

**CITY OF BOULDER  
PLANNING BOARD**

**MEETING DATE: Dec. 15, 2016**

**AGENDA TITLE:**

**Boulder Valley Comprehensive Plan (BVCP) – Narrowing Options for Land Use Scenarios, Housing Policies, and Community Benefit and Update on Analysis and Engagement for CU South**

**REQUESTING STAFF:**

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## **PURPOSE**

The purpose of this memo is to provide information to Planning Board in advance of the board's continued discussion about the Boulder Valley Comprehensive Plan (BVCP) and get board feedback related to key policy areas on Dec. 15, 2016. Topics to be addressed include:

- 1 **Narrowing key policy choices** in preparation for developing the draft plan in early 2017, including: land use scenarios and analysis and future land use mix and character for commercial centers and light industrial areas; small business retention/protection; community benefit policy; and revisions to the housing policies.  
*Does Planning Board have feedback for staff to consider while preparing drafts and analysis? (Note: Specific questions are posed later in the memo by topic.)*
- 2 **Proposed policy revisions** to Sec. 3, Natural Environment policies; Sec. 9, Agriculture and Food policies; and Sec. 8 Trails policy and map.  
*Does Planning Board have feedback before these draft sections are incorporated into the draft plan?*

Staff will also provide an update on CU South engagement and previous South Boulder Creek flood analysis. Discussion regarding an initial land use suitability will occur during the Jan. 19, 2017 meeting, and CU staff will be available to present information and answer questions for Planning Board and City Council in January.

The Dec. 15 Planning Board discussion of these topics will help staff continue to refine materials and analysis prior to the board's Jan. 24 Study Session with City Council.

## **Plan Process and Schedule**

An updated project schedule is provided in **Attachment A**. The third phase of the plan has focused on preparing alternative scenarios, analysis and updating policies, including multiple community engagement activities as noted below and a second survey. The next major milestone is a joint study session of Planning Board and City Council on Jan. 24, 2017 at which the two bodies will begin to discuss recommendations for key policy choices and initial

proposals for changes to address the focus areas of the plan, such as housing. After that staff will begin preparing a draft plan for review with the board and public in March and will revise that draft for the approval hearings to begin in May.

The webpage has been revamped and contains up-to-date information about the project schedule and materials: [www.bouldervalleycompplan.net](http://www.bouldervalleycompplan.net).

## Planning Board Input and Community Engagement

### Planning Board Input

Planning Board has discussed the BVCP and provided feedback on key policies at several previous meetings:

- **Nov. 17 2016.** The board briefly discussed community benefit subcommittee work.
- **Oct. 20, 2016.** The board discussed the updated schedule (and need to stretch it to allow for community engagement). Staff also provided a brief overview of the CU South project process and identified topics for the December discussion.
- **Sept. 15, 2016.** The board discussed and provided written feedback around multiple topics including growth management options, local and affordable business, neighborhood planning, and community benefit. A link to the Sept. 15 memo is located [here](#).
- **Aug. 29, 2016.** The joint board meeting and public open house addressed initial scenarios, housing prototypes, and other key policies. A link to the summary from the event is [here](#).
- **Aug. 25, 2016.** Planning Board had discussion of initial scenarios, housing prototypes and preparation for the public open house and joint board discussion. A link can be found [here](#).
- **July 28, 2016.** Planning Board discussed and gave feedback regarding the policy integration (i.e., Sections 3, 4, 5, 6, 8, and 9 and core values). Link [here](#).

### Community Engagement – Fall 2016

The community has provided input and feedback throughout the fall on the plan and different tracks of it. Engagement through November summarized below.

- **Organization Input** - Staff reached out to civic, business, and neighborhood organizations to get input about scenarios and policy choices, and met with 11 groups and approximately 260 people. The summary of all the input [is here](#).
- **Random Sample Survey (Nov. – Dec.)** The random sample survey sent to 6,000 households will have closed before the Dec. 15 Planning Board meeting; however, the open online (non-statistical) survey will be available to the public through Dec. 18. The link to the online survey is [here](#).
- **Future Forums** – Following a similar format from the listening sessions, the city and county hosted meetings in the community to share land use scenarios and policy choices and facilitate discussions to gather feedback around more local issues. While the participation was lower than fall 2015, input and ideas have been useful. Staff will summarize the input from the three events and make that available and online before the January study session.
- **Joint Boards Workshop (and Public Meeting)** – On Aug. 29, a public open house and joint meeting of the boards and commission was held. The summary is [here](#).
- **Pop Ups** – “Pop up” meetings and discussions at the library and other city facilities are occurring in the month of December to ask people about key topics for potential policy changes around built environment and housing.

## Analysis of Land Use Scenarios and Key Policy Choices

### Land Use Scenarios and Analysis

Since Planning Board's discussions in August and September regarding scenarios and land uses, the planning team has updated the descriptions of "Possible Locations for Future Jobs and Housing," "Land Use Scenarios" and "Preliminary Housing Concepts." These materials have been shared with organizations and at public meetings for discussion about Boulder's vision for the kind of community it wants to be. Staff has also worked with consultants to prepare initial analysis of the land uses and housing types. These items can be found in **Attachment B**.

The scenarios A through D explore a future idealized mix of land uses (housing and nonresidential) to address different community objectives around long standing growth management and sustainability goals as well as some of the newer housing affordability goals, and the pace and amount of nonresidential growth (Scenario D). They have been the backdrop for community discussions about the ideal land use mix and jobs and housing balance.

Initial analysis and research indicates that changes to land uses allowing more housing along corridors and in walkable transit-oriented centers can aid in sustainability goals and community values and priorities (e.g., multi-modal transportation, emissions reduction, walkable places, great neighborhoods) while allowing for commercial centers to be better designed and more walkable places. Additionally, enriching the mix of housing and other amenities and services in jobs-rich industrial areas (e.g., Flatiron business park or some parts of Gunbarrel industrial areas) could be positive for creating new neighborhoods, and have the most likelihood of being achievable because such lands currently have low intensity and could allow for infill or redevelopment.

Land use changes in any commercial or industrial areas could have implications for small businesses and affordability, and staff is proposing small business policies as suggested by Planning Board and community members, noted in sections below. It is also evident from Keyser Marsten's consideration of housing types and housing affordability that other tools to address permanent affordability will be necessary to supplement land use changes that support additional housing.

Additionally, staff continues to analyze the land use mix that may be achievable within certain land use categories (e.g., Commercial Business centers, and within the Light industrial category) based on available lands and potential for redevelopment or infill and is finding that the upper range of housing numbers (i.e., up to 6,160 new units in addition to the current projections or even more in the hybrid approach) may be difficult to achieve given Boulder's fairly built out condition in many commercial areas, mixed community reaction about intensification in certain areas especially near single family neighborhoods, and the market realities of redevelopment and infill. Using CityEngine and other modeling and GIS tools, staff is studying the intensities and mix in different areas in preparation for land use changes to accomplish different objectives.

**Attachment B** includes the initial analysis for the scenarios including high level housing affordability, transportation, jobs:housing balance, and utility analysis indicating the tradeoffs for changing land use to support housing, with some advantages to an approach that allows for housing in centers and along corridors while also reducing future nonresidential potential.

**Question:** *Does Planning Board have feedback on the land use scenarios, jobs/housing balance, and/or analysis to be provided for the joint study session?*

## Updating Land Use Descriptions

In September after an initial draft of the land use descriptions chapter, board members suggested ideas to update descriptions. Staff will continue to make changes to the section through early January to:

- Include the new “map interpretation” language included in the previous draft on page 1, noting that the chapter and land use plan should accommodate future transitions toward form based approaches to regulating land use and development,
- Further describe land use ideas that emerge from the scenarios, centers and industrial area character and land use discussions,
- Note resilience as important,
- Acknowledge direction toward a greater mix of uses and to encourage street activation and mixes of uses in commercial areas, and
- Continue editorial changes to descriptions of uses and add a collage of photos for each category.

### *Open Space-Other category interpretation*

Planning Board suggested adding guidance to interpret the Open Space-Other category on the map within Area I and II where the designation on the map doesn't align cleanly with linear resource features such as streams and ditches. The new language could be as follows:

*Where the OS-O category appears on the land use map in Area I or II as linear open space near or along a water feature or ditch but does not align with the feature, the center of the OS-O designation should be interpreted to align to the center of the feature with the average width of the OS-O distributed equally on either side of the feature. Such interpretation does not apply to OS-O mapped areas that are not oriented to linear resources. Those areas will need to be interpreted on a case-by-case basis.*

**Question:** *Does Planning Board have feedback regarding the land use descriptions, including new or revised categories and the Open Space-Other interpretation language?*

## Activity Centers and Industrial/Innovation Areas – Mix of Uses and Character

The packets describing the Boulder Valley Regional Center (BVRC), Neighborhood Centers, and the Light Industrial/Innovation area (**Attachment C**) depict existing conditions and policies for each type of place, draft principles for place making, and visualizations for transforming the mix of land uses and other urban design and character issues. The packets have been used at the community forums to aid in discussion about vision and policies and posing questions about issues such as intensity and building height. Staff seeks feedback from the board to refine the principles and visualizations that could ultimately be added to the Built Environment section of the plan to provide guidance on how these places should evolve.

**Question:** *Does Planning Board have feedback to refine the principles and the land use mix, character and design for: (a) the BVRC, (b) neighborhood centers, and the (c) light industrial/innovation areas?*

## Other Key Policy Topics

### *Discussion of Economic Policy – Small Business*

Planning Board provided early feedback on the Economy section in summer 2016 and noted several themes including the need to deemphasize the focus on job growth; address impacts of job growth on the city and county; present a balance perspective on redevelopment and

retention of existing businesses; protect small businesses; and clarify the importance of the retail base. Staff incorporated the early feedback in the August 24 draft.

This fall, comments and input from the community reinforced the idea of strengthening protection of small local businesses and addressing affordable space for retail and industrial uses. At the September 15, 2016 Planning Board meeting, Hollie Rogin shared the results of her survey of 20 businesses in Boulder, noting that the majority of these were concerned about rising rents and redevelopment. Most of the businesses shared with Ms. Rogin that if they lost their leases, they would either close entirely or move outside of Boulder. Ms. Rogin also shared a [report](#) from the Institute for Local Self- Reliance (ISLR), which presents potential policy options regarding affordable space for independent businesses that are being implemented by other cities.

Furthermore, various organizations have offered specific input this topic as follows including interest to:

- add housing, retail vibrancy, height and density in East Boulder; turn commercial land into residential uses; provide flexibility to allow housing in industrial areas;
- maintain manufacturing space while adding housing or retail in East Boulder;
- be cautious about adding housing in industrial areas because of potential impacts;
- be protective of small independent businesses;
- address affordable business space and rent increases;
- support both the innovation economy and small businesses;
- protect existing business and remaining industrial uses, including small and service industrial;
- determine appropriate places to limit new office uses and consider limiting Class A office space, banks, and tech firms; and
- Address cultural land-marking of businesses.

Staff will incorporate the additional feedback and input received this fall into policies for January.

**Questions:** *Does Planning Board have feedback on suggestions from the community and ISLR report, including:*

*(a) How to preserve affordable retail commercial and light industrial space and protect small, local, independent businesses?*

*(b) How to balance priorities of providing affordable housing and protecting businesses?*

### **Community Benefit Policy**

The Planning Board has formed a subcommittee to address the topic of community benefit and how it relates to inclusionary housing requirements. In this case, “community benefit” is defined broadly as a developer-provided item or “benefit” to community above and beyond what the city requires as a condition for a bonus such as additional intensity or height from which the developer could benefit. Such approaches are typically triggered when the developer requests the change and are administered through the Land Use Code or regulations. Based on discussions of the subcommittee to date, the draft policy language for the BVCP can help guide the further work to be done to amend the Land Use Code to achieve additional benefits from development that reflect community values is noted below. **Attachment D** contains the draft matrix from the subcommittee. Keyser Marsten is performing economic analysis relative to community benefits.

Draft language that may appear in Sec. 1 of the BVCP is proposed as follows:

**Policy 1.18 Growth Requirements and Community Benefits**

*(Add to policy 1.18)* The city will develop regulations for incentives for development that further community objectives. The incentives may be granted to developments that create benefit to the community beyond those established by the underlying zoning. The city will determine the thresholds and locations for applying such incentives. The city will develop regulations that will reward, create advantages, or improve community economic, social, and environmental objectives including without limitation to address benefits including but not limited to priorities of affordable housing and affordable commercial space, and other desired benefits including but not limited to arts and culture, dedication of lands for parks, environmental protection or restoration or public spaces, and meeting social needs. *(Note: list to be further defined by the board.)*

*Question: Does Planning Board have feedback on this draft community benefit policy?*

**Revised Housing Chapter**

**Attachment E** contains a revised draft of Sec. 7, Housing chapter. Addressing the future of affordable and diverse housing has been a major theme of this BVCP update, and Housing Boulder and the Middle Income Housing strategy work have also helped inform the emerging policies. Planning Board reviewed an initial draft of the chapter in August at which time the chapter contained a number of questions. Staff has narrowed the key questions for the chapter and is seeking feedback from the board.

In particular, Planning Board suggested new language to incentivize or ensure that when additional intensity is provided through changes in zoning, a higher level of permanent affordable housing and middle income housing will be required. Some council members suggested taking a slightly broader approach and considering this requirement in the context of community benefit, as noted above.

*Question(s): Does Planning Board have feedback on the draft housing policies and key choices in the attachment?*

**Policy Integration – Secs. 3 and 9 and Trails Map and Policy**

At its previous meetings, the board reviewed and provided feedback drafts of some policy chapters noted below. Using that feedback and input from other boards, staff prepared a public review draft for Aug. 24 took additional public feedback and other board and commission feedback through November to align these chapters with master plans and other updated information: Core Values; Natural Environment (Sec. 3); Energy and Climate (Sec. 4); Economy (Sec. 5); Transportation (Sec. 6); Community Well-Being (Sec. 8); and Agriculture and Food (Sec. 9).

Based on the feedback staff has revised Sec. 3 and Sec. 9 and the trails policy in Sec. 8. Those sections are part of this packet and also went to Open Space Board of Trustees (OSBT) for Dec. 14 discussion.

*Question: Does Planning Board think these sections (Sec. 3 and Sec. 9 and trails policy and map) are largely ready to advance as part of the draft plan?*

### **Sec. 3 Natural Environment**

This section focuses on policies related to the natural environment including incorporation of ecological systems into planning, adaptive management approach, protection of natural lands, management of wildlife, water conservation, flood management, and air quality. The changes to this chapter reflect updated plans and work since the 2010 Plan and strengthening policies related to existing plans and numerous other updates to clarify and strengthen policies related to these topics. **Attachment F-1** summarizes the changes to this section. **Attachment F-2** includes the edited section. The section has had quite a few changes since the August draft that reflect County staff, Parks and Open Space board, Planning Commission and input from groups of community members with particular open space, environment, and soil health knowledge. Additional input and review from city OSMP staff and from other departments are also included and all documented in the attachment.

The section now includes a more extensive and descriptive preamble to call out features of the natural environment including the differences between policies as attributed to publicly owned versus private lands and lands in the urban context versus those that are part of the city and county open space surrounding the city. It also includes new language and policies related to climate change and resilience. In general, the policies maintain or increase levels of protection and clarity about this section's relationship to other master plans and the city and county's respective roles in environmental protection. Some further editing will be necessary to reduce redundancies and wordiness.

### **Sec. 9 Agriculture and Food**

This section focuses on agriculture, food, sustainable practices, and access to food for the community. The city and county have made significant contributions to the preservation of lands for agricultural production and the water needed to use these areas for agriculture such that most agricultural production in the Boulder Valley now occurs on city and county open space. **Attachment G-1** summarizes the changes to Section 9. **Attachment G-2** shows the edited section. The changes to this chapter reflect updated plans and work since the 2010 Plan as well as a new proposed policy regarding soil health and soil sequestration that has been updated and modified based on recent input from community members and OSMP staff.

### **Trails Map and Description**

The BVCP Trails Map is a comprehensive guide for existing and proposed trails and trail connections for the entire Boulder Valley. It shows proposed trails, including grade separated trail underpasses that have been planned through departmental master planning, or area planning processes, as well as trail connections that are important links in the Boulder Valley and regional trails systems.

The Planning Board reviewed draft changes to the Trails Map on Sept. 15, 2016. The draft map includes minor revisions since the Sept. 15, 2016 version based on feedback from the community and advisory boards. The draft map has been reviewed by the Open Space Board of Trustees, Parks and Recreation Advisory Board, Transportation Advisory Board, Greenways Advisory Board, Boulder County Parks and Open Space Board and the Boulder County Planning Commission.

A summary of *all* proposed changes to the BVCP Trails Map are described in **Attachment H-1** and shown on the draft map in **Attachment H-2**. A revised the Trails Map description from the Implementation Section of the BVCP is included in **Attachment H-3**.

### **Trail-related Policies**

Staff received various suggested revisions and feedback on trails policies from members of the public and county staff. Proposed changes to trails policies can be found in **Attachment H-4**

and a list of feedback with analysis and recommendations is documented in [Attachment](#)

**H-5.** Proposed changes to trails policies include:

- Policy 8.12 Trail Functions and Location
  - Include intro sentence reflecting positive functions of connectivity
  - Design to include enjoyable visitor experience
  - Encourage trail designs that promote on-trail travel
  - Design for long-term sustainability
  - Look for opportunities to enhance habitat connectivity
- Policy 8.13 Trails Network
  - Support for trails system connectivity and identify relationship with regional trails systems beyond the BVCP area.

## CU South

Initial site suitability maps and study are updated and available for review on the project webpage at [bouldercolorado.gov/bvcp/cu-south](http://bouldercolorado.gov/bvcp/cu-south). On Dec. 15, staff will provide background technical analysis relating to the South Boulder Creek Flood Mitigation work done through 2015, as requested by board members. In January Planning Board will discuss land use suitability and issues to address in an agreement between the City and CU.

On Dec. 5 a second public workshop regarding the CU land Use change occurred. About 125 community members attended and participated in small group discussions and provided individual comments and suggestions. Input included themes such as:

1. **Flood Mitigation.** Flood mitigation appears to be a top priority for many residents, particularly those impacted by the 2013 flood event. Many attendees stated preference for an expedited process for the construction of flood mitigation measures.
2. **Timing.** Some people are concerned about changing land use designations or approving annexation prior to CU's having completed a master plan for the site because of unknown development impacts.
3. **Recreation.** Recreational users enjoy CU South in its current state. Activities like hiking and cross country skiing are very popular. Users also enjoy allowing dogs to roam off leash and lack of enforcement.
4. **Open Space.** Conservation of open space is a common preference.
5. **Wildlife.** Several comments emphasized the need to closely examine the potential impacts of development to wildlife.

## NEXT STEPS

- Jan. 19, 2017 Planning Board review of remaining policy sections, preparation for joint study session, and initial discussion of CU South land use designation and possible agreement terms
- Jan. 24, 2017 Joint Study Session of the City Council and Planning Board – Survey #2 results, land use scenarios and key policy choices
- March, 2017 Staff prepares initial draft plan
- Mar. 16, 2017 Planning Board review of initial draft plan and analysis

## Attachments

- A. Current BVCP Schedule(s)
- B. Land Use Scenarios and initial analysis
- C. Centers and Industrial/Innovation areas and principles
- D. Community Benefits matrix (Planning Board committee work)
- E. Sec. 7, Housing edits
- F. Sec. 3, Revised Natural Environment policies (**Attachments F-1 and F-2**)
- G. Sec. 9, Revised Agriculture and Food policies (**Attachments G-1 and G-2**)
- H. Trail map and memo and revised trail policy in Sec. 8 (**Attachments H1 through H-5**)

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**BOULDER VALLEY COMPREHENSIVE PLAN**

## Schedule of Milestones for Phases 3 and 4

Updated – Dec. 9, 2016

*This schedule has been updated based on feedback from the public and board members. It carries through spring 2017. Check [www.BoulderValleyCompPlan.net](http://www.BoulderValleyCompPlan.net) webpage for current information on times and locations. These dates may be subject to change.*

### Upcoming City Council and Planning Board Meetings

This list outlines the City Council and Planning Board meetings. More detail about the tasks is provided on the following pages.

#### 2016

- **Dec. 13**      **City Council Agenda Item** (public hearing closed on Nov. 10)  
Decision on the 4-body land use request for 3<sup>rd</sup> Street (after Planning Board decision)
- **Dec. 15**      **Planning Board** continued discussion of policy chapters, land use, other key policies

#### 2017

- **Jan. 10**      **Joint Study Session of City Council and Planning Board** to discuss housing topics
- **Jan. 19**      **Planning Board** discussion of CU South land use change and preparation for joint Study Session
- **Jan. 24**      **Joint Study Session of City Council and Planning Board** to review scenarios, analysis, community engagement results from fall, survey results, and CU South
- **Mar. 16**      **(tentative) Planning Board** - open house and study session on initial draft plan
- **Apr. 11**      **Study Session of City Council** to review draft plan (tent. With Planning Board or Planning Board on April 20)
- **May 2**        **Begin Hearings for Draft Plan**

Events by Track are noted in the following sections.

### **Track 1: Public Land Use Requests**

Includes final analysis and recommendations for land use changes, some which require approval by all four bodies (city and county), and some of which require only city approval.

***Two-Body (City only) Approval - Completed*** (Naropa properties at 2130 Arapahoe Ave. and 6287 Arapahoe Ave. (#1), 385 Broadway (#3), 0, 693 and 695 S. Broadway, Table Mesa (#12), and 3485 Stanford Ct. (#13))

*This fall, previous events occurred on:*

- **Sept. 26, 2016**      Public Open House for four city properties and CU South
- **Oct. 13, 2016**      Joint Public Hearing of City Council and Planning Board (2 body) - Planning Board Decision
- **Nov. 1, 2016**      City Council decision (Planning Board reconsidered on Nov. 17)

**Four-Body (City and County) Approval – Note: Twin Lakes Hearings are delayed until early 2017 (3261 3<sup>rd</sup> St. (#25), 6650, 6655 Twin Lakes Rd. and 0 Kalua Rd. (#35 and 36))**

**Upcoming Dates:**

- **Dec. 13, 2016** City Council Decision on 3<sup>rd</sup> Street.
- Jan. 18, 2017 Planning Commission reconsideration of Sept. 19 Planning Commission Decision for Twin Lakes requests
- **TBD** (After Jan. 18) Reschedule Joint Hearing of the City Council and Planning Board for Twin Lakes requests

*This fall, previous events occurred on:*

- **Aug. 8, 2016** Public Open House, 5-7 p.m.
- **Aug. 30, 2016** Joint Public Hearing of Planning Commission and Board of County Commissioners
- **Sept. 21, 2016** Planning Commission (County PC) Decision
- **Sept. 27, 2016** Board of County Commissioners (BOCC) Decision
- **Nov. 10, 2016** City Council hearing on 3261 3<sup>rd</sup> Street (#25); Twin Lakes delayed

## Track 2: Policy Integration

**Includes:**

- ✓ Updates to Core Values
- ✓ Policy edits to Sections 3-Natural Environment, 4-Energy and Climate, 5-Economy, 6-Transportation, 8-Community Well-Being, and 9-Agriculture and Food to reflect master plans, including some new resilience strategies
- ✓ Amendment Procedures clarification and minor edits
- ✓ Urban Service Criteria minor edits
- ✓ Trails and Open Space map changes

**Upcoming Dates:**

- **Dec. 14, 2016** OSBT continued discussion and recommendation regarding Sections 3 and 9
- **Dec. 15, 2016** **Planning Board** review of policies in Sections 3 and 9 and OSBT recommendation
- **Dec. 21, 2016** **Planning Commission** continued review and input on policy sections 4, 5, 6, and 8
- **Jan 12, 2016** **Revised draft of other sections noted above**
- **Jan. 19, 2017** Planning Board review of revised core values, Sections 4, 5, 6, and 8
- **Jan. 24, 2017** **City Council and Planning Board Study Session – input on core values and sections noted above**
- **Feb. 15, 2017** Planning Commission direction and feedback on sections noted above

*This fall, previous events regarding policy integration occurred on:*

- **July 28, 2016** Planning Board discussion regarding core values; Sections 3, 4, 5, 6, 8, and 9; and Amendment Procedures
- **Aug. 8, 2016** Transportation Advisory Board (TAB) review and discussion of Section 6
- **Aug. 10, 2016** Open Space Board of Trustees (OSBT) review and discussion of Section 3
- **Aug. 11, 2016** Planning Board continued discussion regarding core values, Sections 3, 4, 5, 6, 8, 9
- **Aug. 29, 2016** Public Open House and online version of revised sections (comments due Oct. 28)
- **Aug. 29, 2016** Joint Boards and Commissions preview of revised sections and request for input on relevant sections
- **Sept. 14, 2016** OSBT review of trails map changes and discussion of Sections 3 and 9
- **Oct. 26, 2016** OSBT review of trails map
- **Nov. 16, 2016** County Planning Commission review and input on Sections 3, 8, and 9, including public hearing

### Track 3: CU South Land Use Change

Intended to complete Site Suitability Study for University of Colorado property on US 36, recommendations for a land use change, and recommendations for City/CU agreements for future use and services on property.

