and obligations of the PMC) - [move forward](#)

Chapter X - Legal and Judiciary

10.1 - City and County Attorney

Broadened the language to recognize that the City and County Attorney employs staff in addition to attorneys - [move forward](#)

Specified that special counsel works under the direction of the City and County Attorney, who serves at the pleasure of Council - [move forward](#)

10.2 - Municipal Court

The Presiding Judge shall be the “department head” for the Court and will hire and supervise associate judges and such staff as needed by the Court - [move forward](#)

Modified the requirements for removal of a judge to reference the Colorado Code of Judicial Conduct - [move forward](#)

Chapter XI - Boards and Commissions

11.2 - Right to Establish, Amend and Abolish

Removed language that a board member could be removed “for just cause” and retained language that the member could be removed at the pleasure of Council - [move forward](#)

Current council members and employees cannot serve on any temporary boards or commissions, in addition to the existing prohibition for permanent boards or commissions - [move forward](#)

Specifically allowing Council to permit an individual to serve on more than one CCOB board or commission - [move forward](#)

Chapter XII - Finance and Budget

- 12.2- Added a requirement that the manager collaborate with Council on the recommendation budget for the next fiscal year - [move forward](#)
- 12.4 - Added a requirement that the proposed operational capital expenditures in the budget be summarized in addition to detailed for each office - [move forward](#)
- 12.6 - Removed requirements that publicly available documents be located at the “municipal building” (Note: documents will be available publicly at the City and County main building, on the website, and per a public records request) - [move forward](#)

Chapter XIII - Taxation

- 13.1 and Prefatory synopsis - remove references to income tax because local governments are prohibits under Colorado law from imposing an income tax. - [move forward](#)

Chapter XIV - Municipal and County Funding - Language updates; No substantive changes - [n/a](#)

Chapter XV - Improvement Districts - Language updates; No substantive changes - [n/a](#)

Chapter XVI - Intergovernmental Relations

16.2 - Cooperative Intergovernmental Relations

Allows intergovernmental contracts to be approved by a majority, not 2/3rd vote, permits Council to delegate, and requires IGAs to be published on the Broomfield website - [move forward](#)

Chapter XVII - Utilities and Franchise - Language updates; No substantive changes - [n/a](#)

Chapter XVIII - General Provisions (Eminent Domain, Open Space, Charter Amendments, etc.)

- 18.7 - With the removal of gender pronouns and other descriptors, it is necessary to keep in “the masculine gender shall extend to and include the feminine gender and neuter”? - [move forward](#)
- 18.10 - *New subsection. Add a provision to require Council establish a Charter Review Committee at least every 10 years - [move forward](#)

Chapter XIX - Transitional Provisions

Deletion of this entire provision, which contain sections needed for the transition from statutory town to home rule municipality - [move forward](#)

Chapter XX - Prohibition on Hydraulic Fracturing

No change

Further Suggestions

The Committee recommends City Council consider adding a policy statement in the Charter supporting affordable housing and a policy statement supporting diversity, equity and inclusion - no change at this time.