#### *Upcoming Dates:*

- **Dec. 15, 2015** **Planning Board** update on analysis, flood mitigation background information, public input from Dec. 5.
- **Early Jan.** **Staff and consultant analysis complete; initial discussions about land use suitability**
- **Jan. 11, 2016** **OSBT discussion about initial land use suitability related to open space land use**
- **Jan. 19, 2017** Planning Board discussion about initial land use suitability and topics for City/CU agreement(s)
- **Jan. 24, 2017** **Joint Study Session of Planning Board and City Council to review and discuss analysis, Initial discussion of land use and topics for City/CU agreement(s)**
- **Feb. 15, 2017** County Planning Commission discussion of CU South
- **Spring** **Tentative - City Council/Planning Board tour of CU South site**
- **Mar. 2017** Land use recommendation as part of draft plan

#### *Previous CU South discussion occurred on:*

- **Aug. 10, 2016** Open Space Board of Trustees (OSBT) discussion of process
- **Sept. 14, 2016** OSBT previews draft Site Suitability study and discusses process
- **Sept. 15, 2016** Planning Board lightly discusses process and gets preview of draft Site Suitability Study
- **Sept. 26, 2016** Public open house to review and give input on engagement process, initial analysis and draft Site Suitability analysis
- **Oct. 20, 2016** **Planning Board** general discussion about CU South analysis and engagement process
- **Dec. 5, 2016** Community event for CU South – present analysis and gather additional public input

### Track 4: Land Use Scenarios and Key Policy Changes for Focus Areas

To address:

- ✓ Land use scenarios and visualization for choices and preferences that may result in changes to Land Use Designation map and land use descriptions (e.g., industrial and mixed use designations)
- ✓ Analysis of jobs/housing mix and other impacts and benefits of scenarios
- ✓ Key policy options and analysis that may result in changes to Section 2, Built Environment and community benefit or job/housing balance policies, Section 7, Housing policies; and any additional climate or resilience policies, and subcommunity or area planning approach
- ✓ Policies related to Alpine-Balsam site and urban design framework
- ✓ Policies related to Blue Line change approved in Nov. election

#### *Dates:*

- **Dec. 15, 2016** **Planning Board** – continued discussion of land use scenarios and analysis, housing, and community benefit policies
- **Dec. 3-18** **Open on-line Survey #2**
- **Jan. 9, 2017** **TBD - Future Choices Forum – Gunbarrel Industrial Area**
- **Jan./Feb.** Other boards and commission input on policies and key choices
- **Jan.** **Survey #2 Report completed and distributed to City Council, Planning Board and County**
- **Jan. 10, 2017** **Joint City Council and Planning Board Study Session to discuss housing**

- **Jan. 24, 2017** **Joint City Council and Planning Board Study Session** to review scenarios, analysis, community engagement results and recommendations
- **Feb. 15, 2017** Planning Commission reviews outcomes of scenarios and analysis

*Previous discussion about land use and key choices occurred on:*

- **Aug. 25, 2016** Planning Board initial input and discussion on scenarios and housing prototypes
- **Aug. 29, 2016** Public open house and online information for draft scenarios and housing prototypes
- **Aug. 29, 2016** Joint Boards and Commissions input on draft scenarios and housing prototypes
- **Sept. 13, 2016** City Council briefing on topics noted above and draft survey topics
- **Sept. 15, 2016** Planning Board input on key policies and draft survey topics
- **Oct. 11, 2016** **City Council and Planning Board** – Electronic review of draft Survey #2 by Oct. 16
- **Oct. 20, 2016** **Planning Board** – continued discussion of key choices
- **Oct. 24, 2016** Survey #2 Ready for online and print by this date
- **Nov. 1, 2016** **Random Sample - BVCP Survey #2** (open through Dec. 10). Open on-line survey through Dec. 18
- **Nov. 16, 2016** **Future Choices Forum** – South and Southeast Boulder
- **Nov. 30, 2016** **Future Choices Forum** – Central Boulder
- **Dec. 7, 2016** **Future Choices Forum** – North Boulder

## Phase 4: Prepare Draft Plan

To synthesize all the work in the four tracks above into draft plan that will:

- ✓ Include policy directions following the second survey and community engagement in the fall
- ✓ Build from discussion at Study Session on Jan. 24
- ✓ Incorporate further analysis for preferred directions on key policies, revised land use plan
- ✓ Be more user-friendly, concise, and clear, including an updated introduction reflecting current issues
- ✓ Reference objectives and metrics and include an Action Plan

*Dates:*

- **Feb.** **Prepare draft plan**
- **Mar. 16, 2017** **(tentative) Planning Board** open house and study session initial draft plan
- **Mar. (TBD)** **Community open house re: Initial Draft Plan**
- **Mar. (TBD)** **Revise Draft Plan**
- **April 11** **Joint Study Session – Planning Board and City Council**
- **April 19** **Review draft plan with Planning Commission – direction and feedback**
- **May (TBD)** **Begin Draft Plan hearings at city**
- **May 17** **Planning Commission Draft Plan hearing**

## IGA

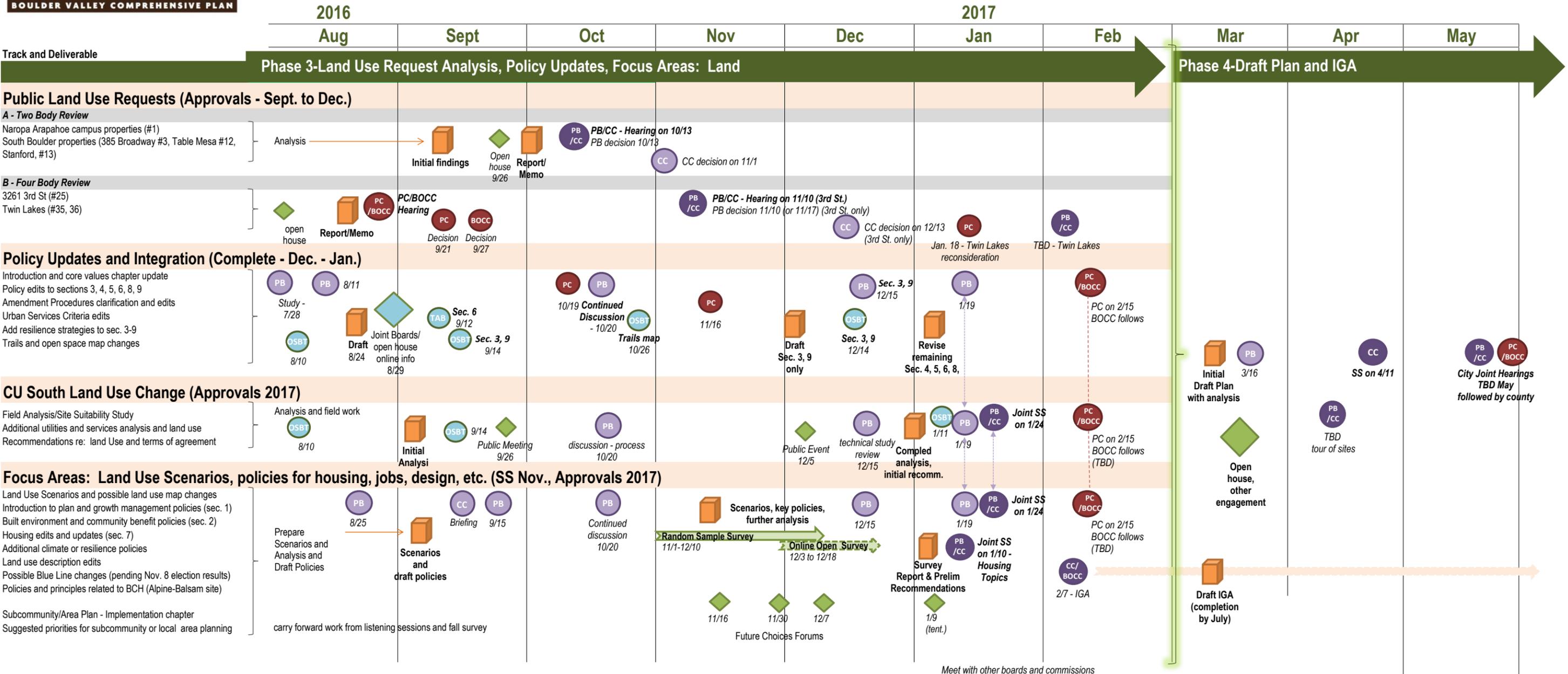
*Begin discussions between city and county – Feb. 2017 - **Dates to be scheduled***

*Dates:*

- **Feb. 5, 2017** **Begin Discussion – Joint City Council and Board of Commissioners**

**Schedule for Phases 3 and 4 and Approval Process**

UPDATED Dec. 7, 2016



# POSSIBLE LOCATIONS FOR FUTURE JOBS AND HOUSING

Most future jobs and housing may occur in four types of places:

- Major Corridors
- Regional Activity Centers
- Neighborhood Activity Centers
- Industrial/Innovation Areas

The generalized location and distinct characteristics of each of these types of places are defined below.

## INDUSTRIAL/INNOVATION AREAS

- Located in East Boulder, along Arapahoe between 33rd and South Boulder Creek, and in Gunbarrel along the Diagonal
- Classified as Light Industrial on the Land Use Designation Map and has Industrial General (IG) Zoning designed for "research and development, light manufacturing, larger scale printing and publishing, electronics, or other intensive employment uses" and "industrial parks" according to the 2010 plan
- Accessible by vehicles but are not particularly accessible by transit
- Strong regional connection to the city's greenway system, particularly in East Boulder, making the area accessible for bicycles and pedestrians
- More auto-centric and less walkable/bikeable within these areas due to the disconnected street grid



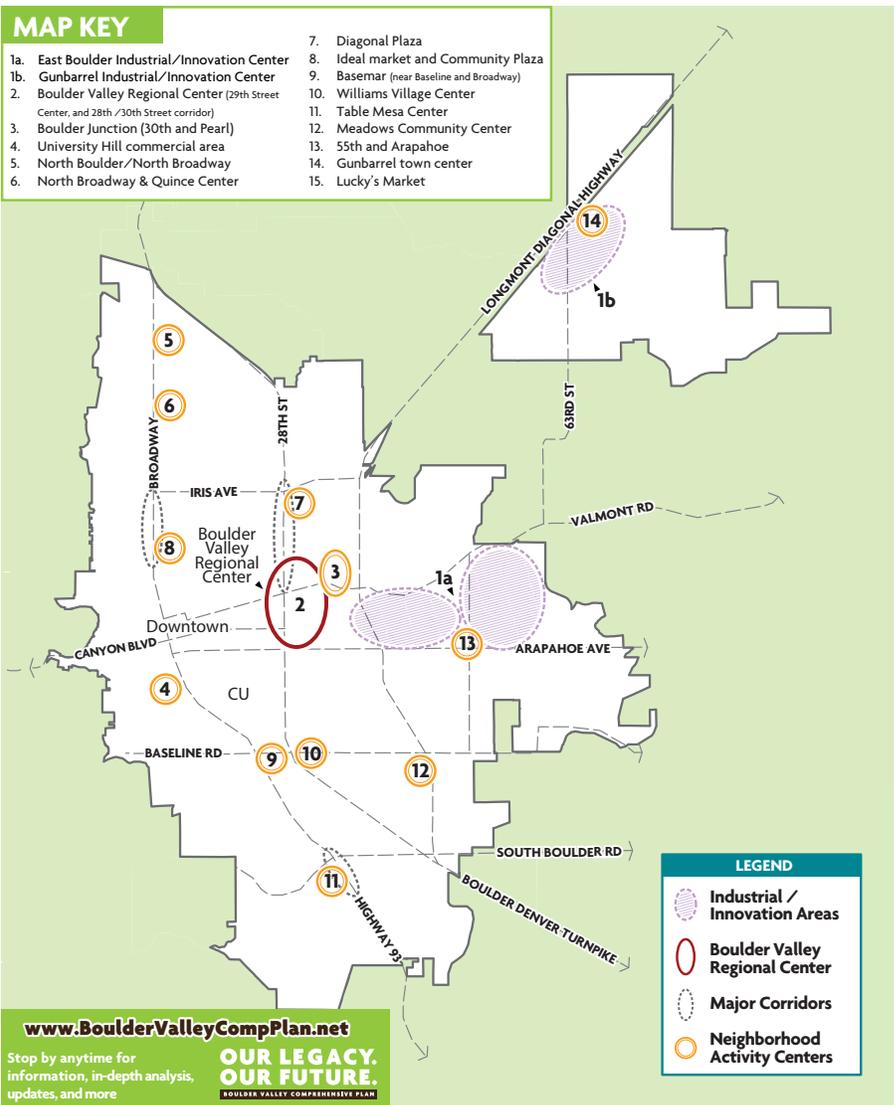
## BOULDER VALLEY REGIONAL CENTER

- Serves as a regional commercial destination with goods and services to meet the needs of the community
- Located in Boulder's Crossroads area along the highways and arterials and is accessible by vehicle, transit, and for pedestrians and bicycles locally and regionally
- Classified as General, Regional, and Mixed Use Business on the Land Use Designation Map and generally has Business Regional (BR-1) Zoning with the highest level of commercial
- Contains the regional mall, some larger big box commercial uses, a multitude of other restaurants and retail, offices, and some residential and is over 200 acres in size



## MAJOR CORRIDORS

- Varied in use. May be commercial transitioning to mixed-use or medium density housing
- Served by high frequency transit connecting the centers
- Fairly walkable/bikeable in most locations
- Abutting established neighborhoods
- Examples: 28th Street, Broadway



## NEIGHBORHOOD ACTIVITY CENTERS

- Serve as a focal point for neighborhoods. They provide goods and services to meet the day-to-day needs of nearby residents, workers, and students
- Located throughout Boulder, generally along major corridors
- Accessible from surrounding areas by vehicle, walking, bike, and transit
- Generally classified as Community Business on the Land Use Designation Map and have Business Commercial (BC-1 and BC-2) Zoning
- Have distinct identities and are important to the nearby neighborhoods
- Sometimes contain community services and functions such as libraries, or public spaces
- Generally, do not include housing; and
- Range in size from small locally serving commercial to larger grocery stores or anchor stores. Total area ranges from 4-acres (Willows Shopping Center) to 30+ acres (Meadows)



## About Established Neighborhoods

- Places where people live and with most of the community's housing
- May contain some services, public spaces, parks, other community facilities
- Heart of the community- varied and distinctive, includes:
  - Historic and pre-World War II housing organized around a street grid pattern in and near downtown
  - Post World War II neighborhoods with a curvilinear street and cul de sac pattern, and
  - Neo-traditional, New Urbanist neighborhoods that contain a mix of housing types and more compact street design

Most changes will occur outside of established neighborhoods. However, some limited housing will continue to occur in neighborhoods as retrofits or built on individual lots.



# LAND USE SCENARIOS

**DRAFT**

The land use scenarios are illustrations to test different ways of achieving community objectives.

They can be blended to achieve different goals. The scenarios incorporate input received throughout the plan update and are intended to contribute to sustainability goals such as:

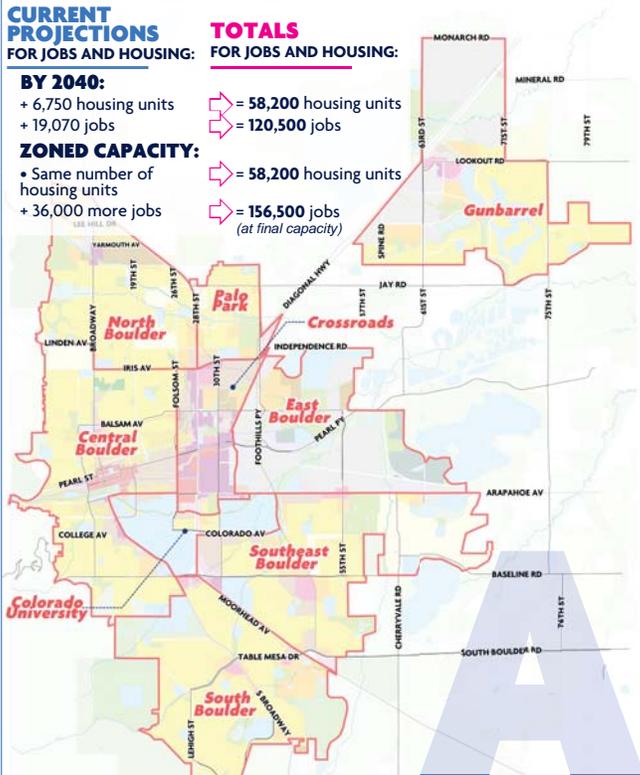
- Maintaining a compact form and protecting open space and the natural environment;

- Providing a diversity of housing types, sizes and prices (including those affordable for middle incomes) while protecting neighborhoods;
- Better balancing jobs and housing and mixing uses to reduce vehicle trips (regionally and locally);
- Improving access to daily needs, destinations, and transit from home or work;
- Reducing greenhouse gas emissions and expanding renewable energy;
- Minimizing fiscal impacts of land use changes on revenues and cost of services; and
- Maintaining economic vitality, employment diversity, and small businesses.

The analysis is under separate cover. Generally, additional housing is not projected in established single family neighborhoods in these scenarios.

In 2015, the city and its service area had an estimated 51,450 housing units (116,840 people) and 101,430 jobs. Job estimates and projections are based on nonresidential development potential. Colorado's Front Range has been in a period of growth since the recession in the late 2000s, and demographers expect the region to grow from 2.8 million people in 2016 to 4 million by 2035.\*

**EXISTING HOUSING UNITS: 51,450**  
**EXISTING JOBS: 101,430**



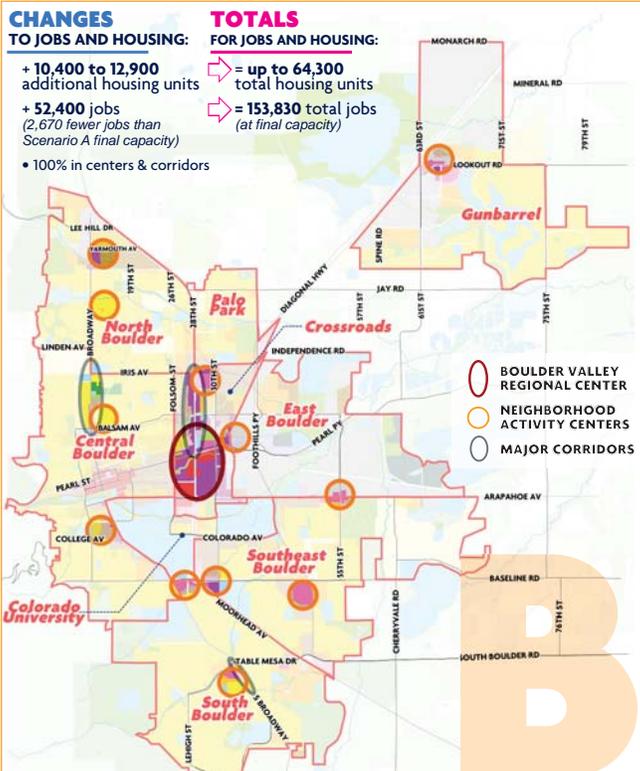
## SCENARIO A: Current Land Use Policy

This scenario continues the current land use plan and projections for future jobs and housing, with more potential for jobs than for housing.

6,750 new housing units (including over 1,000 units in CU dorms) and 19,070 new jobs are projected by 2040. Beyond 2040, the city has nonresidential capacity for an additional 36,000 jobs and no remaining capacity for housing units.

### What current policy leads to:

- **Compact Community Footprint.** Maintain a community with a defined community edge and protect the surrounding open space. The community is relatively built out. Development occurs as infill and redevelopment according to the land use plan and zoning, not as outward expansion. *This is true for all the scenarios.*
- **Future Jobs and Housing Balance.** Job capacity (based on zoning for non-residential uses) exceeds that for housing which will further imbalance jobs and housing and make it difficult to accommodate housing affordability and transportation goals.
- **Established Neighborhoods and Areas of Change.** Most of the potential for residential units is located in either mixed use or medium/high density residential zoning districts in the Crossroads subcommunity and along major commercial corridors and in centers. Most single family neighborhoods will not see major changes but may see some new residential units on scattered parcels or home renovations. The Boulder Valley Regional Center may see additional offices and commercial uses and little housing.
- **Transportation.** Relative to the other scenarios, the current policy may yield higher vehicle miles travelled (VMT) per resident and employee.
- **Fiscal and Economic Impacts.** May produce a net positive fiscal impact due to emphasis on job growth.



## SCENARIO B: Current Land Use Policy + Housing in Centers and Corridors

This scenario accommodates more housing variety than Scenario A in the Boulder Valley Regional Center, neighborhood commercial centers, and along some of the major corridors, such as 28th Street, while slightly reducing commercial/offices in those areas.

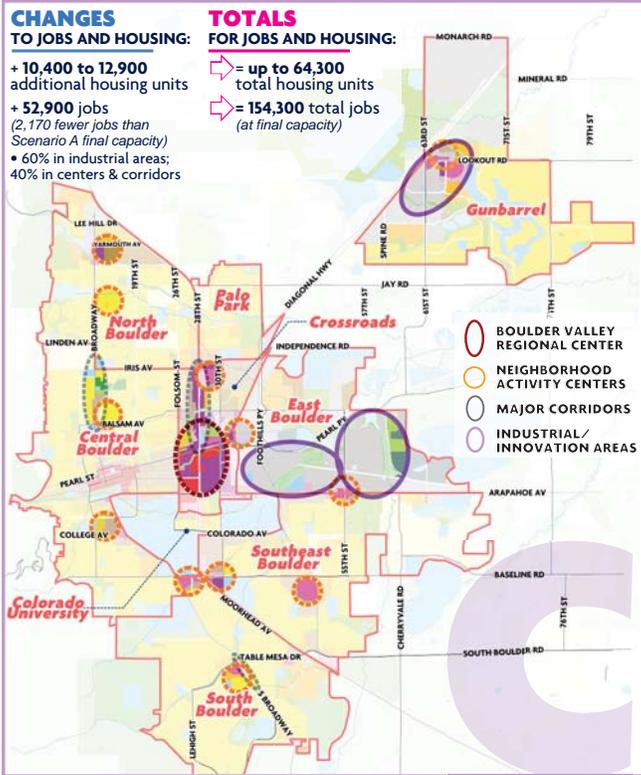
Initial analysis suggests this scenario, compared with the current policy, might lead to outcomes such as:

- **Additional Housing in Centers and Commercial Corridors.** Allows for diverse and "missing middle" housing types (e.g., townhomes, rowhomes, apartments, live-work, etc.) that may be made affordable to low, moderate, and middle incomes. New attached housing types would be primarily in centers and along commercial corridors, outside of established low density neighborhoods.
- **Future Jobs and Housing Balance.** Improves the jobs:housing balance.
- **Transportation.** Increases mixed use and housing where it is accessible to services, destinations, and transit. More than three-quarters of new housing units are concentrated in walking distances of transit. May reduce VMT per resident and employee relative to Scenario A.
- **Fiscal and Economic Impacts.** May produce a net negative fiscal impact, however, fiscal impacts of residential development vary depending on the circumstance. Non-residential development often generates tax revenues while typically placing less demand on city services than do residents. Infill often produces more positive fiscal results than expanding the urban footprint.

### What might it take to accomplish?

- **Changes to land use designations** Change designation descriptions or apply new categories (i.e. Community Business, Mixed Use Residential, General Business) describing intended mix of uses in the commercial centers (e.g., 70% commercial/30% residential, including townhomes, rowhomes and live/work).
- **Policies and regulatory changes to address land use changes, intensity, incentive-based zoning** to achieve affordable housing (underway) and address community benefits
- **Followed by Changes to Land Use Code or new districts (BC-1, BC-2, BR-1).** Standards regarding the mix, intensity, and functions. Incentivize or require new affordable housing.
- **Additional guidelines or principles** describing character of centers and corridors and transitions.
- **Additional local area planning may be necessary.**

\* The scenarios are based off the official projections completed as part of the BVCP foundations work in 2015. For 2016 data on housing units and jobs, please refer to the Boulder Community Profile: [www.bouldercolorado.gov/business/community-profile](http://www.bouldercolorado.gov/business/community-profile).



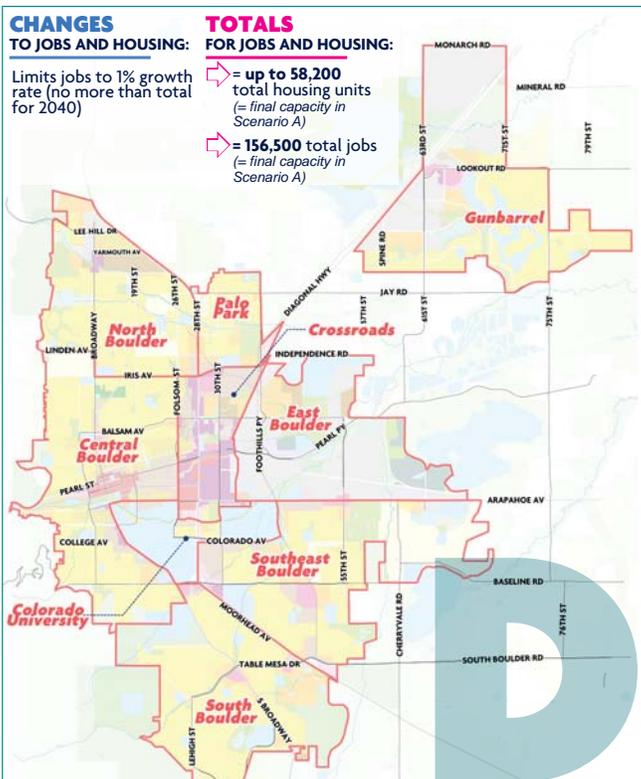
## SCENARIO C: Current Land Use Policy + Housing/Industrial Innovation

This scenario allows more housing, mixed uses and amenities in light industrial areas than Scenario A. It would support live-work units and condominiums closer to workplaces and address transportation needs in industrial areas. It would also support a mix of local services in industrial areas, which would serve the workforce as well as adjacent residential neighborhoods. Initial analysis suggests this scenario, compared with the current policy, might lead to the following outcomes:

- **Additional Housing and Mix of Uses in Light Industrial Areas.** Provides additional capacity for diverse, “missing middle” housing types (e.g., rowhomes, live-work) in some light industrial areas. These types may become affordable if they are smaller units. May lead to a mix of 70% light industrial and services (such as restaurants, groceries, and day care) and approximately 30% housing in those places.
- **Future Jobs and Housing Balance.** Reduces jobs imbalance a bit by adding housing in a jobs-rich area.
- **Transportation.** Mixing uses can reduce vehicular trips if arranged to be walkable, bikeable, and/or served by transit; so this scenario performs better than A but not as well as B. The industrial areas need additional transportation services and planning to connect with the community and regional system. May reduce VMT per resident and employee relative to Scenario A.
- **Fiscal and Economic Impacts.** As noted above, a scenario that increases housing and reduces jobs may produce a net negative fiscal impact.

### What might it take to accomplish?

- **Land Use Designation Change.** Modify some areas within the Light Industrial areas (LI) to encourage housing and a mix of locally serving uses or add a new land use category.
- **Changes to Land Use Code- General Industrial District (IG),** following policy changes, code would need to be revised to incentivize or require new housing and allow other supporting commercial uses.
- **Policies Regarding Small Business.** Develop new policies regarding small business retention and affordability to retain the viability of businesses within industrial areas (note: may apply elsewhere as well).
- **Planning transportation services and infrastructure.**
- **Additional local area planning maybe be necessary.**



## SCENARIO D: Current Land Use Policy + Commercial Growth Management

This scenario limits the rate of commercial growth (i.e., not to exceed 1% annually). It also assumes some reduction to overall jobs potential. Relative to the current policy, initial analysis suggests this scenario (standing alone or in combination with others above) may lead to the following outcomes:

- **Future Jobs and Housing Balance:** Does not change the mix of land uses or accommodate new affordable housing, but would limit the rate of job growth by 2040 thus improving the balance. Addresses community concerns about commercial development outpacing housing.
- **Transportation.** This scenario may reduce VMTs per employee by pacing nonresidential growth.
- **Fiscal and Economic Impacts.** May produce a net negative fiscal impact.

### What might it take to accomplish?

- **Tools for Nonresidential Growth Management.** Developing the policies and doing further analysis of the regulatory tools and approaches.
- **Land Use Changes and Standards.** In combination with other scenarios, certain commercial land use categories could be modified to reduce overall nonresidential potential. Also in combination with other scenarios, standards to reduce height limits (or remove height modification exemptions) for the Boulder Valley Regional Center could address the amount and location of commercial and offices. (See scenario below.)

## HYBRID SCENARIO: B + C + D

The city also is working with consultants to test a hybrid scenario that combines attributes of B, C, and D – adding more housing potential to centers, corridors, and industrial areas, further reducing jobs or nonresidential potential in the Boulder Valley Regional Center and in the other neighborhood centers and industrial areas, and pacing commercial growth.

**CHANGES TO JOBS AND HOUSING:** **TOTALS FOR JOBS AND HOUSING:**

- + 16,570 additional housing units
- + 46,800 jobs (9,200 fewer jobs than Scenario A final capacity)
- 60% in centers and corridors; 40% in industrial areas
- Limits jobs to 1% growth rate (no more than total for 2040)
- ➡ = up to 58,200 total housing units (= final capacity in Scenario A)
- ➡ = 156,500 total jobs (= final capacity in Scenario A)

# SCENARIO A: "The Baseline"

## CURRENT DISTRIBUTION OF PROJECTED JOBS AND HOUSING

	2015 Dwelling Units	Additional Dwelling Units to Zoning Capacity	Additional Jobs by 2040	Additional Jobs to Zoning Capacity	YOUR NOTES
Central Boulder	13,370	730	1,330	3,820	
Colorado University	2,020	1,080	1,220	3,510	
Crossroads	4,250	1,250	3,820	10,950	
East Boulder	1,400	800	6,010	17,260	
Gunbarrel	5,600	200	4,480	12,850	
North Boulder	6,080	620	390	1,120	
Palo Park	1,720	480	110	310	
South Boulder	7,320	480	600	1,730	
Southeast Boulder	9,680	1,120	1,120	3,210	

**Total Projected Housing Units: 6,750**

**Total Jobs Projected for 2040: 19,070**

**Total Jobs at Zoning Capacity: 54,760**

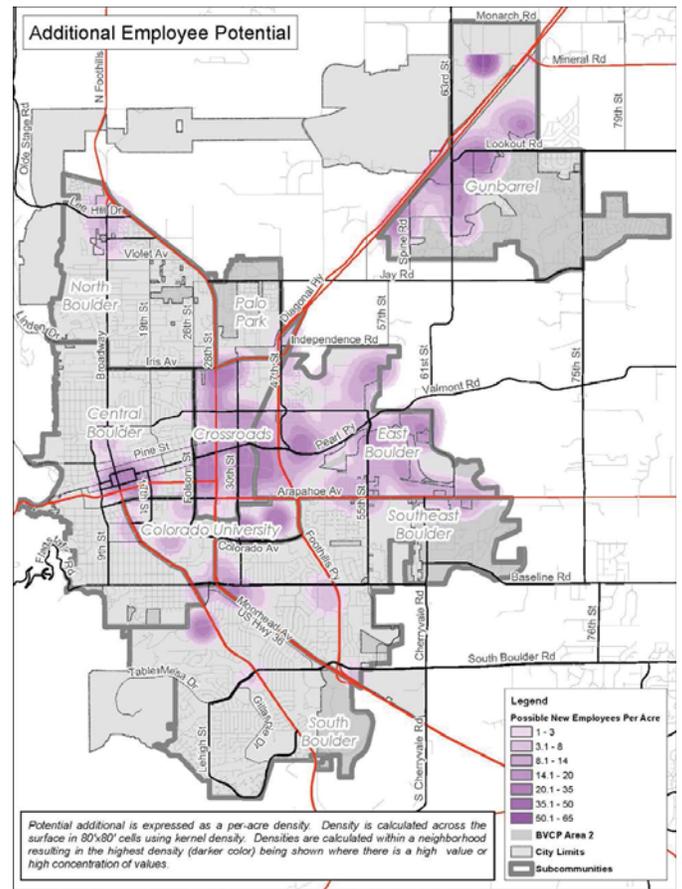
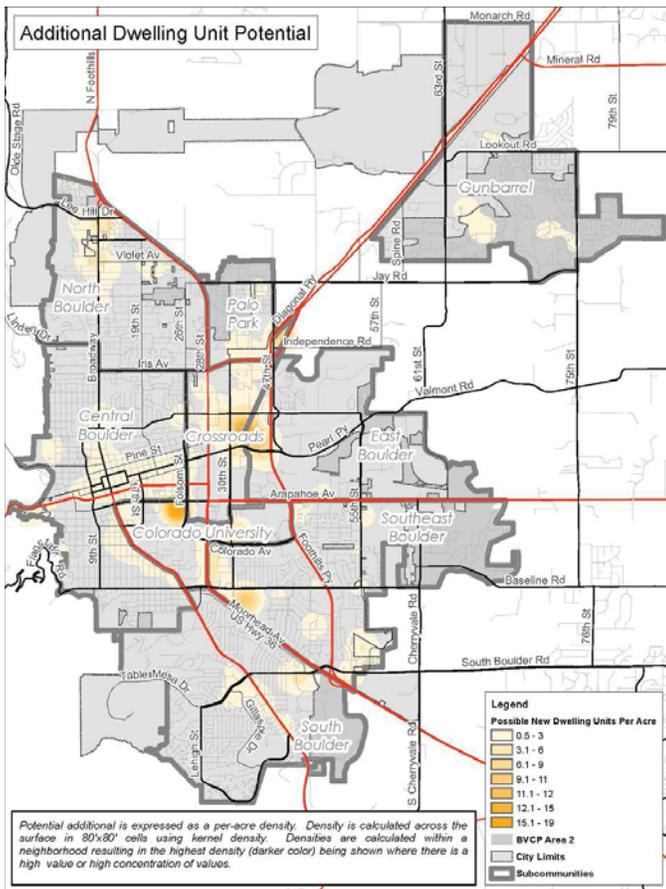


Figure 1: Additional Dwelling Unit Potential at Zoning Capacity

Figure 2: Additional Employee Potential at Zoning Capacity

# PRELIMINARY HOUSING CONCEPTS

## multifamily housing concepts

These ideas are being analyzed as part of the land use scenarios.

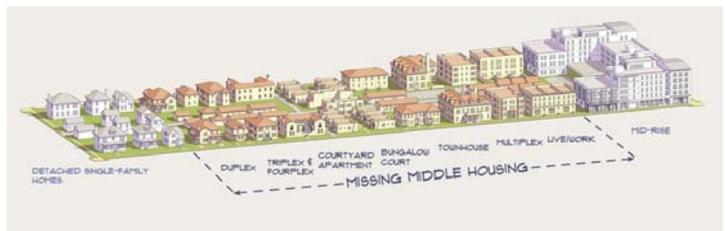
These types of housing could take place in neighborhood and regional activity centers, industrial/innovation areas or along major commercial corridors. They are not intended for neighborhoods.

**Housing Diversity** The BVCP includes a core value of achieving a “diversity of housing types and price ranges.” In addition, the 2015 BVCP survey and focus group results concluded that this core value was the **community’s #1 priority**.

**Missing Middle** refers to middle-density housing prototypes. Illustrated to the right is the range of “missing middle” housing types that could be incorporated as part of the city’s centers, corridors, and industrial/innovation areas to help achieve housing priorities and support other community goals.

These prototypes:

- offer densities between single family detached homes and mid-rise apartment buildings;
- are lower in scale than traditional apartment buildings, providing a compatible solution to transitions from single family neighborhoods;
- incorporate amenities like private small yards or terraces that the market is demanding in Boulder;
- fall within a more affordable price range than single family homes; and
- are appropriate for young professionals entering the workforce, young couples and families, and the aging population.



**How does this relate to the citywide scenarios and policy choices?**

To include more diverse housing options in close proximity to existing jobs and retail services, these prototypes are relevant in the centers, corridors, and industrial/innovation areas.

### 1 TOWNHOUSE COURT

**EXAMPLE PROTOTYPE STATS:**  
 TYP. LOT SIZE = 25 x 100'    OWN or RENT = OWN  
 UNIT SIZE = 1,500 - 2,000 SF    DENSITY = 12-15 DU/AC  
 PARKING = REAR YARD/ DETACHED    FORM = ATTACHED SINGLE FAMILY

### 2 COTTAGE COURT

**EXAMPLE PROTOTYPE STATS:**  
 TYP. LOT SIZE = 22 x 65'    OWN or RENT = OWN  
 UNIT SIZE = 800 - 1,500 SF    DENSITY = 20-25 DU/AC  
 PARKING = OFF-STREET    FORM = ATTACHED SINGLE FAMILY

### 3 ROWHOUSE

**EXAMPLE PROTOTYPE STATS:**  
 TYP. LOT SIZE = 22 x 100'    DENSITY = 25-30 DU/AC  
 UNIT SIZE = 1,700 - 2,000 SF    FORM = ATTACHED SINGLE FAMILY  
 OWN or RENT = OWN

### 4 ROWHOUSE + FLAT

**EXAMPLE PROTOTYPE STATS:**  
 TYP. LOT SIZE = 22 x 100'    OWN or RENT = OWN or RENT  
 UNIT SIZE = 650 - 1,800 SF    DENSITY = 30-40 DU/AC  
 PARKING = REAR, UNDER & DETACHED    FORM = ATTACHED SINGLE FAMILY

### 5 WALK-UP / STACKED FLAT

**EXAMPLE PROTOTYPE STATS:**  
 TYP. LOT SIZE = 65' x VARIES    DENSITY = 35 - 40 DU/AC  
 UNIT SIZE = 500 - 900 SF    FORM = APARTMENT  
 PARKING = TUCK-UNDER    OWN or RENT = OWN or RENT

### 6 LIVE/WORK

**EXAMPLE PROTOTYPE STATS:**  
 TYP. LOT SIZE = 25' x 100'    OWN or RENT = OWN  
 UNIT SIZE = 1,000 - 1,600 SF +    DENSITY = 10-15 DU/AC  
 COMMERCIAL = 600 - 900 SF    FORM = CONDO  
 PARKING = REAR / UNDER

This paper addresses how the land use scenarios (described briefly below and under separate cover) may perform relative to the following objectives.

1. Provide a diversity of housing and affordability
2. Protect and strengthen neighborhoods
3. Make progress on transportation objectives (e.g., reducing vehicle miles traveled and greenhouse gas emissions; managing congestion; expanding options; increasing the share of residents living in complete, walkable neighborhoods; increase transportation alternatives commensurate with the rate of employee growth)
4. Balance jobs and housing (to reduce vehicle trips and address other regional impacts)
5. Protect open space and the natural environment
6. Reduce greenhouse gas emissions and expanding renewable energy
7. Minimize fiscal impacts of development; ensure development pays its own way and that city can adequately serve new development; and
8. Maintain economic vitality, employment diversity and small business

Additional analysis is underway, particularly related to the mix of uses and whether scenarios are achievable or may need adjustments to assumptions about the land uses.

## Scenario Overview

The scenarios were formed to test ideas, and while they are largely about land use (e.g., housing and commercial/industrial) they also help frame a conversation about the kind of community Boulder aims to be.

**Scenario A – Current Land Use Policy**, which continues the current land use plan and projections for future housing and nonresidential land uses (translating to jobs) with more potential for jobs than for housing. It anticipates approximate 6,750 new housing units (including CU's approximately 1,000 units) and 19,070 new jobs by 2040. Beyond 2040, the city has non-residential capacity for an additional 36,000 jobs and no projected remaining capacity for housing units.

**Scenario B – Current Land Use Policy + Housing in Centers and Along Corridors**, which accommodates more housing variety than Scenario A in the Boulder Valley Regional Center, neighborhood commercial centers, and along some of the major corridors such as 28<sup>th</sup> Street, while slightly reducing commercial/office development potential in those areas. This scenario could add 10,400 to 12,900 additional housing units and may reduce job potential by about 2,670. The changes would occur in centers (65%) and along corridors (35%).

**Scenario C – Current Land Use Policy + Housing/Industrial Innovation**, which accommodates more housing, mixed uses, and amenities in light industrial areas than Scenario A. It would support live-work units and a variety of housing types closer to workplaces and address transportation needs in industrial areas such as Flatiron Business Park area or some parts of Gunbarrel industrial areas. This scenario could add 10,400 to 12,900 additional housing units, with 60% of them in the industrial areas and 40% in centers and along corridors.

**Scenario D – Current Policy + Commercial Growth Management**, limits the rate of commercial growth (i.e., not to exceed one percent annually) and does not change current housing projections. It could also result in some reduction to overall job potential in combination with other land use scenarios.

**Scenario E – Hybrid (B+C+D)**, combines land use and housing attributes of the above scenarios, further reducing jobs or nonresidential growth potential in the centers and industrial areas.

## Analysis

### Housing Affordability

#### *Will changing land uses to encourage more middle income housing products support housing goals?*

- ✓ The scenarios (B, C, and E) that add potential for more townhomes, rowhomes and flats beyond the 6,750 units currently anticipated will improve the outlook for middle income housing.

However, additional inclusionary housing/affordable housing policies and regulations will be necessary to ensure that a portion of new housing built is permanently affordable and/or market rate affordable to middle income households.

The higher range of housing numbers in each scenario (B, C, and E) is ambitious based on analysis of redevelopment potential and rates, and depends to a great deal on desired future intensity (i.e., if the housing mix shifts toward more townhomes and low rise buildings for instance, the number of units possible would be lower). The following estimates may get adjusted with further study of the land use mix:

- Scenario B could yield from 1,040 to 1,760 new townhomes and live-work units and from 1,600 to 2,680 rowhomes and flats.
- Scenario C could yield from 1,300 to 2,220 new townhomes and live-work units and from 1,530 to 2,590 rowhomes and flats
- Scenario E, the hybrid, could yield up to 3,290 townhomes and live-work units and 4,170 rowhomes and flats and assumes greater levels of redevelopment than the previous options.

Boulder's current housing mix is approximately 44% detached (single family and mobile homes) and 56% attached products, with less than 10% of the attached products as duplex/triplex or townhomes. These lower-density attached walk-up types of housing products have been identified as the "missing middle" housing type for which there is large demand according to the Housing Boulder studies (i.e., *Housing*

*Choice Survey, 2014 and Housing Market Analysis, 2013, BBC, Inc.*). Attached housing types are typically more affordable than detached products. Consultant, Keyser Marsten, prepared an initial analysis of housing prototypes (i.e., townhomes, live-work, small lot single family, micro units and accessory dwelling units) to determine their relative affordability for Boulder. The firm found that the townhomes/rowhomes that could be built in commercial and industrial areas (Scenarios B and C) are less likely to be affordable compared to smaller apartment units. However, depending on land costs and assuming smaller units, those types of housing could remain affordable into the future. Additional analysis is underway.

The city is also working on policies and regulations to ensure that land use changes result in a higher percentage of permanently affordable units. Three particular policies are being studied and discussed:

- (1) a requirement that for any increase in residential land use intensity, the city would require that a portion of the additional housing units allowed be permanently affordable;
- (2) amendment to Inclusionary Housing requirement to require middle income housing to be included in all new development – in addition to the current 20% requirement for low and moderate income housing; and
- (3) providing an incentive for developers to provide additional community benefits (e.g., open space, trails, historic preservation, arts, etc.) as a condition for higher intensity or other flexible standards.

## **Protecting and Strengthening Neighborhoods**

### ***Do any of the land use changes directly affect established low density neighborhoods?***

- ✓ None of the land use scenarios directly affect established low density neighborhoods.

The land use changes to add housing potential are aimed within commercial (Scenario B) and industrial areas (Scenario C); however, their proximity to residential areas in some cases may create transition pressures or concerns about spill over impacts that will need to be addressed. Scenario D, aimed at decreasing commercial potential also does not directly benefit or impact neighborhoods, however reducing the overall pace of development in the community may be beneficial to community character and retaining the assets and places the community cherishes. Policy discussions about infill, local area/neighborhood planning, neighborhood protection policies are occurring parallel with the land use scenario analysis and would be more pertinent to protecting and strengthening neighborhoods. Scenario C, with amenities in industrial/innovation areas, might contribute to creating new neighborhoods that have a mix of activities.

## **Transportation Progress**

### ***Can the addition of housing, better overall jobs/housing balance, or mix of land use in certain locations have a positive effect on progress toward transportation objectives?***

- ✓ Land use changes and urban form can make a significant difference in travel choices.

- ✓ Regional transportation planning that is underway will also be necessary to make progress on transportation objectives identified in the Transportation Master Plan.
- ✓ Scenario B, with its focus on concentrating mixed uses in “centers” and along commercial corridors with transit outperforms A, C, and D.
- ✓ Scenario E (the hybrid scenario that combines B+C and offsets housing increases +9,800 with job reductions -9,200) seems to perform best of all.

Research and practice in cities has long showed that mixing uses together at higher intensities near transit and with good access to pedestrian and bicycle infrastructure can help reduce local congestion and improve mobility and livability. Building on the work done for the Transportation Master Plan, Nelson Nygaard has performed an initial comparison the four scenarios plus a hybrid scenario. The model outcomes suggest that locating housing and mix of uses in centers and along corridors (Scenario B) have a slight positive effect on:

- a. Placing more new units in 15-minute neighborhoods – places with access to goods and services and destinations,
- b. reducing vehicle miles traveled and congestion,
- c. locating more future housing within a quarter mile of existing and planned transit,
- d. placing more new units within access districts (places with transportation options programs such as EcoPasses and pricing of parking to manage supply and demand), and
- e. addressing pedestrian and bicycle safety.

Additionally:

- locating housing in industrial areas where there is not good infrastructure (Scenario C) will not necessarily improve local access unless local connections are improved but might benefit overall jobs/housing balance.
- Transportation Demand Management and parking management will play an important role related to the results. Where the density and mix of uses supports TDM and parking management, they can have a significant impact on mode share and travel.
- It is unknown if reducing potential for nonresidential growth and jobs (Scenario D) will have a beneficial impact on vehicle miles travelled (VMT) or managing congestion. Ultimately reducing the number of jobs in Boulder may reduce travel in/out of Boulder. However, those jobs may increase elsewhere in the surrounding region which could actually increase VMT countywide (and GhGs associated with vehicle travel) particularly if the jobs are located in surrounding communities with fewer travel options.

*(Note: The consultant anticipates doing another model run to compare the 2040 outcomes vs. zoned capacity because the different time horizons may have skewed results favorably toward Scenario D. That scenario reflects a 2040 horizon whereas other scenarios are based on zoned capacity beyond 2040 with each having a higher jobs projection.)*

## Jobs/Housing Balance

*Can changing land uses better balance jobs and housing and thus yield other benefits, as addressed in Policy 1.19? What is an optimal balance?*

- ✓ Scenario D outperforms each of the scenarios by 2040, resulting in a jobs/housing balance of 2.4 (vs. 2.46 to 2.76), however the final number is not really a fair comparison because it is a 2040 figure whereas the others are based on zoned capacity.
- ✓ Of the scenarios comparing zoned capacity, Scenario E, the hybrid with its higher amount of new housing and greater reduction of non-residential potential, outperforms A, B and C, with a balance of 2.22.

Cities have not identified an optimal balance or universal standard for jobs and housing balance – the mix is really driven by individual community goals and values, according to research. BVCP Policy 1.19 states that Boulder is an employment center and will seek opportunities to improve the balance of jobs and housing while maintaining a healthy economy. Each of the scenarios aim for better balance, recognizing that the mix and locations of land uses (e.g., creating more housing in jobs-rich areas) can affect transportation systems in particular and possibly shift the tradeoff of housing/travel costs for some workers and residents. Boulder’s current balance of jobs to housing in the community is 2.04, and with the current policy (Scenario A), the future imbalance is expected to grow closer to 2.76. The city’s land use GIS model and Nelson Nygaard transportation model indicate that Scenarios B, C, and D could each have some benefit toward shifting the future imbalance of jobs and housing that may have small positive other effects on regional transportation and demand for housing and overall affordability.

## Fiscal Impacts

*Will shifting the balance of future housing and jobs and changing land uses have fiscal impacts to the community’s revenues?*

It is unknown how the scenarios perform relative to each other without a detailed fiscal impact model that is not scoped for this comprehensive plan update; however, from previous models the city may have some ideas how the scenarios may perform.

Residential can have a net fiscal negative impact whereas commercial and industrial often has a net fiscal positive impact according to a fiscal impact model prepared for the city in the early 2000s. Keyser Marsten reviewed that model and observes that land use changes that add more housing/reduce jobs could yield slight negative fiscal impacts (Scenarios B and C), but infill and redevelopment tends to have less of a negative fiscal impact on revenues than greenfield development, so the negative impact could be offset. Using the same assumptions, reducing the potential for nonresidential space also may have a slight negative fiscal impact (Scenario D).

## **Land Use Change Effects on Water/Wastewater and Stormwater Utilities**

### ***Does the city have the water and infrastructure to serve land use changes brought on by each of the scenarios?***

- ✓ The city has adequate water and the infrastructure to serve Scenarios A, B, C, and D. The range of projected units for each are supportable by city utilities. Scenario B may perform slightly better where new housing is concentrated in centers near existing infrastructure and largely in Tiers 1 and 2 of city service areas.
- ✓ Scenario E may be more challenging for the city to provide utilities over the long term because more units are anticipated.

Initial input from city utilities indicates that water demand in the community has been flat in recent years despite increases in population and jobs. That is in part due to efficiencies and upgrades in appliances and more outdoor water conservation or less outdoor use due to higher density developments. Both the water and wastewater systems are designed to support the city's current projections for growth (Scenario A) and could accommodate an increase in general terms that would support either Scenarios B or C. However, a scenario that projects additional units into East Boulder (into service Zone 3) may require additional infrastructure upgrades that would need to be funded by development. The hybrid scenario (combination of B and C, that adds an additional 9,800 housing units in centers and the industrial areas) would maximize the water system's potential at 10B gallons/year. Finally, the city's stormwater system has unfunded system needs that would need to be addressed in any case.

## **Energy and GhG Reductions**

### ***How do the scenarios affect energy conservation, GhG reductions, and/or the potential to increase renewable energy production?***

- ✓ None of the scenarios shine or fail from an energy and climate standpoint. The implementation details are what matter most – building energy use and site planning to optimize renewable energy production.
- ✓ Scenario B may have some benefit to reducing GhGs related to transportation energy use.

The city has worked with Integral Group on an Energy System Transformation Strategy and land use case studies. Integral's study of an industrial area do not suggest that land uses changes will largely affect transformations to energy use and renewables. Other policies, codes (e.g., Energy Code update) and strategies and programs will have a greater effect. The city sees a large GhG impact from non-resident employees who average travel of 28 miles a day versus 11 for a Boulder resident. The TMP analysis shows almost a third of the city's transportation GhG emissions come from the non-residential employees. Such emissions would grow significantly with most of the scenarios. A scenario that mixes uses to reduce VMT (i.e., Scenario B) may have some benefit to reducing GhGs related to transportation

energy, especially if combined with Electric Vehicle (EV) adoption, passenger vehicle fuel efficiency improvements and mode shifts (which, as noted above, can be supported by land use changes).

## **Open Space and Natural Environment**

### ***Do any of the land use changes or scenarios affect open space or the natural environment?***

- ✓ All of the scenarios retain existing city or county open space and focus on infill and redevelopment. All scenarios assume that future building would be outside of floodplains.

Boulder's compact development pattern, urban service boundary, and thousands of acres of acquired and permanently protected open space is a foundation for continued protection of local environmental qualities and biodiversity. The land use changes in the scenarios, because they are in-ward focused and rely on redevelopment in existing built areas such as commercial centers and industrial areas, do not have direct impacts on open space lands. Allowing for additional housing in such areas may alleviate pressure outside the urban area to build housing in greenfields, but increased population or workforce in the city (Scenarios A, B, C) may also create higher demands on the already well-loved open spaces and trails. Open Space and Mountain Parks will be developing a master plan to continue to address visitor management on open space lands, and other city plans and programs address other natural system management needs.

## **Economic Vitality**

### ***Do any of the scenarios affect employment diversity or economic vitality?***

- ✓ Scenario A, the current policy, projects a higher number of future jobs than any of the other scenarios so it may yield the greatest employment diversity.
- ✓ Scenario D most strongly manages or limits commercial and industrial growth which could affect economic vitality.

Land use changes that allow for or encourage additional housing in commercial/industrial areas may diminish business potential or viability; however, housing availability and affordability is also an important need for workforce recruitment retention and economic vitality in Boulder. Scenarios that result in some additional permanent affordability for housing are also positive in terms of economic vitality.

## **Other Community Services – Parks, Fire/Police, etc.**

### ***Do any of the scenarios require attention to additional community services or needs?***

- ✓ Scenario C, which places more housing in the industrial area would require additional park planning and consideration of how additional fire, police, and other services would be provided to the east side and Gunbarrel business areas.

Land use changes that allow for or encourage additional housing in areas that have traditionally been employment focused but lacking neighborhood amenities will require further planning. For instance, the Flatiron Business Park area has trails that connect to open spaces but not traditional parks and recreation. Similarly, the area does not have schools or other residential services nor small scale retail or grocers. Such uses and services would need to be planned as new housing is introduced.

Scenarios	A	B	C	D	E
	Current Policy (Zoned Capacity)	+ Housing in Centers and Commercial Cor.	+ Housing in Industrial/Innovation Areas	Commercial Growth Management (2040)	Combined B and C (+ housing, - jobs)
<b>INDICATORS</b>					
<b>Housing and Livability</b>					
Balance jobs:housing (Ratio – jobs: dwelling units) (Source: City of Boulder (City), Nelson Nygaard)	2.76	2.46	2.46	2.14	2.22
Possible new housing units (City)	6,750	10,400 to 12,900	10,400 to 12,900	6,750	Up to 16,570
Range of types and affordability of dwelling units (assuming 20% affordable for current policy and 40% for new scenarios) (City)	1,150	1,850 – 2,460	1,850 – 2,460	1,150	3,930
<b>Transportation</b>					
New housing units near services, destinations, transit (Nelson Nygaard)	21%	81%	65%	21%	64%
New housing dwelling units in areas with high street connectivity (Nelson Nygaard)	72%	72%	62%	72%	64%
New housing units within ¼ mile of transit - Community Transit Network (CTN) (Nelson Nygaard)	65%	79%	65%	65%	71%
Vehicle Miles Traveled (VMT) – relative comparison (Nelson Nygaard qualitative)	OK	Better	Better	Better	best
New dwelling units within access districts (ability for Transportation Demand Management and managed parking) (Nelson Nygaard)	16%	46%	35%	16%	56%
<b>Environment and Energy</b>					
Acres of city open space lands maintained (no loss all scenarios) (City)					
Greenhouse gas emissions from transportation (related to VMT) (Nelson Nygaard, Integral Group)					
<b>Economic</b>					
Number of future new jobs based on changes to nonresidential lands (City)	56,000	52,400	52,900	19,020 (2040)	46,800
Fiscal impact to general fund (Ratio of revenues to expenditures) (City, Keyser Marsten based on qualitative research)					
<b>Safety and Infrastructure</b>					
Water and wastewater level of service (City utilities in initial exploration)					

**Key:**  Least favorable  Moderately favorable  More favorable

Other topics for further evaluation or policy development:

- Location of dwelling units within ¼ mile space and trails (GIS analysis)
- Location of dwelling units within ¼ mile schools and other community facilities (health, government) (GIS analysis)
- Location of new units in or within ¼ mile of neighborhoods (GIS analysis)
- Location of new units related to fire station and ability to serve
- Renewable energy generation (policy development)
- Building energy use (Building Code)
- Commercial and small business retention and affordability (policies)

# Neighborhood Activity Centers

# DRAFT

## What can we expect from current policy?

### Uses

Most neighborhood centers have a land use designation of Community Business (CB), which the plan describes as a “focal point for commercial activity serving a subcommunity or a collection of neighborhoods.” Residential uses such as single-family and multi-family housing, duplexes and townhouses are allowed in these centers but are not commonly developed.

### Form/Height

BC-1 and BC-2 zone districts, which are most common in these centers, encourage more suburban types of development, e.g. large setbacks and buildings that front parking. This largely reflects the characteristics of the older shopping centers that were developed in the early 60s and 70s. Development is restricted to three stories, and a building height of 35', except where height modifications are permitted (generally areas with adopted area plans). While most centers are designated as Community Business (CB), new and emerging neighborhood centers in North Boulder and Boulder Junction are zoned as mixed-use (MU) and Business – Main Street (BMS), which both encourage a more walkable, pedestrian-friendly and mixed-use environment.

## Draft Principles

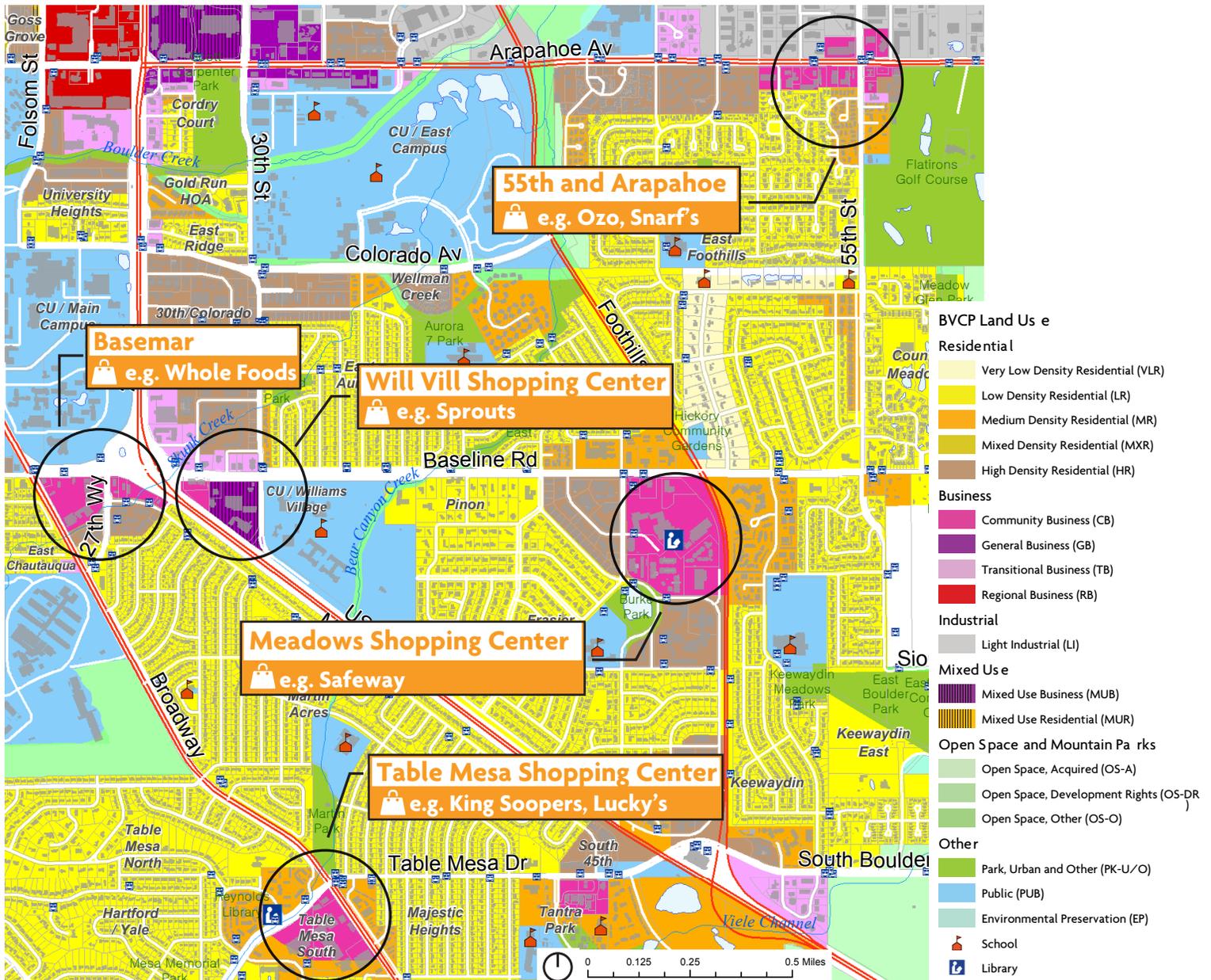
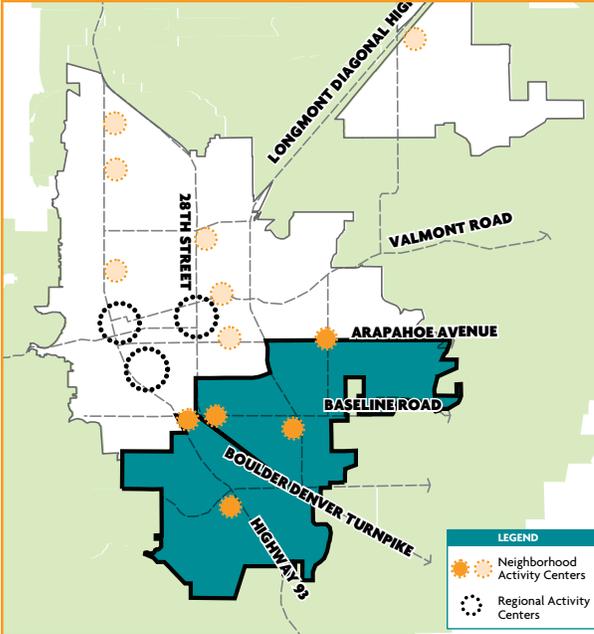
**Tell us what you think!**

- 1. Mix of activities and vibrancy.** Include a mix of locally-serving retail (e.g. retail anchors such as grocery stores and personal services such as hair salons) and other activities (e.g. smaller-scale office uses) to meet day-to-day needs and sustain both daytime and evening activity.
- 2. Mobility hubs.** Include a richness of transportation amenities and conveniences such as sheltered seating, shared bicycles, bike cages and repair stations, among others.
- 3. Meaningful public realm.** Create permeability in centers with a mix of semi-public and public spaces that are connected visually and easy to navigate. Include civic and cultural uses as well as outdoor seating, shade trees and green spaces in the public spaces to create a unique identity and sense of place.
- 4. Architectural appeal.** Foster approachability and appeal of buildings through multiple entrances, four-sided design and attractive, well-designed architecture made of quality, long-lasting materials.
- 5. Comfort and safety.** Include human-scaled lighting, furnishings, signs and way-finding that feel welcoming, safe and comfortable for users of all ages and abilities. Provide unimpeded connections within the centers between parking, transit, retail and residential uses.
- 6. Parking not dominant.** Place parking behind and to the sides of buildings or in structures rather than in large street-facing lots. Encourage parking management strategies, such as shared parking, and versatile parking structures that are designed with the flexibility to allow for different uses in the future.
- 7. Low-impact design.** Contribute toward sustainability goals with low-impact site design that incorporates green infrastructure (e.g. permeable materials and bioswales).
- 8. Transitions to neighborhoods.** Ensure compatibility of buildings with adjacent residential uses and decrease intensity of activity around edges near neighborhoods. Encourage a diversity of residential uses such as attached single family housing, rowhomes and a variety of flats within these areas of transition.

# South and Southeast Boulder Neighborhood Activity Centers

## EXISTING CHARACTERISTICS

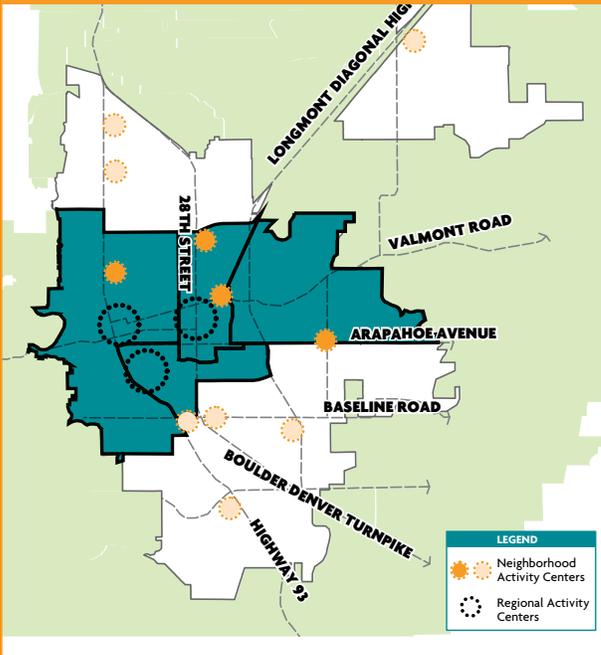
- Serve as a focal point for neighborhoods. They provide goods and services to meet the day-to-day needs of nearby residents, workers, and students
- Located throughout Boulder, generally along major corridors
- Accessible from surrounding areas by vehicle, walking, bike, and transit
- Generally classified as Community Business on the Land Use Designation Map and have Business Commercial (BC-1 and BC-2) Zoning
- Have distinct identities and are important to the nearby neighborhoods
- Sometimes contain community services and functions such as libraries, or public spaces
- Generally, do not include housing; and
- Range in size from small locally serving businesses to larger grocery stores or anchor stores. Total area ranges from 4-acres (Willows Shopping Center) to 30+ acres (Meadows)



# Central and East Boulder, Crossroads, & University Neighborhood Activity Centers

## EXISTING CHARACTERISTICS

- Serve as a focal point for neighborhoods. They provide goods and services to meet the day-to-day needs of nearby residents, workers, and students
- Located throughout Boulder, generally along major corridors
- Accessible from surrounding areas by vehicle, walking, bike, and transit
- Generally classified as Community Business on the Land Use Designation Map and have Business Commercial (BC-1 and BC-2) Zoning
- Have distinct identities and are important to the nearby neighborhoods
- Sometimes contain community services and functions such as libraries, or public spaces
- Generally, do not include housing; and
- Range in size from small locally serving businesses to larger grocery stores or anchor stores. Total area ranges from 4-acres (Willows Shopping Center) to 30+ acres (Meadows)



### BVCP Land Use

#### Residential

- Very Low Density Residential (VLR)
- Low Density Residential (LR)
- Manufactured Housing (MH)
- Medium Density Residential (MR)
- Mixed Density Residential (MXR)
- High Density Residential (HR)

#### Business

- Community Business (CB)
- General Business (GB)
- Service Commercial (SC)
- Transitional Business (TB)
- Regional Business (RB)

#### Industrial

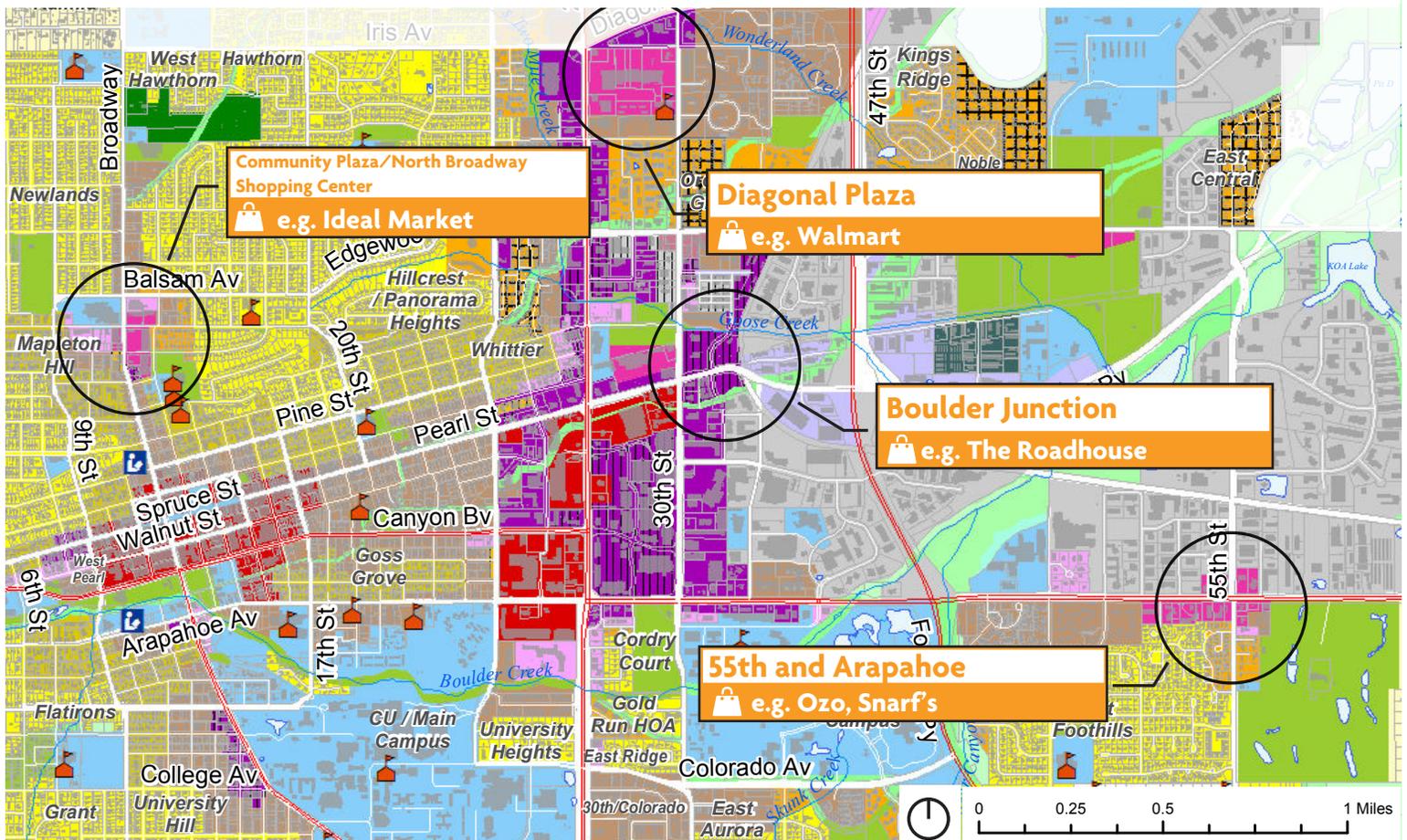
- Community Industrial (CI)
- General Industrial (GI)
- Light Industrial (LI)
- Performance Industrial (PI)
- Mixed Use
  - Mixed Use Business (MUB)
  - Mixed Use Industrial (MUI)
  - Mixed Use Residential (MUR)

#### Open Space and Mountain Parks

- Open Space, Acquired (OS-A)
- Open Space, Development Rights (OS-DR)
- Open Space, Other (OS-O)

#### Other

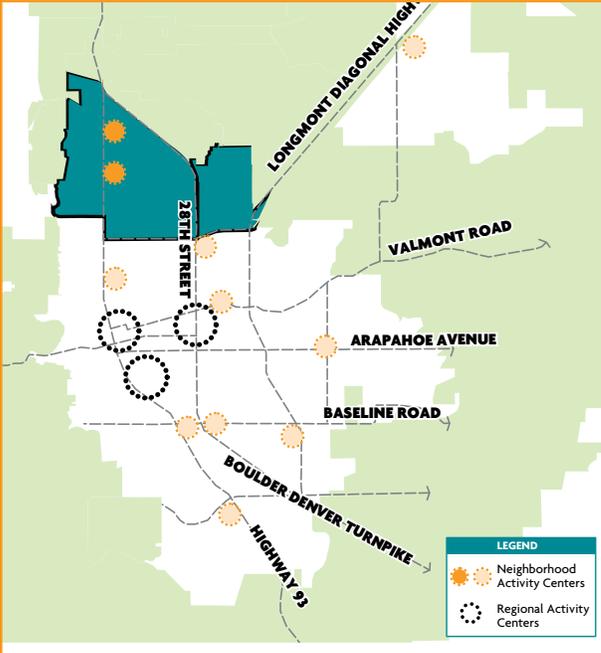
- Agricultural (AG)
- Park, Urban and Other (PK-U/O)
- Public (PUB)
- Environmental Preservation (EP)
- School
- Library



# North Boulder and Palo Park Neighborhood Activity Centers

## EXISTING CHARACTERISTICS

- Serve as a focal point for neighborhoods. They provide goods and services to meet the day-to-day needs of nearby residents, workers, and students
- Located throughout Boulder, generally along major corridors
- Accessible from surrounding areas by vehicle, walking, bike, and transit
- Generally classified as Community Business on the Land Use Designation Map and have Business Commercial (BC-1 and BC-2) Zoning
- Have distinct identities and are important to the nearby neighborhoods
- Sometimes contain community services and functions such as libraries, or public spaces
- Generally, do not include housing; and
- Range in size from small locally serving businesses to larger grocery stores or anchor stores. Total area ranges from 4-acres (Willows Shopping Center) to 30+ acres (Meadows)



### BVCP Land Use

#### Residential

- Very Low Density Residential (VLR)
- Low Density Residential (LR)
- Manufactured Housing (MH)
- Medium Density Residential (MR)
- Mixed Density Residential (MXR)
- High Density Residential (HR)

#### Business

- Community Business (CB)
- General Business (GB)
- Service Commercial (SC)
- Transitional Business (TB)
- Regional Business (RB)

#### Industrial

- Community Industrial (CI)
- General Industrial (GI)
- Light Industrial (LI)
- Performance Industrial (PI)

#### Mixed Use

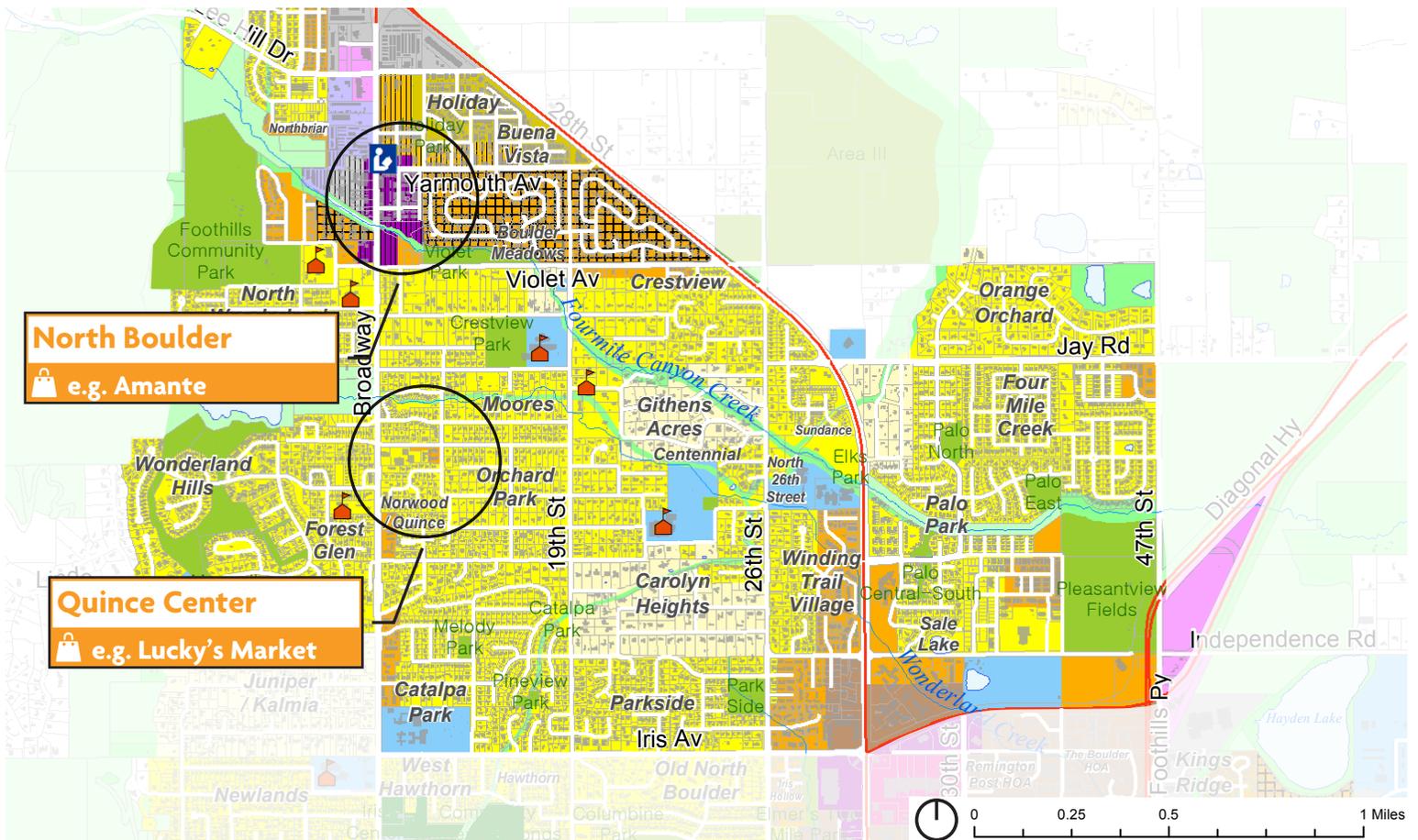
- Mixed Use Business (MUB)
- Mixed Use Industrial (MUI)
- Mixed Use Residential (MUR)

#### Open Space and Mountain Parks

- Open Space, Acquired (OS-A)
- Open Space, Development Rights (OS-DR)
- Open Space, Other (OS-O)

#### Other

- Agricultural (AG)
- Park, Urban and Other (PK-U/O)
- Public (PUB)
- Environmental Preservation (EP)
- School
- Library



# What is your vision for neighborhood activity centers?

The visuals presented below are to aid in community dialogue. They will be updated through early next year to reflect community input and other feedback received from City Council, Planning Board, and boards and commissions.

Row homes and townhomes provide transition to adjacent residential neighborhoods	Office and community serving retail concentrated along the arterial with row homes and townhomes behind
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## Transition Areas Buffering Existing Low Density Neighborhoods

 **View 1** (see aerial diagram on the back for orientation) **DRAFT**

Pedestrian walkway and shared greenspace for residents, employees, and commercial visitors.	Mobility hub supported by concentration of mixed-use development and live/work units
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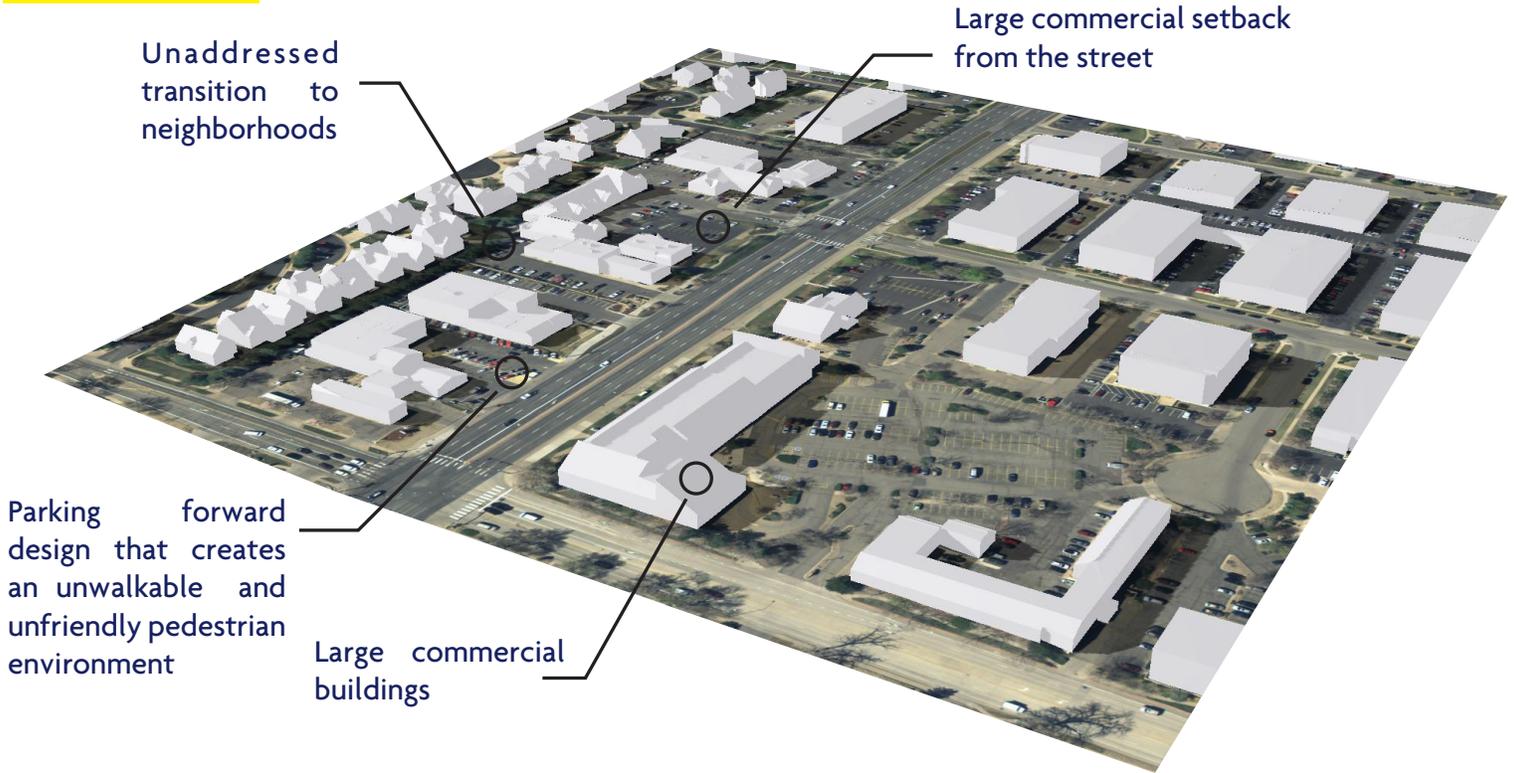
## Mix of Commercial w/residential (live/work, flats)

 **View 2** (see aerial diagram on the back for orientation) **DRAFT**

The visuals presented below are to aid in community dialogue. They will be updated through early next year to reflect community input and other feedback received from City Council, Planning Board, and boards and commissions.

**DRAFT**

**Before**



**AFTER**

**View 1**



- Office
- Live/Work
- Commercial/Retail
- Townhouse
- Row House
- Flats
- Existing Buildings

**View 2**

# Boulder Valley Regional Center

# DRAFT

## What can we expect from current policy?

### Uses

Most of the Boulder Valley Regional Center (BVRC) has a land use designation of Regional Business (RB), which the plan describes as places with “major shopping facilities, offices, financial institutions.” Although residential uses such as single-family and multi-family housing, duplexes and townhouses are allowed in this center, commercial development is more prevalent. Some housing exists along 30th, 26th, and Folsom Street and there is potential for more housing.

### Form/Height

Some zoning districts (Business – Regional 1) within the BVRC reflect a more suburban development standard, e.g. large setbacks and buildings that front parking. Development is restricted to three stories and a building height of 35’, except where height modifications are permitted (generally areas with adopted area plans). Design guidelines have been adopted for the BVRC which is primarily used in the site review process and minor modifications to a previously approved development. The threshold for a site review process in a Business – Regional 1 zone district (BR-1) is three acres, or 50,000 square feet of floor area. The aim of the BVRC Design Guidelines is to create a “high-quality center” by establishing design goals related to the following components of development: site layout, circulation, parking, useable open space, landscaping, streetscape, building design and signage.

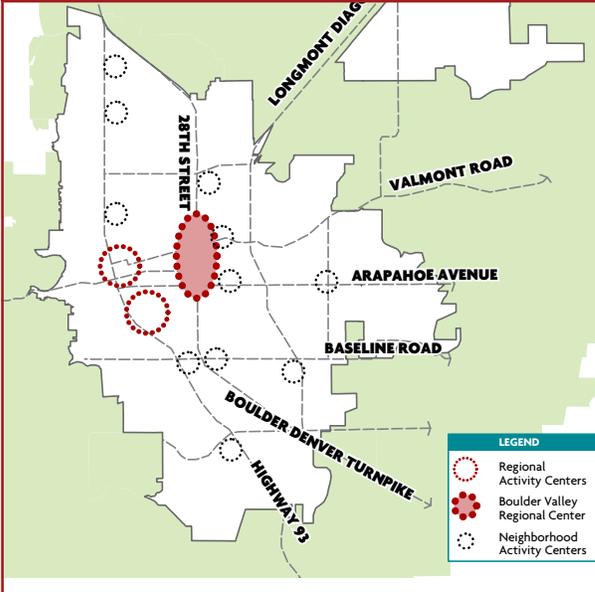
## Draft Principles

## Tell us what you think!

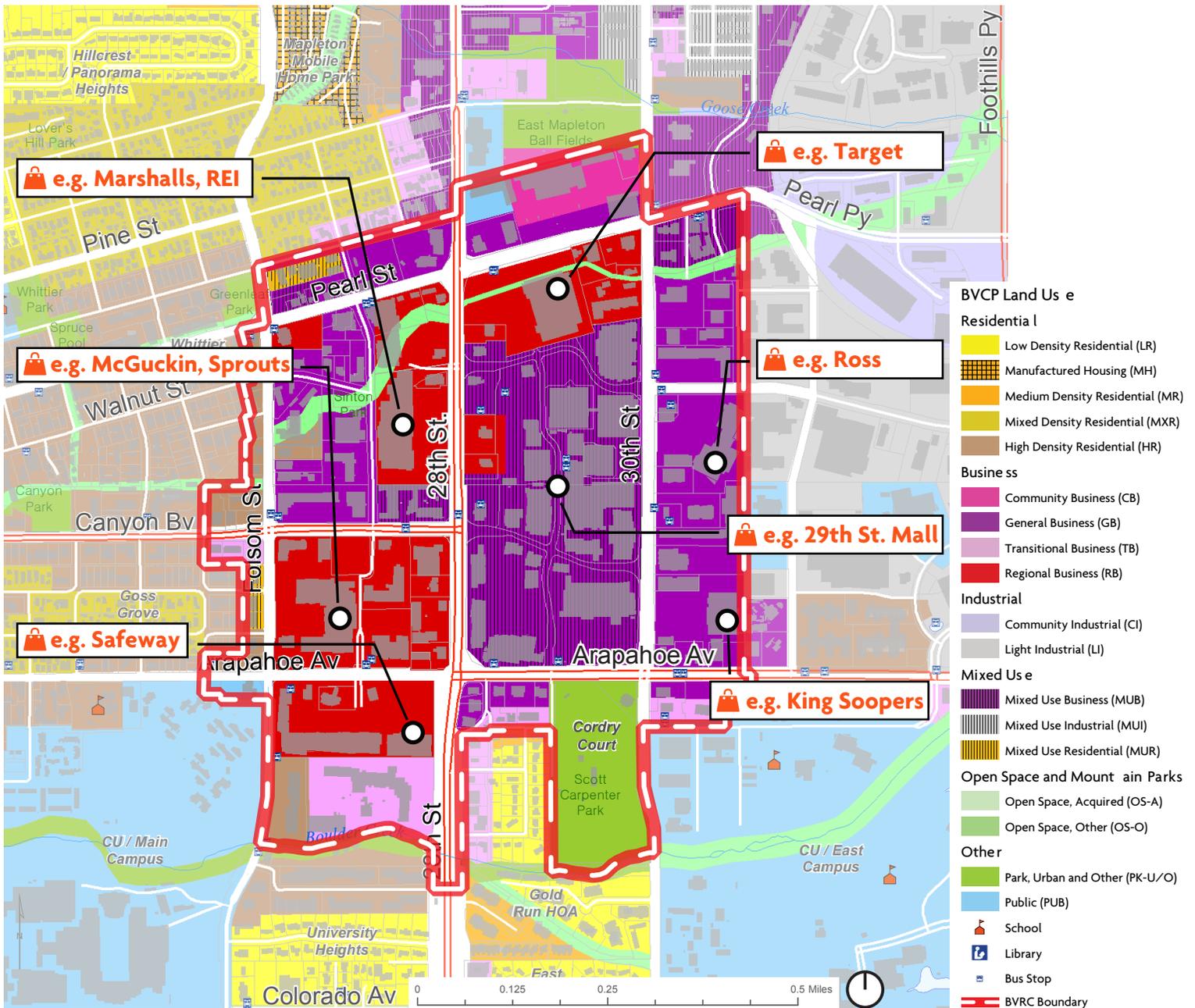
- 1. Mix uses to support local and regional needs.** Encourage a mix of uses and activities that serve a primarily commercial function (e.g. large format retail and shopping, restaurants, offices, hotels) to meet the retail needs of the community and Boulder Valley and sustain daytime and evening activity. Include cultural and recreational amenities.
- 2. Regional mobility hub.** Function as a regional multimodal hub by addressing ways to get around on foot, by bike, and by local transit service and offering amenities for users of all transportation modes by including sheltered seating, shared bicycles, bike cages and repair stations, among others. Improve access and connections to and from the regional mobility hub.
- 3. Meaningful public realm.** Create permeability in centers with a mix of semi-public and public spaces that are connected visually for intuitive navigation. Include civic and cultural uses as well as outdoor seating, shade trees and green spaces in the public spaces to create a unique identity and sense of place.
- 4. Architectural appeal.** Foster approachability and appeal of buildings through multiple entrances, four-sided design and attractive, well-designed architecture made of quality, long-lasting materials.
- 5. Comfort and safety.** Include human-scaled lighting, furnishings, signs and way-finding that feel welcoming, safe and comfortable for users of all ages and abilities. Provide unimpeded connections within the centers between parking, transit, retail and residential uses.
- 6. Parking not dominant.** Place parking behind and to the sides of buildings, in structures, or underground rather than in large street-facing lots. Encourage versatile parking structures that are designed with the flexibility to allow for different uses in the future.
- 7. Low-impact design.** Contribute toward sustainability goals with low-impact site design that incorporates green infrastructure (e.g. permeable materials and bioswales).

# Boulder Valley Regional Center

## EXISTING CHARACTERISTICS



- Serves as a regional commercial destination with goods and services to meet the needs of the community
- Located in Boulder's Crossroads area along the highways and arterials and is accessible by vehicle, transit, and for pedestrians and bicycles locally and regionally
- Classified as General, Regional, and Mixed Use Business on the Land Use Designation Map and generally has Business Regional (BR-1) Zoning with the highest level of commercial
- Contains the regional mall, some larger big box commercial uses, a multitude of other restaurants and retail, offices, and some residential and is over 200 acres in size



**BVCP Land Use**

Residential	
[Yellow]	Low Density Residential (LR)
[Grid]	Manufactured Housing (MH)
[Orange]	Medium Density Residential (MR)
[Light Green]	Mixed Density Residential (MXR)
[Brown]	High Density Residential (HR)
Business	
[Pink]	Community Business (CB)
[Purple]	General Business (GB)
[Light Purple]	Transitional Business (TB)
[Red]	Regional Business (RB)
Industrial	
[Light Blue]	Community Industrial (CI)
[Grey]	Light Industrial (LI)
Mixed Use	
[Dark Purple]	Mixed Use Business (MUB)
[Dark Blue]	Mixed Use Industrial (MUI)
[Yellow-Orange]	Mixed Use Residential (MUR)
Open Space and Mountain Parks	
[Light Green]	Open Space, Acquired (OS-A)
[Dark Green]	Open Space, Other (OS-O)
Other	
[Green]	Park, Urban and Other (PK-U/O)
[Blue]	Public (PUB)
[Red Bag]	School
[Blue Bag]	Library
[Blue Bus]	Bus Stop
[Red Line]	BVRC Boundary

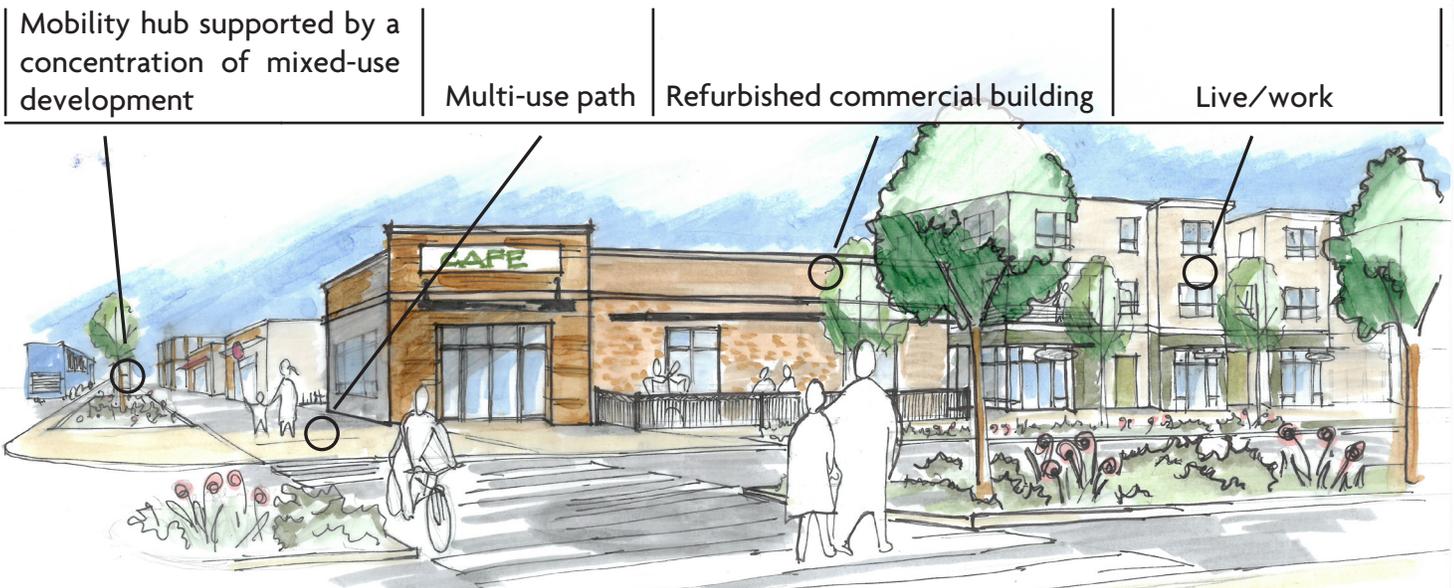
# What is your vision for the BVRC?

The visuals presented below are to aid in community dialogue. They will be updated through early next year to reflect community input and other feedback received from City Council, Planning Board, and boards and commissions.



## Medium Density Mixed-use Neighborhood

 **View 1** (see aerial diagram on the back for orientation) **DRAFT**



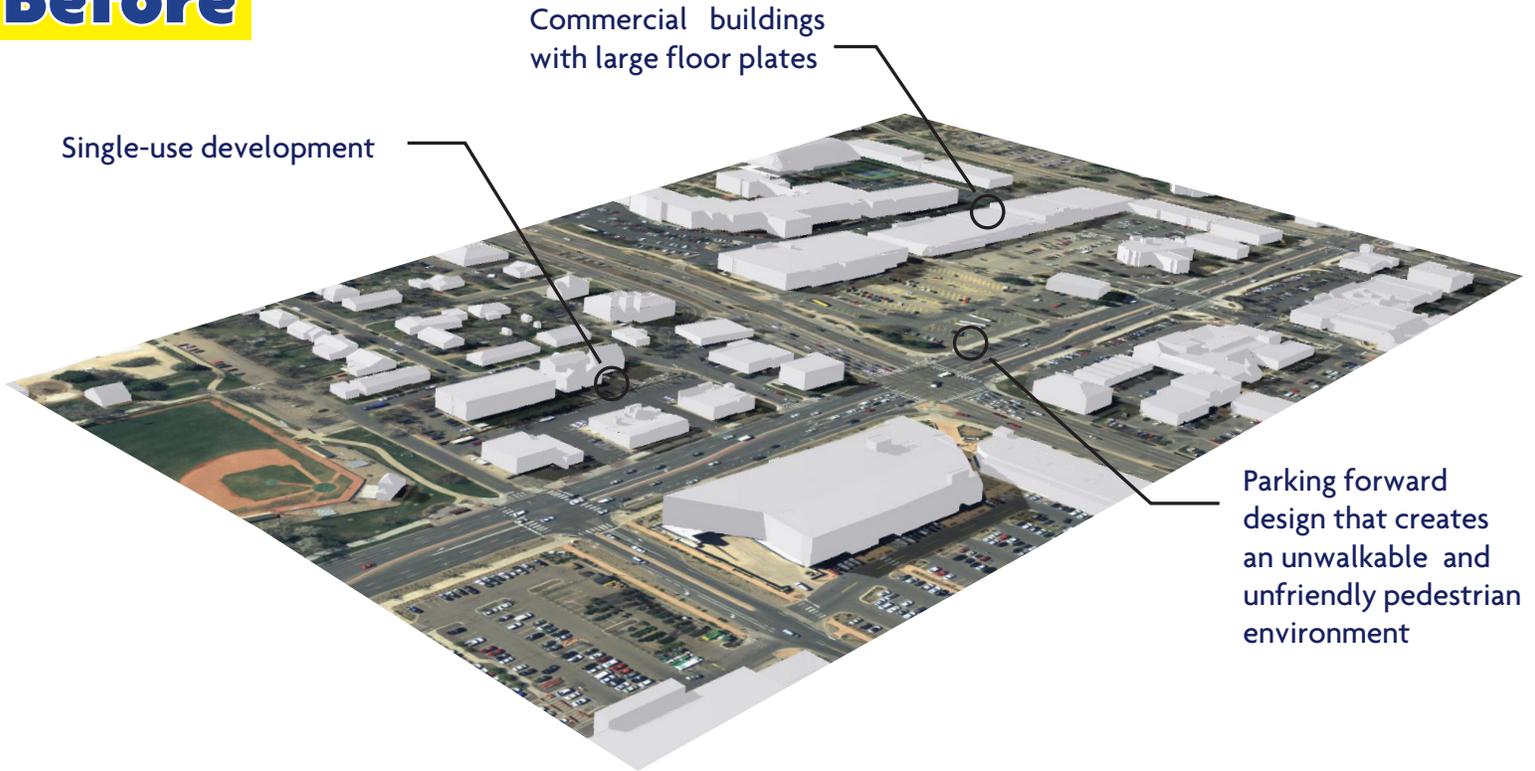
## Mixed-use Walkable Street

 **View 2** (see aerial diagram on the back for orientation) **DRAFT**

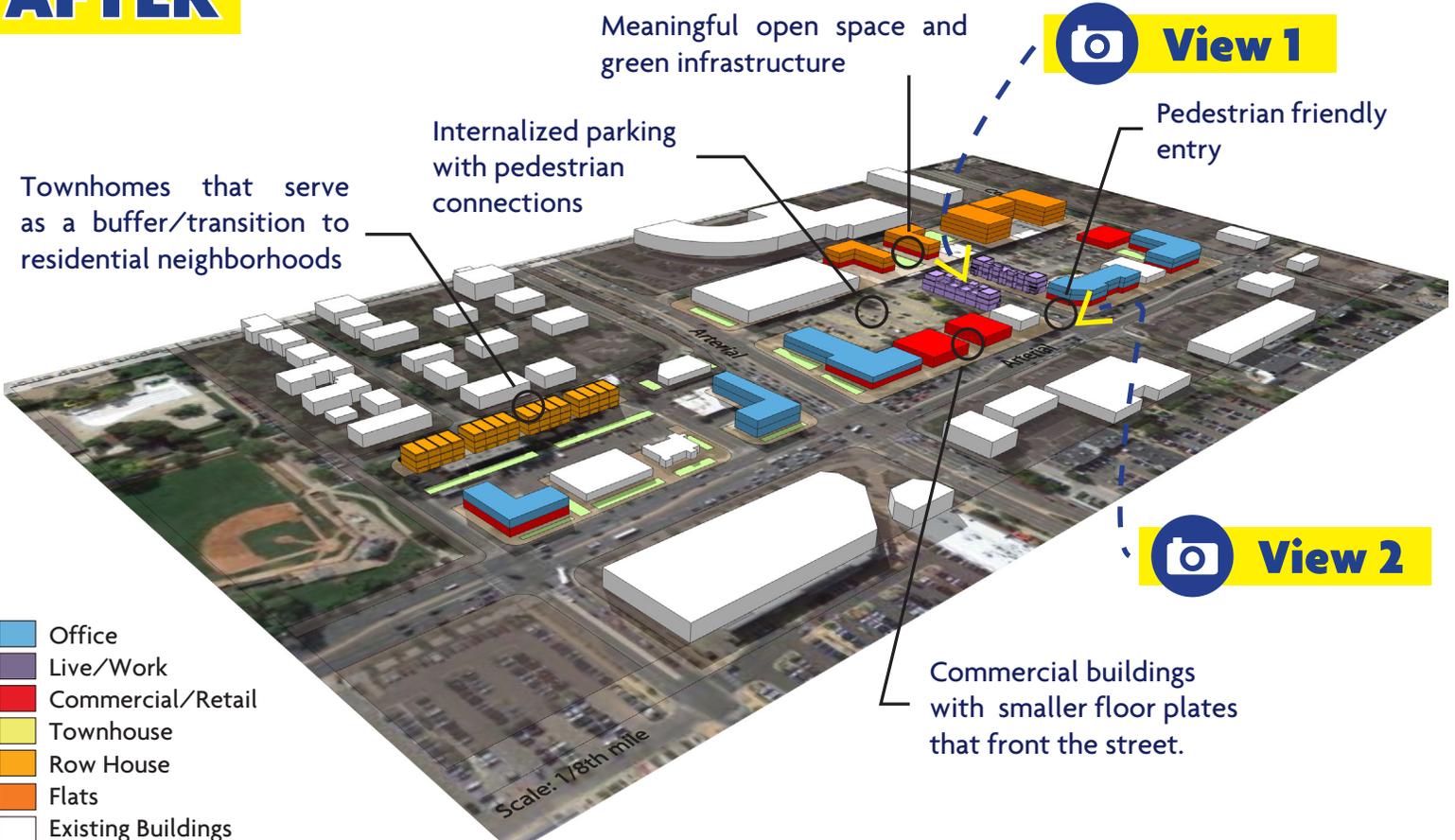
The visuals presented below are to aid in community dialogue. They will be updated through early next year to reflect community input and other feedback received from City Council, Planning Board, and boards and commissions.

**DRAFT**

**Before**



**AFTER**



# Industrial/Innovation

## Areas

# DRAFT

## What can we expect from current policy?

### Uses

The identified industrial areas have a land use designation of Light Industrial (LI), which the plan describes as “primarily research and development, light manufacturing, large-scale printing and publishing, electronics, or other intensive employment uses.” Residential uses are allowed under a use review and if at least 1/6 of the existing parcel is contiguous with residential zoning or development or city- or county-owned park or open space. Housing is uncommon in these districts. Retail services and restaurants, among other non-residential uses are conditionally-allowed with certain restrictions so that it serves the surrounding neighborhood without undermining the industrial uses in these areas.

### Form/Height

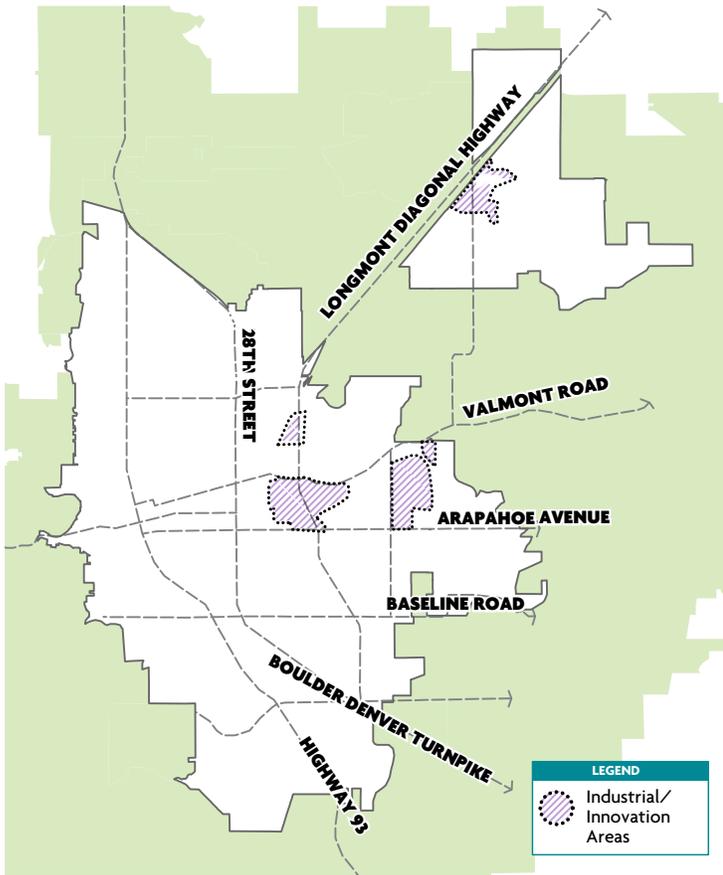
New development in these areas is primarily composed of light manufacturing and business parks and contains a high amount of parking relative to the new developments that are more centrally-located within the city. Development is restricted to three stories and a building height of 40' and potentially 45' if conditionally-permitted.

## Draft Principles

**Tell us what you think!**

- 1. Amenities and mix of uses.** Co-locate locally-serving retail (e.g. retail anchors such as grocery stores and personal services such as hair salons) and possibly housing with large employers in these employment-rich centers.
- 2. Preservation and reuse.** Encourage retention and renovation of existing buildings and infill on parking lots.
- 3. Transportation connections.** Improve the multimodal system with convenient and pleasant ways to get around on foot, by bike and with local connections to regional transit.
- 4. Meaningful public realm.** Create permeability in centers with a mix of semi-public and public spaces that are connected visually for intuitive navigation. Include civic and cultural uses as well as outdoor seating, shade trees and green spaces in the public spaces to create a unique identity and sense of place.
- 5. Parking not dominant.** Keep parking behind and to the sides of buildings or in structures rather than in large street-facing lots. Encourage parking management strategies, such as shared parking, and versatile parking structures that are designed with the flexibility to allow for different uses in the future.
- 6. Low-impact design.** Contribute toward sustainability goals with low-impact site design that incorporates green infrastructure (e.g. permeable materials and bioswales).

# Industrial/Innovation Areas

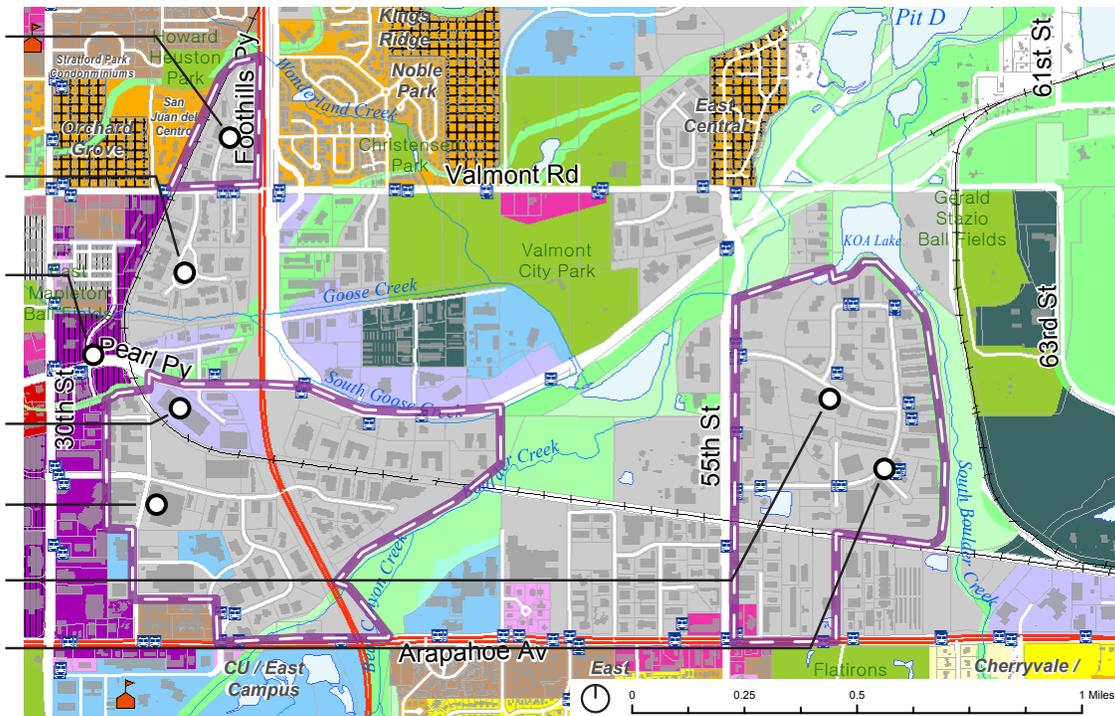


# EXISTING CHARACTERISTICS

- Located in East Boulder, along Arapahoe between 33rd and South Boulder Creek, and in Gunbarrel along the Diagonal
- Classified as Light Industrial on the Land Use Designation Map and has Industrial General (IG) Zoning designed for “research and development, light manufacturing, larger scale printing and publishing, electronics, or other intensive employment uses” and “industrial parks” according to the 2010 plan
- Accessible by vehicles but are not particularly accessible by transit
- Strong regional connection to the city’s greenway system, particularly in East Boulder, making the area accessible for bicycles and pedestrians
- More auto-centric and less walkable/ bikeable within these areas due to the disconnected street grid

# East Boulder Industrial Area

- Center Green
- Boulder Beer
- Boulder Junction
- Sanitas Brewing
- Rudi's
- Flat Iron Business Park
- Upslope Brewing



**BVCP Land Use**

**Residential**

- Very Low Density Residential (VLR)
- Low Density Residential (LR)
- Manufactured Housing (MH)
- Medium Density Residential (MR)
- High Density Residential (HR)

**Business**

- Community Business (CB)
- General Business (GB)
- Service Commercial (SC)
- Transitional Business (TB)
- Regional Business (RB)

**Industrial**

- Community Industrial (CI)
- General Industrial (GI)
- Light Industrial (LI)

**Mixed Use**

- Mixed Use Business (MUB)
- Mixed Use Industrial (MUI)

**Open Space and Mountain Parks**

- Open Space, Acquired (OS-A)
- Open Space, Development Rights (OS-DR)
- Open Space, Other (OS-O)

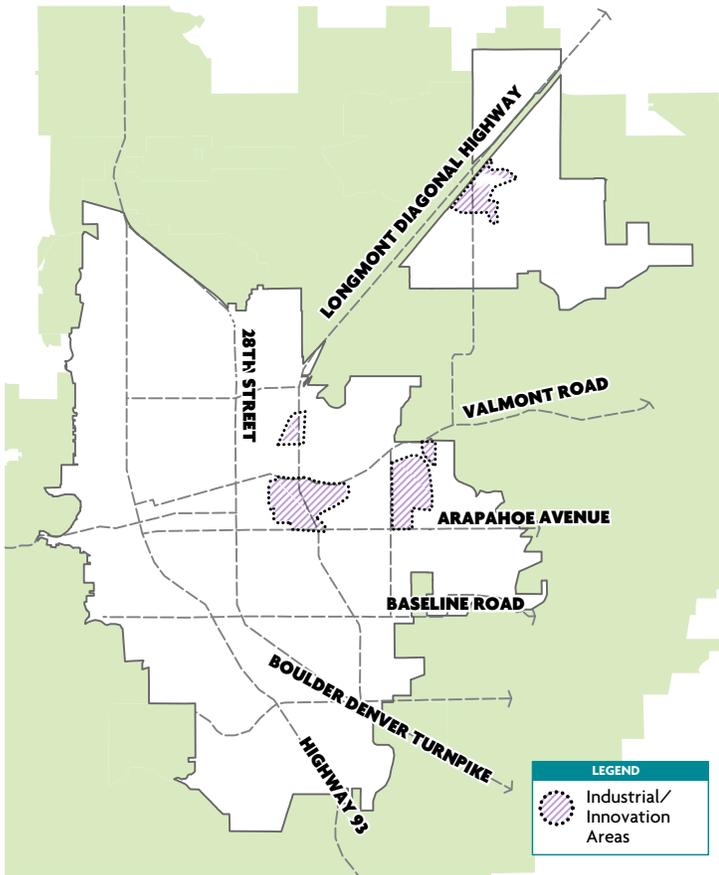
**Other**

- Park, Urban and Other (PK-U/O)
- Public (PUB)
- Environmental Preservation (EP)

**Other Landmarks**

- School
- Library
- Bus Stop
- Industrial General Boundary
- Railroads

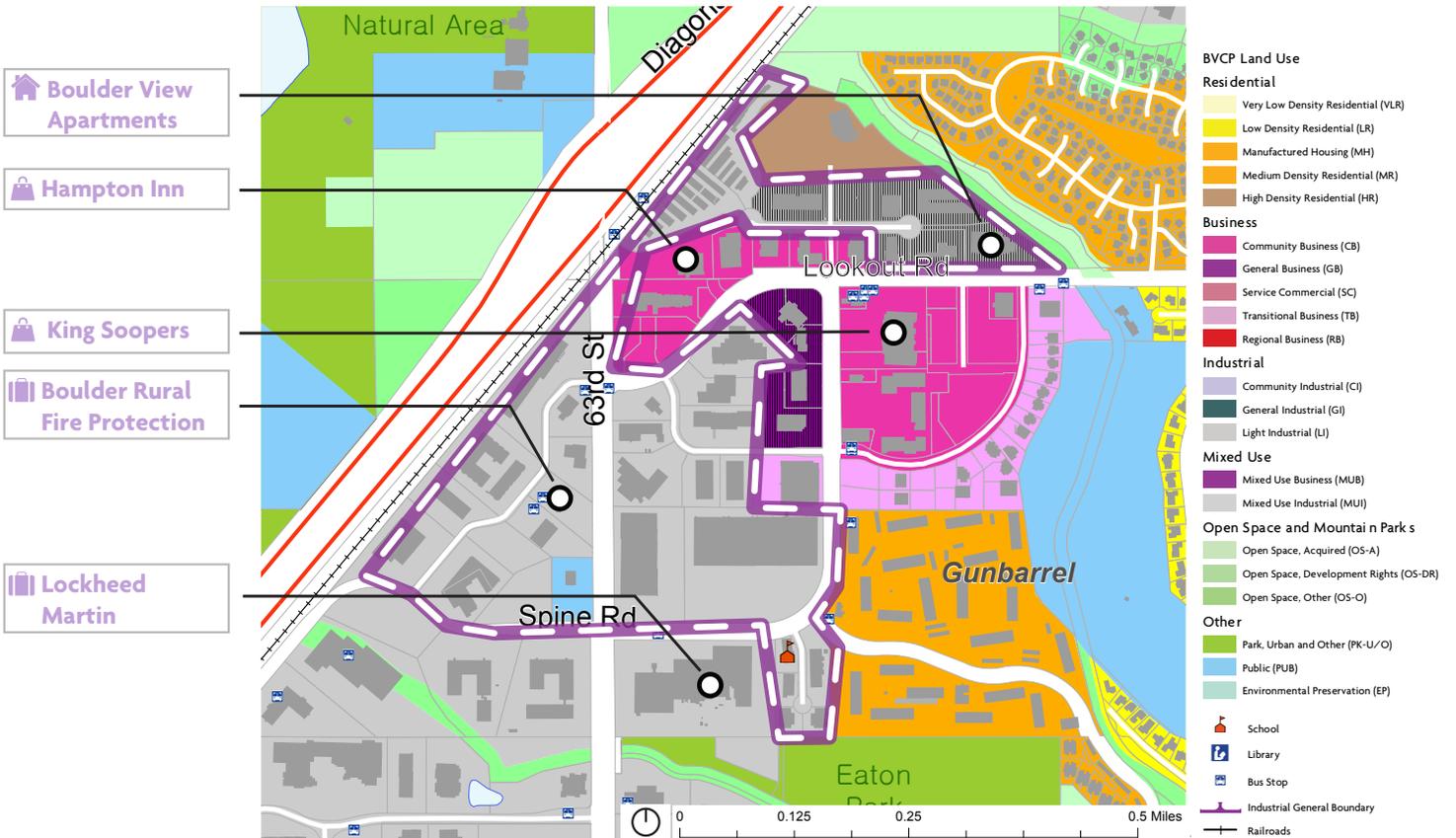
# Industrial/Innovation Areas



# EXISTING CHARACTERISTICS

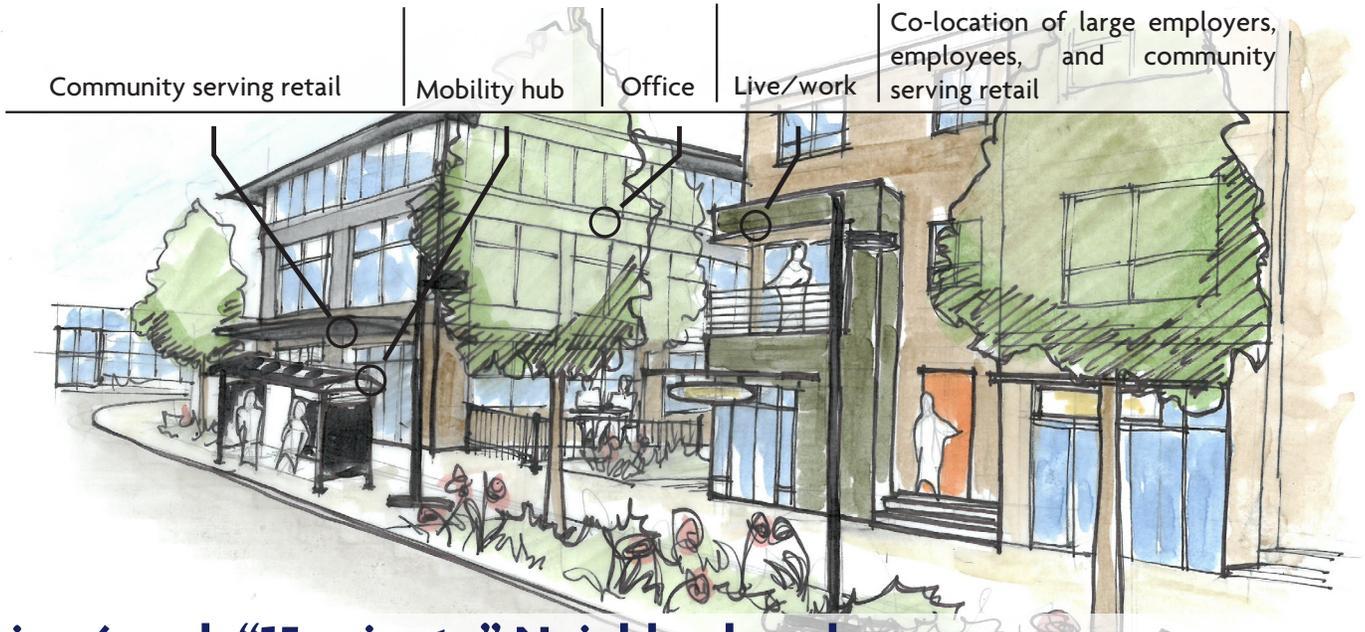
- Located in East Boulder, along Arapahoe between 33rd and South Boulder Creek, and in Gunbarrel along the Diagonal
- Classified as Light Industrial on the Land Use Designation Map and has Industrial General (IG) Zoning designed for “research and development, light manufacturing, larger scale printing and publishing, electronics, or other intensive employment uses” and “industrial parks” according to the 2010 plan
- Accessible by vehicles but are not particularly accessible by transit
- Strong regional connection to the city’s greenway system, particularly in East Boulder, making the area accessible for bicycles and pedestrians
- More auto-centric and less walkable/ bikeable within these areas due to the disconnected street grid

# Gunbarrel Industrial Area



# What is your vision for industrial/innovation areas?

The visuals presented below are to aid in community dialogue. They will be updated through early next year to reflect community input and other feedback received from City Council, Planning Board, and boards and commissions.



## Live/work “15-minute” Neighborhood

 **View 1** (see aerial diagram on the back for orientation) **DRAFT**



## Friendly Walkable Neighborhood composed of Medium Density Residential

 **View 2** (see aerial diagram on the back for orientation) **DRAFT**

The visuals presented below are to aid in community dialogue. They will be updated through early next year to reflect community input and other feedback received from City Council, Planning Board, and boards and commissions.

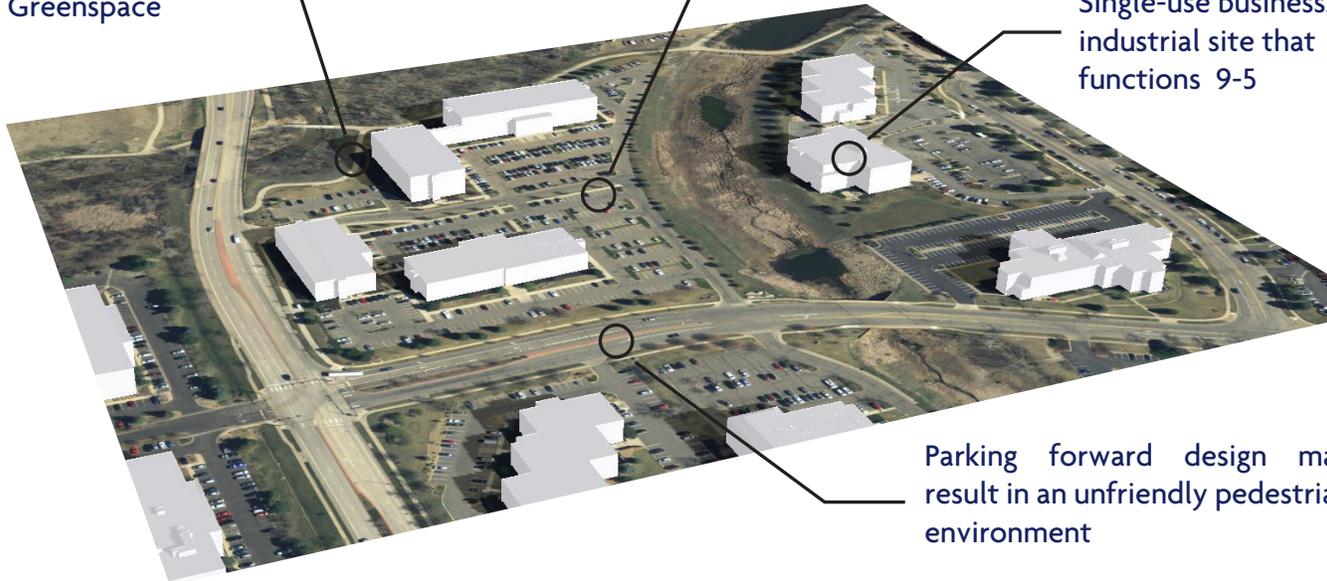
**DRAFT**

**Before**

Access to existing Greenways and Greenspace

Heavily dominated by parking and impervious surfaces

Single-use business/ industrial site that functions 9-5



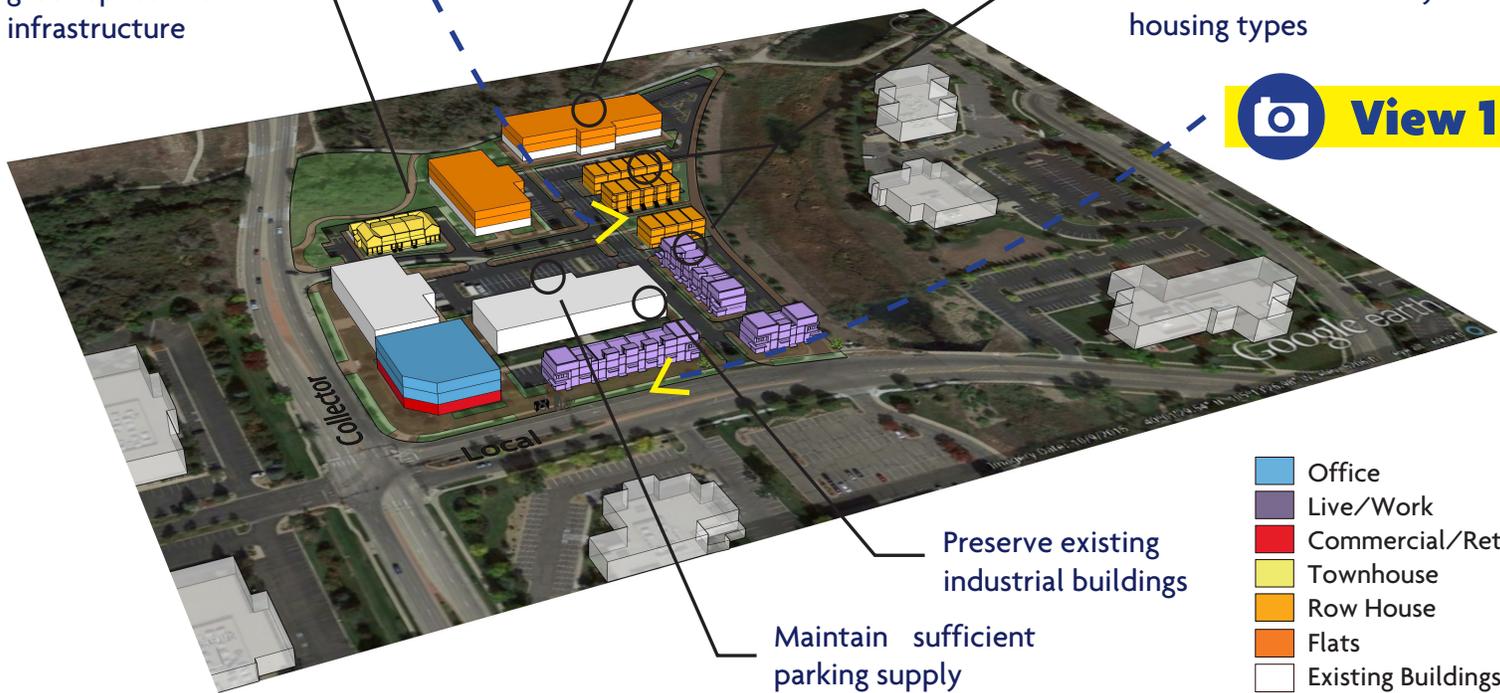
**AFTER**

**View 2**

Create useful, connected green space and infrastructure

Retrofit of an existing industrial building

Collective mix of uses and services with a diversity of housing types



**View 1**

- Office
- Live/Work
- Commercial/Retail
- Townhouse
- Row House
- Flats
- Existing Buildings

**MATRIX OF POSSIBLE TRIGGERS FOR “ENHANCED COMMUNITY BENEFIT” AND TYPES OF BENEFIT**

	Permanent Affordable Housing beyond IH (Overall, Senior or otherwise)	Market Rate Affordable Housing/ Diversity	Moderate/ Middle-Income Housing	“Affordable Business” (e.g., incubator, artist, community industrial and other) <sup>1</sup>	Dedicated park or open space land or facilities	Meeting critical social needs (group homes, homeless, cultural diversity, etc.)	Extension/ Improvement of Paths Beyond Typical Development Requirements <sup>2</sup>	Environmental protection /restoration <sup>3</sup>	School, community space, arts space, nonprofit, public art, or other public facilities <sup>4</sup>	Urban Design <sup>5</sup>	Enhanced Mixed Use <sup>6</sup>	Historic Preservation /Restoration	Enhanced Energy/GHG	Enhanced Transportation <sup>7</sup>	Economic Development
Increases in Intensity: Units, FAR, etc.	Green	Green	Green	Green	Yellow	Yellow	Red	Yellow	Yellow	Red	Red	Yellow	Yellow	Red	Red
Annexation	Green	Green	Green	Green	Yellow	Yellow	Red	Yellow	Yellow	Red	Red	Yellow	Yellow	Red	Red
Height Increases Unless Increase in Intensity	Red	Red	Red	Red	Red	Red	Red	Red	Red	NOTE 1	Red	Red	Red	Red	Red
Parking Reduction	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Enhanced TDM	Red
Setbacks Unless Increase in Intensity	Red	Red	Red	Red	Red	Red	Red	Red	Red	NOTE 2	Red	Red	Red	Red	Red

**Color code:**

Green: Generally mandatory

Yellow: May qualify under defined circumstances

Red: Not required as condition for relevant trigger, although may be required otherwise in Site Review, permitting, etc.

NOTE 1: Improve height criteria under site review to improve design and impact criteria

NOTE 2:

<sup>1</sup> Is this the best way to achieve this? Use table, zoning, etc.?

<sup>2</sup> Where do we establish a threshold?

<sup>3</sup> Where do we establish a threshold?

<sup>4</sup> How do you guarantee this? Can the incentives be set up right?

<sup>5</sup> Is this a basic requirement? How is it enhanced? How is this managed?

<sup>6</sup> How is this defined?

<sup>7</sup> Relationship to TDM? Relationship to Transportation Master Plan? Relationship to energy/GHG category?

## 7. Housing

Draft – Aug. 19, 2016, updated Dec. 9, 2016

*Note: This is one of the plan chapters. Policies related to neighborhoods, design and character appear in the Built Environment chapter under a separate cover.*

*As noted throughout, these draft policy amendments contain some key policy choices.*

To a large extent, ~~the~~ range of available housing opportunities in a community helps to define what the community is and what it has the potential to be. The social, economic and environmental well-being of the community is enhanced when individuals and families are retained, workforce housing is available, and ~~existing~~ residents with changing or special housing needs are served. The Boulder Valley Comprehensive Plan, which identifies desired locations, densities and types of housing planned for Boulder, is an integral link in the community's housing strategy. Through a variety of policies, programs and regulations, the type, number, and affordability of new and existing housing units can be influenced, and programs and assistance made available to those who have limited resources or special needs.

The high cost of local housing results in many households paying a disproportionate amount of their income for housing or moving farther from their work in order to find housing that they can afford. Households who are burdened by housing costs or by the combined costs of housing and transportation have less money available for other necessities and may find it difficult to actively participate in the community, ~~which~~. This can lead to a more transient and less stable workforce, additional demands on supportive human services and to an exclusion of key members of our society from the civic infrastructure.

Emerging trends facing the community include:

- ~~Growth in the~~ An aging senior population;
- Loss of middle income households;
- The addition of 5,000 university students by 2030 CU's anticipated continued student growth;
- The growing difficulty of providing affordable housing attractive to families with children in a land-constrained community; and
- The need to evaluate regulations to creatively accommodate an expanding variety of household types, including multi-generational households.

Therefore, the policies in this section support the following city and county goals related to housing:

- Local Support for Community Housing Needs
- Preserve and Enhance Housing Choices
- Advance and Sustain Diversity
- Integrate Growth and Community Housing Goals

*Note: Changes to the Intro reflect work done through the Housing Boulder project and the studies conducted by BBC Research and Consulting. They also provide additional clarification on the impacts of cost burdened households. Also, language is updated throughout to reflect current terminology related to how the city implements the affordable housing program to include middle income households (e.g., policies 7.01, 7.07, 7.11).*

Comments received to date:

- put more emphasis on current housing challenges using long term trends  
- add language about the importance of diverse housing types and price ranges in terms of retaining socio-economic diversity, creating an inclusive community, and promoting cultural richness.

## **Local Support for Community Housing Needs**

### **7.01 Local Solutions to Affordable Housing**

The city and county will employ local regulations, policies, and programs to meet the housing needs of ~~their~~ low ~~and~~, moderate and middle income households ~~and workforce~~. Appropriate federal, state and local programs and resources will be used locally and in collaboration with other jurisdictions. The city recognizes that affordable housing provides a significant community benefit and will continually monitor and evaluate its policies, programs and regulations to further the city's affordable housing goals.

### **7.02 Permanently Affordable Housing Goals**

The city will increase the proportion of ~~permanently affordable~~ housing units permanently affordable to low and moderate income households to an overall goal of at least ten percent of the total ~~existing~~ housing stock and increase the proportion of market-rate housing and housing units permanently affordable to middle income households as described in the Middle Income Housing Strategy. These goals will be achieved through regulations, financial subsidies and other means. City resources will also be directed toward maintaining existing permanently affordable housing units and increasing the stock of permanent affordable housing through preservation of existing housing within the city. ~~securing replacements for lost low and very low income units~~

*Note: This language includes a new middle income housing goal (as directed by the 2016 Middle Income Housing Strategy) that provides market rate affordable housing as well as deed restricted permanently affordable units for middle income households ([www.housingboulder.net](http://www.housingboulder.net)).*

Comments received to date:

-provide a no net loss of affordable housing policy

### **7.03 Populations with Special Needs**

The city and county will encourage development of housing for populations with special needs, including residences for people with disabilities, populations requiring group homes or other specialized facilities, and other vulnerable populations. ~~where appropriate~~. The location of such housing should be in proximity to shopping, medical services, schools, entertainment and public transportation services and transportation options appropriate for the population being housed. ~~Every e~~Efforts will be made to avoid concentration of these homes in one area.

*Note: This language is aimed at continuing the policy to avoid overconcentration in one part of the community and ensuring that housing is near services and transportation. The language replaces a specific list of amenities with a more general description.*

### **7.04 Strengthening Community Housing Partnerships**

The city will create and preserve partnerships dedicated to the community's housing needs by supporting ~~private and~~ nonprofit agencies and private entities that create and maintain permanently affordable housing in the community, and fostering nonprofit and private sector partnerships. The city recognizes the role of the university in the housing market and will

encourage the University of Colorado and other post-secondary institutions in their efforts to increase the amount of on-campus housing.

### **7.05 Strengthening Regional Housing Cooperation**

Affordable housing is a regional issue that requires the city and county to work with other public and private partners to develop regional housing solutions. The city and the county will work to enhance regional cooperation on housing issues to address regional housing needs and encourage the creation of housing in proximity to regional transit routes. Such efforts include the Regional HOME Consortium and the Ten Year Plan to Address Homelessness.

*Note: New language to better recognize the regional nature of the issue and work being done with regional partners to address regional affordability.*

### **Preserve and Enhance Housing Choices**

#### **7.06 Mixture of Housing Types**

The city and county, through their land use regulations and housing policies will encourage the private sector to provide and maintain a mixture of housing types with varied prices, sizes and densities, to meet the housing needs of the full range of the Boulder Valley population. The city will encourage developers to provide a mix of housing types within each development.

*Note: The mix and diversity of housing has been an existing policy, but a lot of developments are not yielding a mix. This language strengthens and defines the intent.*

#### **7.07 Preserve Existing Housing Stock**

The city and county, recognizing the value of their existing housing stock, will encourage its preservation and rehabilitation through its land use policies and regulations. Special efforts will be made to preserve and rehabilitate existing housing serving low, ~~and~~ moderate, and middle income ~~individuals and~~ households.

#### **7.08 Preservation and Development of Manufactured Housing**

Recognizing the importance of manufactured housing as an option for many households, the city and county will encourage the preservation of existing mobile home parks and the development of new manufactured home parks, including increasing opportunities for resident-owned parks. ~~Whenever~~ If an existing mobile home park is found in a hazardous area to have health or safety issues, ~~every reasonable~~ efforts will be made to reduce or eliminate the ~~hazard issues~~, when feasible, or to help mitigate for the loss of housing through relocation of affected households.

*Note: Clarifies that hazards are specific to health and safety issues.*

### **Advance and Sustain Diversity**

#### **7.09 Housing for a Full Range of Households**

The city and county will encourage preservation and development of housing attractive to current and future households, persons at all stages of life, and to a variety of

household [incomes and](#) configurations. This includes singles, couples, families with children and other dependents, extended families, non-traditional households and seniors.

*Note: Language is slightly modified to reflect goals for low, moderate, and middle incomes.*

### **7.10 Balancing Housing Supply with Employment Base**

Expansion of the Boulder Valley housing supply should reflect to the extent possible current [and employer locations](#), projected [employer workforce housing needs, industrial/commercial development sites](#) ~~the resulting variety of~~ salary ranges, and the demand such developments bring for housing employees. Key considerations include housing type, mix, and affordability. The city will explore policies and programs to increase housing for Boulder workers [and their families](#) by fostering mixed-use and multifamily development proximate to transit, employment or services, and by considering the conversion of commercial and industrial zoned or designated land to residential use.

*Note: Language slightly refined to address jobs:housing balance workforce housing needs and balance of housing supply with employment base.*

*Comments received to date:*

*-Paragraph is redundant and implies a growth on growth approach to growth management.*

## ***Growth and Community Housing Goals***

### **7.11 Incorporate Mix of Housing in Future Service Area**

In considering future expansion of the Service Area, the city will identify possible sites for housing that serves low ~~and~~, moderate [and middle](#) income households. Designation of land uses in new growth areas will provide for a mixture of housing types, [sizes](#) and densities ~~in order to~~ meet the diversity of housing needs.

*Note: Provides consistent language on the income groups the city serves through the various housing programs. Includes size as an important part of providing a mixture of housing to meet housing needs.*

### **7.12 Conversion of Residential Uses in the Community**

The city will evaluate and revise its regulations to reduce the opportunities for the conversion of residential uses to non-residential uses or to require mitigation for residential units lost through the redevelopment of existing housing or the conversion of a residential use to non-residential uses.

*Comments received to date:*

*-needs to address loss of affordable units to high priced units.*

### **7.13 Integration of Permanently Affordable Housing**

Permanently affordable housing, whether publicly, privately or jointly developed and financed [should be dispersed throughout the community and whenever possible affordable units should be provided on the site of and integrated into all new housing developments.](#) ~~will be designed as to be compatible, dispersed, and integrated with housing throughout the community.~~

*Note: Clarifies that affordable housing should be dispersed throughout the community, integrated into all new housing developments, and provided on site as part of new development preferably over off site - consistent with the Federal Fair Housing Act.*

### **Potential New Policy: Market Affordability**

The City will encourage and support efforts to provide market-rate housing priced to be more affordable to middle income families. The city will identify opportunities to eliminate regulatory barriers in building more moderately sized homes with a priority on homeownership.

**Key Policy Choice:** *Should the city state a clear priority for market rate solutions to providing more middle income housing options, including identifying and eliminating regulations that incentivize larger and more expensive units within new developments?*

*Comments received to date:*

*-skepticism that market rate units will remain affordable over time.*

### **Potential New Policy: Special Consideration for Affordable Housing Projects**

**Request:** *A coalition of affordable housing providers (the Affordable Housing Network, the Human Services Alliance, Boulder Housing Partners and the Boulder County Housing Authority) proposes a new policy that explicitly recognizes affordable housing as a community benefit that should receive special consideration, including:*

- regulatory changes that unlock more “diverse housing” opportunities.*
- priority review to meet funding timelines and improve overall project feasibility.*
- clear guidance on areas open to community input.*

*Language was provided to Planning Board under separate cover from the Coalition.*

*Feedback received to date:*

*-they should follow the same rules as all other developers*

*-neighborhood input should not be limited*

## Attachment F-1: Summary of proposed changes to Natural Environment Section

### 3. Natural Environment– Summary of Proposed Changes

*Draft – Dec. 5, 2016*

This section focuses on policies related to the natural environment including incorporation of ecological systems into planning, adaptive management approach, protection of natural lands, management of wildlife, water conservation, flood management, and air quality. The changes to this chapter reflect updated plans and work since the 2010 Plan and strengthening policies related to existing plans including:

- Ongoing updates to city’s Integrated Pest Management policy, Urban Forest Strategic Plan, and Climate Commitment and the county’s policy on Genetically Modified Organisms
- Boulder’s Resilience Strategy (2016)
- The Bee Safe Resolution (2015) banning the use of neonicotinoids on city property and a Bear Protection Ordinance to secure waste from bears (2014)
- The county’s resolution to reduce and eliminate pesticide use to protect both people and pollinators (2015).
- Environmental Resources Element of the Boulder County Comprehensive Plan (2016)
- Boulder County analysis of local oil and gas regulations, and policy updates to the Fourmile Canyon Creek Watershed Master Plan (2015), Boulder Creek Watershed Master Plan (Urban Drainage and Flood Control District, 2015), and Consortium of Cities Water Stewardship Task Force Final Report (2013).
- OSMP Grasslands Ecosystem Management Plan, Forest Ecosystem Plan, Visitor Management Plan.

Additional and extensive changes since the Aug. 24 draft reflect input from the community and county staff with additional review and input by city staff from open space, planning, forestry, and utilities. ***A further round of minor editing to reduce redundancies will occur as necessary.*** Other changes are noted below.

#### **Introduction/Preamble:**

- This section will remain as a stand-alone chapter rather than be combined with others as initially proposed.
- Open Space Board of Trustees (OSBT) in particular asked for clarification about how this section of policies apply to the urban versus wildlands area and to OSMP lands versus other lands. A lot of the added preamble language is intended to provide such clarification.

- A group of community members with an active role in open space management, environmental issues, and soil health collaborated to provide comments on this chapter. They provided a comprehensive mark up of this section and suggested a number of minor text edits to align the language as well as new larger ideas. The group suggested describing the ecosystem continuum (which may later be expressed as a graphic), addressing the overall planning and management strategy that incorporates an understanding of natural ecosystems and the four overall strategies for protecting the natural environment.
- Added “recreation, relaxation, and connection with nature” as requested.

### **Policy 3.01 Incorporating Ecological Systems into Planning**

- Added “Bioregions,” at the request of community members.

### **Policy 3.02 Adaptive Management Approach**

- Expanded the definition of adaptive management, at the request of community members.
- While it was requested to add precautionary language to this policy, the technical detail is too high for the BVPC. OSMP suggested that if the precautionary principle be added that it include language to consider “least practically restrictive.” Since this approach is still being discussed in OSMP, the issues should be addressed in the OSMP master plan.

### **Policy 3.03 Native Ecosystems**

- Modifies the title from “Natural” to “Native” to be consistent with policy language.
- Adds reference to Habitat Conservation Areas and references OSMP plans.
- Adds features identified in the Boulder County Comprehensive Plan Environmental Resources Element at the request of the county.

### **Policy 3.04 Ecosystem Connections and Buffers**

- Removes “Undeveloped” lands so the policy is more universally applicable to “preservation” or “restoration” of any lands.
- Adds emphasis on buffers and corridors and value for natural movement of organisms including wildlife generally, as requested by community members including in and along the edges of the urban environment. Additional language recommended by county and city staff to clarify that these areas may need further planning to identify priorities for future action.

*(Note: Suggest cross referencing and adding new policy language to the “Built Environment chapter” to address conservation and design of open space connections and buffers in urban areas, recognizing that urban lands can also be important for supporting biodiversity and maintaining wildlife habitat.)*

### **Policy 3.05 Maintain and Restore Ecological Processes and Natural Disturbances**

- Adds “natural disturbances” to title, as disturbances (i.e., fire, flood) are referenced in the policy.
- Includes minor edit: “mimicked” changed to “replicated”.

### **Policy 3.06 Wetland and Riparian Protection**

- Adds language about wetlands’ value to reducing the impacts of flooding, and adding “education” to the public about the value of wetlands

### **Policy 3.07 Invasive Species Management**

- New language reflects input from community members, OSMP staff, the city’s IPM coordinator, and the county. It clarifies interagency cooperation and partnerships, and reflects that details are available in relevant city and county plans.
- Adds a new section to be consistent with city IPM policy to explain that management of native and non-local native species will be based on weighing impacts versus benefits and account for changing species composition due to climate change and other human impacts based on best available science. This reflects current practice in OSMP and city.

### **Policy 3.08 Public Access to Public Lands – no change**

#### **New Policy Climate Change Preparation and Adaption and Resilience**

- Included language to be consistent with city’s Climate Commitment document, resilience strategy and OSMP management practices, and modified it somewhat to reflect public input regarding a science-based approach to newly adapting plants and wildlife.

### **Policy 3.09 Management of Wildlife-Human Conflicts**

- Added language about wildland-urban interface context.
- Added the “county” at the request of county staff.

### **Policy 3.10 Urban Environmental Quality**

- Deleted reference to “agriculture” in this policy that is intended for urban areas, as requested by county staff.
- Changed language to say that the quality of the urban environment will be “maintained” and may improve instead of “will not worsen,” and be improved at the request of community members. Saying areas will improve would be a new policy direction.

### **Policy 3.11 Urban Forests**

- Adds language about important role of the urban canopy in ameliorating effects of climate change and management policies at request of community members.

### **Policy 3.12 Water Conservation**

- Adds reference to “efficient water usage rather than xeriscape, as requested by community members. (Note: xeriscape could have damaging consequences for wetlands and trees.)

### **Policy 3.13 Integrated Pest Management**

- Changed language to be consistent with the city’s Integrated Pest Management (IPM) policy and reflects best practices to integrate IPM into an ecological approach to land management.
- County approach is a little different as noted in the language, and staff have noted concerns about being unable to “discourage” the use of pesticides given requirements to follow state weed law and county agricultural program. The County Planning Commission also suggested stronger language.

### **New Policy: Soil Carbon Sequestration**

- Adds new language to recognize soil sequestration as having potential benefits. It reflects input from community members and has been modified with suggestions from OSMP staff. This policy cross references Sec. 3, Agriculture and Food, where soil health and carbon sequestration could apply and be better suited to tilled agricultural lands.

### **Policy 3.14 Unique Geological Features**

- Adds reference to “public land management” as a means of protection.

### **Policy 3.15 Mineral Deposits**

- Clarifies that the intent of the policy is to balance relevant community values with the use of mineral deposits.
- Notes that the use of non-renewable resources will be considered only when conservation and recycling is not a feasible alternative and impacts of resource use will be balanced with other community values and priorities as suggested by community and staff.

### **Policy 3.16 Hazardous Areas – no changes**

### **Policy 3.17 Erosive Slopes and Hillside Protection**

- Added to the title: “Erosive Slopes”.

- Added a clause about the risk of earth movement and development of trails and the base of hillsides at the request of community members.

#### **Policy 3.18 Wildfire Protection and Management**

- Adds context statement about the likely warming and drying of the climate making wildfire increasingly common.

#### **Policy 3.19 Preservation of Floodplains – no changes**

#### **Policy 3.20 Flood Management**

- Adds recognition about multiple hazards relationship and increased potential for flooding.

#### **Policy 3.21 Non-Structural Approach – no change**

#### **Policy 3.22 Protection of High Hazard Areas**

- Suggested adding reference to the county by community members, however the county does not reference nor use the same designation for High Hazard.

#### **Policy 3.23 Larger Flooding Events**

- Adds “county”
- Critical facilities are a specific term used by the city. That is clarified.

#### **Policy 3.24 Protection of Water Quality**

- Reflects broader Boulder Valley watersheds rather than focusing exclusively on Boulder Creek, per county staff suggestion.

#### **Policy 3.25 Water Resource Planning and Acquisition**

- New language suggested by water utilities to address requests about changing language regarding acquiring “additional municipal water supply”. OSMP notes that the existing policy guidance of acquiring water resources strategically is supported by City Charter.

#### **Policy 3.26 Drinking Water – no change**

#### **Policy 3.27 In-Stream Flow Program**

- “Minimum” Flow Program changed to “In-stream” in title to be consistent with policy language.

### **Policy 3.28 Surface and Groundwater**

- Adds “drilling” and “mining” to list of potential impacts to resources.

*Note: Groundwater is a complex issue that may need future discussion. The current policy (3.24, and 3.28) is to protect groundwater resources and prevent dewatering. However, high water tables in new development can be seen as a challenge, and there has been some discussion of limiting subsurface structures, but such an approach needs further study. This policy as currently written is consistent with utility plans.*

### **Policy 3.29 Wastewater – no change**

### **Policy 3.30 Protection of Air Quality**

- Added language regarding “contributing to climate change” as part of negative effects of pollutants.

*Note: OSBT suggested also adding language about the role of trees and plantings to help reduce exposure to air pollutants at the street level. This should be addressed in the “Built Environment” chapter – highlighting the important role of street trees and vegetative plantings in mitigating air quality and reducing exposure to pollutants at the street level.*

### **New section added to reference all relevant master plans**

## ATTACHMENT F-2: Proposed changes to Natural Environment Section

Red text represents text additions or ~~deletions~~.

### 3. Natural Environment

*Draft – Dec. 5, 2016*

In this section, the “natural environment” includes the city and county owned open space lands as well as environmental components (like air, water, geological features) and remnants of the natural environment within the urban area. Preservation and protection of the natural environment that characterizes the Boulder Valley is a core community value that has defined Boulder since the end of 19<sup>th</sup> century. Within the Boulder Valley’s complex ecological system, there are inextricable links among the natural environment, plants and animals, the built environment, the economy and community livability. Changes to the natural ecosystems within the Boulder Valley can have a profound effect on ecosystem viability and the quality of life desired by Boulder Valley residents.

A mixture of wildlands and urban lands exist throughout the Boulder Valley in a continuum often referred to as the “urban wildland” interface. High quality ecosystems containing primarily native plants and animals occupy one end of the natural environment gradient. Land that is not dominated by native species but that is in a natural condition without buildings or development is found further along the gradient. On the other end of the gradient are lands that contain mostly non-native plants and animals and are used primarily for developed recreation, transportation or other purposes (e.g., parks, greenways) in an urban environment. These lands are often managed differently for different purposes.

Over many decades, with the initiative and financial support of local citizens, the city and county have actively protected and managed open space around the urban area, and existing city and county open space plans and policies apply to those public lands acquired and managed as habitat conservation areas, natural areas, recreational areas, and agricultural areas.

As in the rest of the world, the Boulder Valley climate is experiencing local and regional climate change within the larger global climate regimes. Anticipated further changes and intensified weather events and warming heighten the need for the city and county to proactively reduce risk and protect resources.

Boulder has been at the forefront of environmental protection and preservation for many years. Sixty-three percent (63%) of the Boulder Valley Comprehensive Plan area has been protected by the city and county as open space for critical habitat for native plants and animals, agricultural productivity, and ~~The vast amount of natural land protected by the city and county~~ contributes to the high quality of life for residents for recreation, relaxation, and connection with nature. The community’s historic and on-going emphasis on clean air and water, and preservation of natural habitats has resulted in significant progress toward a sustainable, resilient and healthy urban environment.

The city ~~and county places strong emphasis on being a leader and role model to other communities for its exemplary environmental protection practices and accomplishments.~~ The city will continue to identify and develop and implement state-of-the-art environmental policies both community wide ~~and within the city government organization~~ to further its natural environmental sustainability goals.

The policies in this section support the following city and county goals related to the conservation and preservation of land, water, air resources and pollution prevention and resilience:

- Protecting Native Ecosystems and Biodiversity ~~and Native Ecosystems~~
- Enhancing Urban Environmental Quality
- Protecting Geologic Resources and Reducing Risks from Natural Hazards
- Sustaining and Improving Water and Air Quality

Reaching these goals requires an overall planning and management strategy that incorporates an understanding of ecological systems and implements adaptive management principles for monitoring and course corrections.

### **3.01 Incorporating Ecological Systems into Planning**

The city and county will approach planning and policy decisions in the Boulder Valley through an ecosystem framework in which natural regions like bioregions, airsheds and watersheds are considered and incorporated into planning.

### **3.02 Adaptive Management Approach**

~~The city will employ an adaptive management approach to resource protection and enhancement.~~ An adaptive management approach to resource protection and enhancement involves establishing objectives, conducting ongoing monitoring of resource conditions, assessment of the effectiveness of management actions, revision of management actions based on new information from research, and learning from experience what works and what does not. The city and county will employ this approach.

### ***Protecting Native Ecosystems and Biodiversity***

### **3.03 Natural Native Ecosystems**

The city and county will protect and restore significant native ecosystems on public and private lands through land use planning, development review, conservation easements, acquisition and public land management practices. The protection and enhancement of biological diversity and habitat for state and federal endangered and threatened species and state, as well as county-critical wildlife habitats/migration corridors, environmental conservation areas, high biodiversity areas, rare plant areas, and significant natural communities and county and local species of concern will be emphasized. Degraded habitat may be restored and selected extirpated species may be reintroduced as a means of enhancing native flora and fauna in the Boulder Valley. Important guidance and strategies for protection and restoration are in city and county plans listed at the end of this section.

### 3.04 Ecosystem Connections and Buffers

The city and county recognize the importance of preserving large habitat areas ~~-of unfragmented habitat~~ in supporting the biodiversity of its natural lands and viable habitat for native species. The city and county will work together to preserve, enhance, restore and maintain undeveloped lands identified as critical and having significant ecological value for providing ecosystem connections (e.g., wildlife corridors) and buffers to support the natural movement of native organisms between ecosystems. Connected corridors of habitat may extend through or along the edges of the urban environment and often serve as vital links between natural areas for both wildlife and humans. They are often at the greatest risk of degradation and thus should be identified for planning and where appropriate for acquisition, restoration, and/or management.

### 3.05 Maintain and Restore Natural Ecological Processes and Natural Disturbances

Recognizing that natural ecological processes, such as wildfire and flooding, are integral to the productivity and health of natural ecosystems, the city and county will work to ensure that, when appropriate precautions have been taken for human safety and welfare, ecological processes will be maintained or mimicked-replicated in the management of natural lands.

### 3.06 Wetland and Riparian Protection

Natural and human-made wetlands and riparian areas are valuable for their ecological and, where appropriate, recreational functions, including their ability to enhance water and air quality and reduce the impacts of flooding. Wetlands and riparian areas also function as important wildlife habitat, especially for rare, threatened and endangered plants, fish and wildlife. Because they have historically been so scarce in the Front Range and because of continued degradation, ~~t~~The city and county will continue to support and develop programs to protect, ~~and~~ enhance, and educate the public about the value of wetlands and riparian areas in the Boulder Valley. The city will strive for no net loss of wetlands and riparian areas by discouraging their destruction, ~~or~~ requiring the creation and restoration of wetland and riparian areas in the rare cases when development is permitted and the filling of wetlands or destruction of riparian areas cannot be avoided. Management of wetland and riparian areas on city open space lands is described in the OSMP Grasslands Ecosystems Management Plan.

### 3.07 Invasive Species Management

The city and county will cooperate and promote efforts, both public and private, to prevent the introduction and spread of invasive and non-native plant and animal species ~~and seek to control their spread~~. High priority will be given to managing invasive species that have, or potentially could have, a substantial impact on city and county resources or ecosystem function. City and county resource management plans will provide direction and guidance for identifying -priorities for management and control of invasive non-native species. Management decisions should also take into account changing species composition due to climate change and other human impacts as well as the role in the ecosystem provided by each organism based on the best available science.

### 3.08 Public Access to Public Lands

Certain city and county-owned or managed lands provide a means for educating users on the importance of the natural environment. These pPublic lands may include areas for recreation and

preservation of agricultural use, unique natural features, and wildlife and plant habitat. Public access to natural lands will be provided for, except where closure is necessary to protect areas from unacceptable degradation or impacts to agriculture, habitat or wildlife, for public safety, or limits on access necessary to preserve the quality of the visitor experience.

### **New Policy: Climate Change Mitigation and Adaptation and Resilience**

The city and county are working to mitigate climate change and recognize that adaptation to climate change will be necessary as well. Preserving ecological reserves enhances the resilience of native ecosystems, and reduces the loss of native biodiversity, ecological processes, and ecosystems. Additionally, to prepare open space lands and natural areas for climate change, the city and county will use an adaptive approach to assess potential impacts from changes in the local climate. The city and county will consider allowing or facilitating ecosystems' transition to new states in some sites and increasing the stability and resiliency of the natural environment elsewhere. Open space master plans guide other topics related to climate change, such as visitor experiences to open space. Overall strategies may include:

1. A continued integrated approach to actively managing aspects of the local ecosystems;
2. Protection of the reserves of open space land to support the long-term viability of native plants and animals;
3. Conducting restoration projects using arid-adapted ecotypes or species;-
4. On-going attention on the interface between the natural and urban environments to better manage natural resources and human-wildlife interactions and to reduce the potential for wildfire; and
5. Improve understanding of actions necessary to maintain or restore the ecological functions of natural systems under a changing climate.

### **Enhancing Urban Environmental Quality**

#### **3.09 Management of Wildlife-Human Conflicts**

The Boulder Valley sits within a wildland-urban interface, and tThe city and county recognizes the intrinsic value of wildlife in both itsthe urban and rural settingareas. The city and county will promote wildlife and land use management practices to minimize conflicts with residents and urban land uses while identifying, preserving and restoring appropriate habitat for wildlife species in the urban area. When a wildlife species is determined to be a nuisance or a public health hazard, a full range of alternative wildlife and land use management techniques will be considered by the city and county in order to mitigate the problem in a manner that is humane, effective, economical and ecologically responsible.

(Note: move this policy to after 3.12 in final draft.)

#### **3.10 Urban Environmental Quality**

To the extent possible, the city and county will seek to protect the environmental quality of areas under significant human and urban influence ~~such as agricultural and urban lands~~ and will balance human needs and public safety with environmental protection. The city will develop community-wide programs and standards for new development and redevelopment so that negative environmental impacts will be mitigated and overall environmental quality of the urban environment will ~~not worsen and may improve~~ be maintained and improved.

#### **3.11 Urban Forests**

The city will support, promote and, in some cases, regulate the protection of healthy existing trees and the long-term health and vitality of the urban forest in the planning and design of public improvements and private development. Urban canopy plays an important role in ameliorating the effects/role of climate change; therefore, the city will guide short- and long-term urban forest management that encourages overall species diversity and native and low water demand tree species where appropriate.

### 3.12 Water Conservation

The city and county will promote the conservation of water resources through water quality protection, public education, monitoring and policies that promote appropriate water usage such as water conserving landscaping. The city will endeavor to minimize water waste and reduce water use during peak demand periods. New development and redevelopment designed to conserve water will be encouraged.

### 3.13 Integrated Pest Management

The city and county policies differ slightly in management approach. The city and county aims encourage efforts to reduce and eliminate, where possible, the use of pesticides and synthetic, inorganic fertilizers on public properties and also provides outreach and education to encourage the public to use a similar approach on private property. ~~In its own~~ The city's practices carefully consider when pest management actions are necessary and focus on creating healthy and thriving ecosystems to lower pest pressure by natural processes. When pest management is necessary, the city commits to the use of ecologically-based integrated pest management principles, which emphasizes the selection of the most environmentally sound approach to pest management and the overall goal of reducing or eliminating the dependence on using non-chemical pest-control strategies. When public or environmental health risks are identified, the city and county will balance the impacts and risks to the residents and the environment when choosing management/control measures. The county will strive to reduce the use of pesticides and synthetic, inorganic fertilizers where use does occur.

*(Note: For the next draft of this chapter, this policy will be moved to right before 3.07 in the "Native Ecosystems and Biodiversity" subsection, since invasive species are managed using IPM. It helps frame the issue there, and it is not just an urban environmental quality issue.)*

### New Policy: Soil Carbon Sequestration

The city and county recognize that soil carbon sequestration may have a range of potential benefits, including water retention, soil health and soil stabilization. Soil health is especially important for both the natural environment and agricultural lands. Section 9 (Food and Agriculture) includes a description of soil sequestration policy for tilled agricultural lands.

For the natural environment, the current capacity of native grasslands and forests to sequester carbon will be important in city and county soil carbon sequestration efforts. Native grasslands and forests will be maintained and protected following resource management plans. Opportunities to manage soil carbon levels in such areas if and when appropriate need to be consistent with adopted plans and policies.

## **Protecting Geologic Resources and Reducing Risks from Natural Hazards**

### **3.14 Unique Geological Features**

Due to its location at the interface of the Great Plains and the Rocky Mountains, the Boulder Valley has a number of significant or unique geological and paleontological features. The city and county will attempt to protect these features from alteration or destruction through a variety of means, such as public acquisition, public land management, land use planning and regulation, and density transfer within a particular site.

### **3.15 Mineral Deposits**

Deposits of sand, gravel, coal and similar finite resource areas will be delineated and managed according to state and federal laws and local government regulations. ~~Mineral deposits and other non-renewable resources will be used with the greatest practical efficiency and the least possible disturbance to existing natural and cultural resources. The use of non-renewable mineral resources will be considered only when conservation and recycling is not a feasible alternative. The impacts of such resource use will be balanced against other community values and priorities, including environmental and cultural resource protection, health concerns and carbon emission reduction. The city and county will work together to acquire mineral rights as appropriate.~~

### **3.16 Hazardous Areas**

Hazardous areas that present a danger to life and property from flood, forest fire, steep slopes, erosion, unstable soil, subsidence or similar geological development constraints will be delineated, and development in such areas will be carefully controlled or prohibited.

### **3.17 Erosive Slopes and Hillside Protection**

Hillside and ridge-line development will be carried out in a manner that, to the extent possible, avoids both negative environmental consequences to the immediate and surrounding area and the degradation of views and vistas from and of public areas. Due to the risk of earth movement and/or mud slides, special attention needs to be paid to soil types and underlying geological strata before and during planning, design and construction of any development on or at the base of hillsides.

### **3.18 Wildfire Protection and Management**

As Boulder County's climate changes, wildfire may become increasingly common. The city and county will require on-site and off-site measures to guard against the danger of fire in developments adjacent to natural lands and consistent with forest and grassland ecosystem management principles and practices. Recognizing that fire is a widely accepted means of managing ecosystems, the city and county will integrate ecosystem management principles with wildfire hazard mitigation planning and urban design.

### **3.19 Preservation of Floodplains**

Undeveloped floodplains will be preserved or restored where possible through public land acquisition of high hazard properties, private land dedication and multiple program coordination. Comprehensive planning and management of floodplain lands will promote the preservation of natural and beneficial functions of floodplains whenever possible.

### 3.20 Flood Management

The city and county will protect the public and property from the impacts of flooding in a timely and cost-effective manner while balancing community interests with public safety needs. The city and county will manage the potential for floods by implementing the following guiding principles: a) Preserve floodplains; b) Be prepared for floods; c) Help people protect themselves from flood hazards; d) Prevent unwise uses and adverse impacts in the floodplain; and e) Seek to accommodate floods, not control them. The city seeks to manage flood recovery by protecting critical facilities in the 500-year floodplain and implementing multi-hazard mitigation and flood response and recovery plans. The city and county recognize that multiple hazard risks are closely linked, such as the role of fire damaged slopes and increased risk of flooding.

### 3.21 Non-Structural Approach to Flood Management

The city and county will seek to preserve the natural and beneficial functions of floodplains by emphasizing and balancing the use of non-structural measures with structural mitigation. Where drainageway improvements are proposed, a non-structural approach should be applied wherever possible to preserve the natural values of local waterways while balancing private property interests and associated cost to the city.

### 3.22 Protection of High Hazard Areas

The city will prevent redevelopment of significantly flood-damaged properties in high hazard areas. The city will prepare a plan for property acquisition and other forms of mitigation for flood-damaged and undeveloped land in high-hazard flood areas. Undeveloped high hazard flood areas will be retained in their natural state whenever possible. To reduce risk and loss, Compatible uses of riparian corridors, such as riparian corridors, natural ecosystems, wildlife habitat and wetlands will be encouraged protected wherever appropriate. Trails or other open recreational facilities may be feasible in certain areas.

### 3.23 Larger Flooding Events

The city and county recognizes that floods larger than the 100-year event will occur resulting in greater risks and flood damage that will affect even improvements constructed with standard flood protection measures. The city will seek to better understand the impact of larger flood events and consider necessary floodplain management strategies, including the protection of critical facilities, as defined by the city.

## *Sustaining and Improving Water and Air Quality*

### 3.24 Protection of Water Quality

Water quality is a critical health, economic and aesthetic concern. The city and county have been protecting, maintaining and improving water quality and overall health within ~~the~~ Boulder Creek Valley watersheds as a necessary component of existing ecosystems and as a critical resource for the human community. The city and county will continue seek to reduce point and nonpoint sources of pollutants, protect and restore natural water systems, and conserve water resources. Special emphasis will be placed on regional efforts, such as watershed planning, and priority will be placed on pollution prevention over treatment.

### 3.25 Water Resource Planning and Acquisition

Water resource planning efforts will be regional in nature and incorporate the goals of water quality protection, ~~and as well as~~ surface and ground-water conservation. The city will continue to obtain additional ~~municipal~~ water ~~supplies~~ resources as needed to ~~e~~nsure adequate drinking water, maintain instream flows and preserve agricultural uses. The city will seek to minimize or mitigate the environmental, agricultural and economic impacts to other jurisdictions in its acquisition of additional municipal water supply to further the goals of maintaining instream flows and preventing the permanent removal of land from agricultural production elsewhere in the state.

### 3.26 Drinking Water

The city and county will continually seek to improve the quality of drinking water and work with other water and land use interests as needed to assure the integrity and quality of its drinking water supplies. The city and county will employ a system-wide approach to protect drinking water quality from sources ~~s~~ waters to the water treatment plant and throughout the water distribution system.

### 3.27 In-stream ~~Minimum~~ Flow Program

The city will pursue expansion of the existing in-stream flow program consistent with applicable law and manage stream flows to protect riparian and aquatic ecosystems within the Boulder Creek watershed.

### 3.28 Surface and Groundw-Water

Surface and groundwater resources will be managed to prevent their degradation and to protect and enhance aquatic, wetland and riparian ecosystems. Land use and development planning and public land management practices will consider the interdependency of surface and groundwater and potential impacts to these resources from pollutant sources, changes in hydrology, drilling, mining, and dewatering activities.

### 3.29 Wastewater

The city will pursue sustainable wastewater treatment processes to achieve water quality improvements with greater energy efficiency and minimal chemical use. Pollution prevention and proactive maintenance strategies will be incorporated in wastewater collection system management. The county will discourage the installation of private on-site wastewater systems where municipal collection systems are available or where a potential pollution or health hazard would be created.

### 3.30 Protection of Air Quality

Air quality is a critical health, economic and aesthetic concern. The city and county will seek to reduce stationary and mobile source emissions of pollutants. Special emphasis will be placed on local and regional efforts to reduce pollutants, which cause adverse health effects, ~~and~~ impair visibility and contribute to climate change.

#### **Relevant Master Plans include:**

- Grasslands Ecosystem Management Plan, OSMP
- Forest Ecosystem Plan, OSMP
- Boulder County Comprehensive Plan Environmental Resources Element (2016)

- Visitor Master Plan, OSMP
- Water Utility Master Plan
- Water Efficiency Plan
- Boulder's Climate Commitment
- City of Boulder Resilience Strategy
- Greenways Master Plan
- Integrated Pest Management Policy

## ATTACHMENT G-1: Summary of proposed changes to Food and Agriculture section

### Section 9. Agriculture and Food – Summary of Proposed Changes

Dec. 5, 2016

This section focuses on agriculture, food, sustainable practices, and access to food for the community. The city and county have made significant contributions to the preservation of lands for agricultural production and the water needed to use these areas for agriculture. Most agricultural production in the Boulder Valley occurs on city and county open space. The changes to this chapter reflect updated plans and work since the 2010 Plan including:

- Agriculture Resources Management Plan (in progress)
- City of Boulder Water Efficiency Plan (2016)
- HR&A's Recommendations for Resilience Integration (2016)
- 2015 State of Colorado Water Plan (2015)
- Boulder County Environmental Element (2014)
- Parks and Recreation Master Plan (2012)
- City of Boulder Source Water Master Plan (2009)
- Ordinances and policy changes to promote local food sales
- Boulder County Cropland Policy (2011)

Additional changes since the Aug. 24 draft reflect input from the community and county staff. They include:

#### **Introduction/Preamble:**

- This chapter will stand alone as its own chapter rather than be combined with others as initially proposed.
- The second paragraph has new definitions of "agricultural lands" as requested by a member of the public. While more extensive language was suggested to define soil health, staff did not recommend including it in the BVCP, because the topic is really too detailed for the BVCP, and probably should be addressed in an upcoming Open Space Master Plan or other plans that address agricultural operations.

#### **Policy 9.01 Support for Agriculture**

- Added language to be consistent with current practice.

#### **Policy 9.02 Urban Gardening and Food Production**

- This policy was moved from former Policy 9.05 and slightly modified.

#### **Policy 9.03 Sustainable Food Production and Agricultural Practices**

- Title has been changed back to include Sustainable "Agricultural" Practices along with "Food Production" to reflect that some but not all agriculture is food production and to recognize the value of animal feel, range, and pasture systems.

- County staff also requested a note recognizing conventional agriculture as a significant share of agricultural operations and that shifting to sustainable agriculture could take some time. This note seems out of place in a policy but could go in the introduction or in the Agricultural Resources Management Plan or other master plans.
- Notes that the city and county will seek opportunities to gather and share data to inform future decision making.
- Includes cross reference to pesticide and invasive species policies in Sec. 3.

#### **New Policy 9.04 Soil Health and Soil Carbon Sequestration**

- New policy is based on a request from a member of the public. It was originally suggested for the Natural Environment section, but because of its relationship to soil health and tilled lands it is most appropriate in this section.
- OSMP staff suggested modifying the original prescriptive language that required certain actions prior to knowledge about the tool and its appropriateness. This policy suggests a phased and research-based approach.

#### **Updated Policy 9.05 Access to Healthy Food**

- Adds “county.”
- This updated policy reflects cooperative efforts to establish markets and facilities and increase access to healthy food. It replaces some outdated language in former policy 9.06.

#### **Policy 9.06 Regional Efforts to Enhance the Food System – no changes**

## ATTACHMENT G-2: Proposed changes to Agriculture and Food Section

Red text represents text additions or deletions.

Green double underlined text has been relocated from elsewhere

### 9. Agriculture and Food

Draft – Dec. 5, 2016

~~A strong local food system can positively impact the resiliency, health, economy and environment of the Boulder Valley and surrounding region.~~ Food choices and their agricultural method of production represent one of the most significant impacts that humans have on the quality of our lives~~world around us.~~ A strong local food system can positively impact the resiliency, health, economy and environment of the Boulder Valley and its surrounding areas. Sustainable rural and urban agricultural practices and efficient short distances to transport of food can help reduce energy used to feed the community. Access to healthysafe food, including locally grown food for all Boulder residents, is a top priority for our community. It is important that such~~healthy~~ food be available to individuals and families in all neighborhoods, regardless of economic situation and location.

~~Roots in progressive food movements run deep in Boulder County and have contributed to the dynamic and thriving natural foods industry. Many local restaurants specialize in providing local ingredients in their food, garden to table processes have been developed in local schools, and the desire for a year-round farmers market are all indications of people's growing interest and demand for locally produced food.~~

The city and county have made significant contributions to the preservation of lands suitable for agricultural production, and the water needed to use these areas for agriculture. Most agricultural production in the Boulder Valley occurs on city and county open space. Agricultural lands in the Boulder Valley included tilled cropland, irrigated fields, hay fields, grazed fields, orchards, tree farms, and urban plots.

The following policies on agriculturalle and ~~access to local~~ food systems guide public policy and decision-making in to move our community, ~~toward a more robust agricultural economy and ensuring everyone has access to food.~~

- Support for Agriculture
- ~~Local Food Production~~
- Sustainable Food Production~~Agricultural~~ Practices
- Soil Health and Soil Carbon Sequestration
- Regional Efforts to Enhance the Food System
- Urban Gardening and Food Production
- Access to ~~Locally Produced~~ Healthy Food

#### 9.01 Support for Agriculture

The city and county ~~will~~ encourage the preservation of working agricultural lands, and sustainable production of food on them ~~use of agricultural lands as a current and renewable~~

~~source of food and feed and for their contribution to the degree they provide~~ cultural, environmental, ~~and economic diversity and resilience~~ benefits to the community. These ~~uses~~ areas are important for preserving the rural character ~~and agriculture in~~ Area III. The success of agriculture on these lands is vitally dependent on their water supplies. The city and county will demonstrate and encourage the protection of significant agricultural areas and related water supplies and facilities, including the historic and existing ditch systems, through a variety of means, which may include public acquisition, land use planning, and sale or lease of water for agricultural use. The city and county will support farmers and ranchers in this area as they negotiate the challenges of operating in a semi-arid environment that is often near residential areas.

### **9.025 Urban Gardening and Food Production**

The city encourages community and private gardens to be integrated in the city. City incentives include allowing flexibility and/or helping to remove restrictions for food production and sales on private lands and in shared open spaces and public areas, and encouraging rooftop gardens and composting and planting edible fruit and vegetable plants where appropriate.

### **9.02 Local Food Production**

~~The city and county will encourage and support local food production to improve the availability and accessibility of healthy foods and to provide other educational, economic and social benefits. The city and county support increased growth, sales, distribution and consumption of foods that are healthy, sustainably produced and locally grown for all Boulder Valley residents with an emphasis on affordable access to food for everyone and long term availability of food.~~

### **9.03 Sustainable Food Production and Agriculture Practices**

The city and county will promote sustainable food production and agricultural practices on publicly- owned lands and will encourage them on private lands. Sustainable practices include food production methods that ~~are healthy, have low environmental impact, integrate ecological conservation objectives, enhance soil health, responsibly use water and protect its quality, provide for pollinator and beneficial insect habitat,~~ are respectful to workers, are humane to animals, provide fair wages to farmers, integrate whole farm planning and support farming communities. These can include a range of production types that take into account land suitability, water availability, invasive species, energy use and labor and capital needs. The city and county will also promote sustainable agriculture by recognizing the critical importance of delivering irrigation -water to agricultural lands.

### **New Policy 9.04: Soil Health and Soil Carbon Sequestration**

The city and county may consider strategies to enhance soil health and sequester soil carbon on certain agricultural lands. They city and county recognize that there is baseline work to be done, such as conducting research and literature reviews, identifying relevant information gaps, and determining if and how Open Space Mountain Parks (OSMP) and county Parks and Open Space tilled lands best offer opportunities to address carbon sequestration,- beginning with limited experimentation in tilled lands.

### **9.05 Access to Healthy Food**

The city and county will support cooperative efforts to establish community markets throughout the community and region. Such efforts include working to identify a location or develop facilities to allow one or more year-round farmers' markets, supporting sales of produce from small community gardens and working with local partners on food programs. The city and county support increased growth, sales, distribution and consumption of foods that are healthy,

sustainably produced and locally grown for all Boulder Valley residents with an emphasis on affordable access to food and long term availability of food.

## **9.064 Regional Efforts to Enhance the Food System**

The city and county will participate in regional agricultural efforts and implement recommendations at a local level to the extent appropriate and possible.

### ~~9.05 Urban Gardening and Food Production~~

~~The city will encourage community and private gardens to be integrated in the city. This may include allowing flexibility and/or helping to remove restrictions for food production in shared open spaces and public areas, encouraging rooftop gardens and composting and planting edible fruit and vegetable plants where appropriate.~~

### ~~9.06 Access to Locally Produced Food~~

~~The city will support cooperative efforts to establish community markets throughout the community and region. Such efforts include working to identify a location or develop facilities to allow a year round farmers market and support sales of produce from small community gardens.~~

#### **Relevant Master Plans include:**

- Agriculture Resources Management Plan (in progress)
- City of Boulder Water Efficiency Plan (2016)
- HR&A's Recommendations for Resilience Integration (2016)
- 2015 State of Colorado Water Plan (2015)
- Boulder County Environmental Element (2014)
- Parks and Recreation Master Plan (2012)
- Boulder County Cropland Policy (2011)
- City of Boulder Source Water Master Plan (2009)

Final draft plan will include links to relevant policies in the Built Environment, Natural Environment, Energy and Climate, and Community Well-Being chapters

## ATTACHMENT H-1: Brief Summary of Changes to the BVCP Trails Map

### PROPOSED CHANGES

The proposed changes to the BVCP Trails map include:

- Addition of descriptive language on the map (*purpose of map, definitions of proposed trails, conceptual trail alignments and conceptual connections, and where to get more information*)
- New proposed trails and new conceptual alignment for proposed trails
- Modifications to proposed trails
- Changes from 'proposed' to 'existing' to reflect newly constructed trails.
- Removal (deletion) of proposed trails and proposed rerouting / removal of existing trails
- Map corrections

### New Proposed Trails:

New proposed trails are highlighted in purple (circles and lines). These include upgrades to multi-use paths and proposed connections to trails or other paths identified in the Transportation Master Plan (TMP), West and North Trail Study Area Plans, or the Boulder Reservoir Master Plan.

- Newly identified trails in the North Trail Study Area Plan (2016):
  - Antler Loop – west of Wonderland Lake
  - Wonderland Lake– Designate parallel path on north side of Wonderland Lake
  - North Sky Trail – Foothills Trail connection to Joder Ranch Trail
  - Mahogany Loop – loop on Joder Ranch Trail
  - Connection from Joder Ranch Trail to Buckingham Park
  - Connection from proposed Coyote Trailhead to Joder Ranch Trail
  - Connection from Foothills Trail to Degge / Eagle trails
  - Shale Trail – Boulder Valley Ranch Trailhead to Eagle Trail
  - Wrangler Trail – Hidden Valley Trail to Kelso Road
  - Talon Trail – Boulder Reservoir to Niwot Road
  - Area III Future Park Site to OSMP – *conceptual connection*
- Boulder Reservoir (2012): conceptual alignment around the west side of the reservoir and a trail along the north side of the reservoir
- Diagonal to IBM – From TMP
- Various small connections added in the Transportation Master Plan Update (2014)
  - Lehigh to Bear Creek Elementary School
  - Hanover – Broadway east to Summit Middle School
  - Dartmouth – Broadway east to Martin Park / Creekside Elementary School
  - Sioux Dr. at EBRC
  - Greenways connection 38<sup>th</sup> St. alignment – north of E Aurora at BCSIS/High Peaks
  - CU east – Discovery to Foothills
  - CU east – Potts field across Boulder Creek
  - CU – Boulder Creek connection to Recreation Center
  - Iris south to Hawthorn (near 22<sup>nd</sup> St.)
  - Utica connection to OSMP north of Wonderland Lake
  - US 36 connection to Vine Pl.

### **Modifications to Proposed Trails:**

Modifications to proposed trails are highlighted in blue and reflect areas where better information about the proposed alignment is available or where alignments have been modified from the previously adopted BVCP Trails Map.

- Trail alignment planned from Airport Rd to Andrus Rd - TMP
- Diagonal – to Pleasantville Fields, Clarified in the TMP
- Anemone Trail – WTSA – conceptual alignment to refined alignment

### **Modifications to Existing Trails:**

Modifications to existing trails occurred in various places on Open Space properties due to flood impacts and reconstruction. These are highlighted in yellow.

### **Constructed Trails (Constructed/Modified)**

Trails that have been constructed since the 2010 update are highlighted in green.

- US36 at Table Mesa east to planning area boundary
- Baseline – Broadway to 36<sup>th</sup> St.
- CU – Cockerell Dr.
- CU – 28<sup>th</sup> St. (Baseline to Colorado)
- CU – Boulder Creek to Arapahoe (near 22<sup>nd</sup> St)
- Arapahoe – Folsom to 30<sup>th</sup> St. north and south side
- Arapahoe – Cherryvale east to Westview Dr. on south and east to 75<sup>th</sup> on north
- Boulder Creek path to 48<sup>th</sup> St. (north of hospital)
- 30<sup>th</sup> – Arapahoe to Walnut
- Walnut – 29<sup>th</sup> -30<sup>th</sup>
- Pearl and 30<sup>th</sup> (NW and SE)
- Pearl – 30<sup>th</sup> to Foothills north side
- Foothills Hwy (west side – Goose Creek path to Valmont
- Valmont Rd. north side at Valmont Park
- Valmont and Airport Rd NW
- Iris Ave and Broadway at Boulder County campus
- Crestview Park
- Fourmile Creek Path – Broadway to Violet
- Fourmile Creek Path – 26<sup>th</sup> to 28<sup>th</sup>
- Arrows removed: Chapman Dr. built; US36 multi-use path built

### **Deletion of Trails:**

Proposed trails that are recommended for removal from the BVCP Trails Map are shown in orange. These reflect TMP or TSA planning processes and adopted plans.

- Airport Rd. to Independence Rd (east of Hayden Lake): 2014 TMP, removed due to difficulty to construct and limited connectivity and need
- Hwy 93 to Greenbriar: 2014 TMP, connection determined not necessary
- Gunbarrel west of 63<sup>rd</sup> Street and Twin Lakes; Gunbarrel Ave north to proposed trail and Spine Rd at Lookout Rd south to proposed trail; 2014 TMP- difficult to construct in drainageway and provides little connectivity.
- 27<sup>th</sup> St./Mapleton to Goose Creek (west of 28<sup>th</sup> St):

- Elmers Twomile creek path connections between Glenwood and Iris: 2014 TMP- difficult to construct due to buildings, not needed
- 28<sup>th</sup> and Iris – connection to Diagonal Hwy: trails reconfigured with Diagonal reconstruction
- Foothills Hwy west side connection to Wonderland Creek: different alignment
- *Southern section of Sunshine Trail – removed in WTSA process*
- Various small connections identified through TMP connections planning (*some need to be changed on the North Boulder Subcommunity Plan*)
  - Connection Greenbriar to Broadway
  - Table Mesa – Vassar to Broadway
  - Skunk Creek – 27<sup>th</sup> Way to US36 ramp
  - CU Pleasant St. to stadium
  - Mapleton – Goose Creek (west of 30<sup>th</sup> St.)
  - Boulder Junction to RR
  - 28<sup>th</sup> St. west to Wonderland creek path
  - Kalmia to Linden at 23<sup>rd</sup> St.
  - Linden 19<sup>th</sup> to 21<sup>st</sup>
  - 9<sup>th</sup> Street – Iris to Jasmine
  - Poplar – 17<sup>th</sup> to 19<sup>th</sup>
  - 19<sup>th</sup> St. north of Yarmouth to US36

### **Removal of Existing Trails**

Through the North Trail Study Area Plan sections of the following existing trails are recommended for closure and removal: Old Kiln Trail, Old Mill Trail, Mesa Reservoir Trail, and Degge Trail.

Previously existing trails that have been removed due to flood recovery or that had been identified through planning processes are shown in grey.

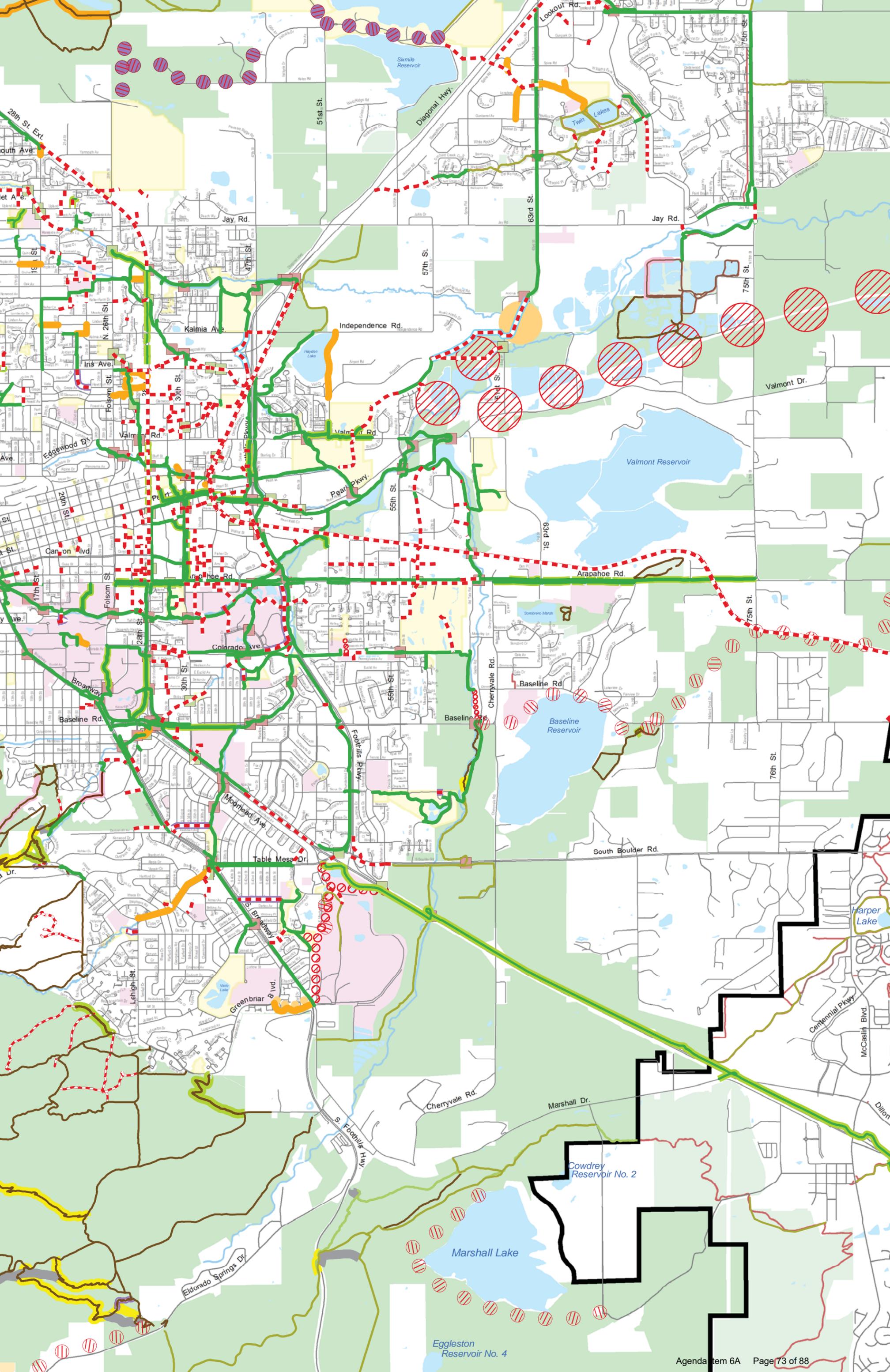
### **Map Corrections:**

Map corrections are highlighted in pink, and are trails that are included in the TMP, TSA, or other Planning process, and appear to have been inadvertently left off from the 2010 version of the map.

- Four Pines Trail – exists, not previously shown on map
- West of 71<sup>st</sup> Street by Walden Ponds – exists, not previously shown on map
- East of Twin Lakes - exists, not previously shown on map
- Around Coot Lake - exists, not previously shown on map

### **Revisions to the BVCP Trails Map Description**

Minor revisions are proposed to the descriptions of proposed trails and conceptual trail alignments. Arrows indicating conceptual connections outside the planning boundary have been modified to be consistent in size. Additionally, revisions are proposed to the implementation section and BVCP Trails Map Description.



## Attachment H-3 Revised Trails Map Description – BVCP Implementation Section

### Trails Map

The Boulder Valley Comprehensive Plan Trails Map is a comprehensive guide for existing and proposed trails and trail connections for the entire Boulder Valley. It shows proposed trails that have been planned through departmental master planning or area planning processes as well as trail connections that are important links in the Boulder Valley and regional trails systems.

A color version of the trails map can be found at: <http://www.bouldervalleycompplan.net> and click on Plans.

Trails planning in the Boulder Valley involves balancing environmental, community, and mobility goals as well as resolving or mitigating trail impacts. The following Boulder Valley Comprehensive Plan policies guide trails planning:

- Policy 2.~~30~~-20 Boulder Creek and its Tributaries as Important Urban Design Features
- Policy 2.~~32~~-23 Trail Corridors / Linkages
- Policy 8.12 Trail Functions and Locations
- Policy 8.13 Trails Network

The Trails Map shows existing and proposed trails in the Boulder Valley that are or will be administered by the city of Boulder Planning Department, Parks and Recreation Department, Open Space and Mountain Parks Department, Transportation Division, the Greenways Program and Boulder County Parks and Open Space and Transportation Departments. This map is used by the city, the county, Boulder Valley citizens and other concerned parties to understand, maintain and advance the network of trails that the city, the county, and other public agencies now provide and hope to provide in the future and should be used as a system planning tool.

Each department generates more detailed maps to meet their own needs and those of trails users. Other maps (such as those in departmental master plans or specific area plans) are used to show complete systems.

The Trails Map includes designated unpaved off-street paths, paved off-street paths, multi-use paths that are paved and separated from but parallel to a road, and short, paved off-street paths that connect to a larger trail or bike network and are part of an adopted pedestrian or bike system plan. It does not include sidewalks, on-street bike lanes or bike routes, paved road shoulders or low volume streets serving as bike lanes, routes, or internal walkways.

Trails planning and implementation occur at several steps that get progressively more detailed. The first step is to identify a need or desire for a trail or trail connection, a step that usually occurs as part of departmental master plans. Interdepartmental coordination on trails and trail connections occur as part of the master planning process. Proposed

trails may be further refined through other detailed planning processes, such as the Capital Improvements Program (CIP), Trail Study Area (TSA) or Community and Environmental Assessment Process (CEAP). Two kinds of trail designations are included on the Trail Map—conceptual trail alignments and proposed trails. The primary difference relates to the degree that the trail has been studied and whether or not a specific trail alignment has been worked out.

Specific definitions include:

### **Proposed Trails**

These trails are represented by ~~dashed~~ solid red lines on the Trails Map. These dashed lines show a general the trail need or desire, but they also show a more definite trail alignment accepted by the public entities involved. There may still be issues to be worked out at the project planning step, but the trail alignment is relatively more certain.

### **Conceptual Trail Alignments**

These trails are represented by bubbles (or circles) on the Trails Map. These circles/bubbles show the need or desire recommendations for the trail located in as a conceptual trail corridor, as determined through planning processes. The specific alignment has not yet been selected, often because there are still issues that need to be resolved. These issues may involve the need for further study or public process and usually require resolution of environmental, ownership, neighborhood, or other concerns. However, the concept for the trail is supported by the signatories of the Boulder Valley Comprehensive Plan.

### **Conceptual Connections**

In some cases, a planning process has identified an intention to connect trails within the BVCP area to trails or destinations outside the planning area. In such cases, the Trails Map shows an arrow pointing from an existing or proposed trail toward an area outside the Planning Area Boundary. These arrows indicate a general direction for potential connecting trails but not a specific alignment or trail corridor.

### **Process for Changes to the Trails Map**

At each mid-term or major update to the Boulder Valley Comprehensive Plan, an interdepartmental staff group will assess the need to update the Trails Map. If changes are warranted, staff will analyze the map and compile a list of recommended changes to be included in the Comprehensive Plan update process. Changes to the map may occur when there has been new information or changed circumstances regarding a proposed trail or when an alternatives analysis and public process have occurred at the master planning or area planning level and new trails plans have been adopted. Minor changes can be incorporated into the Trails Map at any time without board adoption. These minor map changes are limited to changes in factual information, which include map corrections and

changes in designation from proposed to existing trails (i.e., built). These minor map changes will be identified for the boards at the Comprehensive Plan update process.

Any member of the public may propose changes to the Trails Map at a mid-term or major update to the Comprehensive Plan. These requests should be made in the application process established for the update. Staff will analyze these proposals and a recommendation will be presented to the four adopting bodies along with other applications.

Changes to the Trails Map will be forwarded to the following advisory boards for review and comment: Open Space and Mountain Parks Board of Trustees, Greenways Advisory Committee, Transportation Advisory Board, Parks and Recreation Advisory Board, and the County Parks and Open Space Advisory Committee. Changes to the Trails Map may also be forwarded to other advisory boards depending on issues associated with a trail proposal. Recommendations and comments will be forwarded to the adopting bodies. Changes to the Trails Map must be adopted by the city Planning Board, City Council, the County Planning Commission, and the County Commissioners. All recommendations for changes to the Trails Map will be evaluated by each of the departments involved. Agreement by affected departments on the suitability of the trail and trail alignment will be sought as part of the interdepartmental review.

## ATTACHMENT H-4: Proposed changes to Trail Policies

Red text represents text additions or deletions.

Green double underlined text has been relocated from elsewhere

### Parks, Open Space and Trails

#### 8.12 Trail Functions and Locations

The city and county recognize that trails are an important tool to achieve accessibility goals and connect humans and the natural environment. Trails serve a variety of functions such as exercise, recreation, transportation, education and/or environmental protection. Trails should be designed to provide a safe and enjoyable experience and managed to minimize conflicts among trail users. ~~Trailheads should be located so they are convenient and safe for those arriving by alternate modes of transportation as well as automobiles.~~ Trails should be designed for physical and environmental sustainability, signed, monitored and adequately maintained to encourage on-trail travel. Informal trails, the widening of trails by users, and off-trail use should be discouraged and/or eliminated. ~~In order to provide environmental protection, informal trails and user widening of trails should be discouraged by ensuring that formal trails are well designed, monitored and adequately maintained.~~ Trail and trailhead locations and alignments should avoid environmentally sensitive areas, ~~and~~ minimize environmental impacts and look for opportunities to enhance habitat connectivity. Trailheads should be located so they are widely accessible, convenient and safe for those arriving by alternate modes of transportation as well as automobiles.

#### 8.13 Trails Network

The city and county will coordinate with other trail providers and private landowners in trail system planning, construction, management and maintenance. In consideration, ~~Where compatible~~ with environmental protection goals and ~~conservation~~ easement agreements, trail connections will be developed to enhance the local access to trails and the overall functioning of the trails network. The city and county strive to connect trails systems and expand connections to adjacent trails systems to further regional connectivity.

**ATTACHMENT H-5 Documentation and Assessment of Feedback on Trails**

**Policies** Policy revisions aim to:

- Provide policy language, not background, supporting information or rationale unless essential to understanding and implementing the policy.
- Decrease redundancy throughout the section, with other sections or other policies.
- Simplify the language and eliminate jargon
- Provide appropriate policy level for broad application at the comprehensive plan level. (Detail appropriate to specific areas and circumstances should be developed in master or area plans).

Policy 8.12 Trail Functions and Locations provides guidance for:

	Current concepts	Additions
Function	Exercise, recreation, transportation, education, and environmental protection	Trails serve many functions: accessibility and connecting humans and natural setting
Design	Designed to minimize conflicts among users.  Formal trails should be well-designed.  Discourage and eliminate informal trails, widening of trails, off-trail use.	Design for safe and enjoyable visitor experience  Encourage on-trail travel and sign formal trails  Design for physical and environmental sustainability
Management	Trails should be monitored and adequately maintained.	
Location	Avoid environmentally sensitive areas and minimize environmental impacts  Trailheads located so they are convenient and safe for those arriving by car, transit, bike or walking.	Look for opportunities to enhance habitat connectivity  widely accessible

**Documentation and Assessment of Feedback**

Suggested Revision	Themes	Assessment
<p><b>8.12 Trail Functions and Location</b></p> <p><i>Karen Hollweg, et.al, comments to trails policies that were included with other extensive suggestions for the Natural Environment section:</i></p> <p>The following revisions are needed to update the sections regarding Trail Functions and Locations and Trails Networks:</p> <ul style="list-style-type: none"> <li>• Designated and undesignated trails should not further fragment intact open space natural areas</li> <li>• Social / undesignated trails should be eliminated and measures should be taken to strongly discourage fragmentation by off-trail use</li> <li>• Add “signed” i.e. ensuring that formal trails are well-designed, signed</li> </ul>	<ol style="list-style-type: none"> <li>1. Trails should not further fragment intact open space natural areas.</li> <li>2. Social / undesignated trails should be eliminated and measures should be taken to strongly discourage fragmentation by off-trail use</li> <li>3. Add “signed” to design</li> </ol>	<ol style="list-style-type: none"> <li>1. Add concept “look for opportunities to enhance habitat connectivity”</li> <li>2. Addressed in revisions about informal or social trails</li> <li>3. Add “signed”</li> </ol>

Suggested Revision	Themes	Assessment
<p><b>8.12 Trail Functions and Location</b></p> <p><i>The following suggestions were made by community member Jason Vogel</i></p> <p>Trails are central to the character and identity of Boulder County’s people, towns, and landscape. Trails are infrastructure critical to enjoyment of, recreation in, and conservation of open space. The trails in Boulder County support the healthy lifestyle that draws residents and tourists alike and are a necessary resource for developing a land ethic in the next generation of Boulder citizens. As important infrastructure, trails deserve the same level of professional expertise in planning, design, construction, and maintenance as would be given to other facilities such as libraries, schools, parks, and recreation centers. Current best practices blend four inter-related components of sustainability: ecological, physical, social, and managerial.</p>	<ol style="list-style-type: none"> <li>1. Central to character of Boulder Valley</li> <li>2. Critical to enjoyment of recreation and conservation of open space</li> <li>3. Support healthy lifestyle for residents and visitors/tourists</li> <li>4. Necessary for developing land ethic for next generation</li> <li>5. Need professional expertise in planning, design, construction and maintenance</li> <li>6. Best practices blend inter-related components of sustainability: ecological, physical, social and managerial</li> </ol>	<ol style="list-style-type: none"> <li>1. Descriptive – reflect in to section intro language to be revised.</li> <li>2. Descriptive – not broadly applicable (more than OSMP trails).</li> <li>3. Addressed generally in list of functions</li> <li>4. Descriptive, not policy</li> <li>5. Implementation – not appropriate comp plan policy level</li> <li>6. Add design for physical and environmental sustainability</li> </ol>
<p>Trails are more than lines on a map; they are an experience in nature. Trail planning and design efforts must explicitly consider and provide for the enjoyment and fun that trails provide the community. The fun and enjoyment of trails is directly linked to youth spending time outdoors to develop a conservation ethic and healthy lifestyle in an era monopolized by digital screens and convenience foods.</p>	<ol style="list-style-type: none"> <li>1. Planning and design must consider and provide for enjoyment and fun</li> <li>2. Fun and enjoyment linked to youth spending time outdoors, conservation ethic and healthy lifestyle</li> </ol>	<ol style="list-style-type: none"> <li>1. Addressed - Add concept “enjoyable visitor experience”</li> <li>2. Descriptive, not policy</li> </ol>

Suggested Revision	Themes	Assessment
<p><b>8.12 Trail Functions and Location</b></p> <p>Within the context of public lands, trails are a useful tool in helping manage visitors to accomplish other open space goals. Trails guide visitors through open space, taking them to places with high quality recreation experiences such as viewpoints and unique land features and leading them away from critical or imperiled natural resources, thus minimizing impacts. Trails should be routed with careful attention to popular destinations—both within, and outside of open space areas—to provide loops of varying length, and quickly disperse visitors near access points. Use modern trail design to cue on trail compliance and curb trail braiding, short-cutting switchbacks and off-trail travel. Understanding and meeting visitor needs helps to minimize the creation of social trails, reduce user conflict, and ultimately moderate ecological impacts. While respecting environmental constraints, trails should be designed to integrate humans with nature rather than separate them.</p>	<ol style="list-style-type: none"> <li>1. Trails useful tool to help manage visitors</li> <li>2. Guide visitors through open space to take people to viewpoints, unique land features and popular destination</li> <li>3. Lead people away from critical or imperiled natural resources, minimizing impacts.</li> <li>4. Use design to curb trail braiding, short cutting, and off-trail travel.</li> <li>5. Understanding visitor needs to minimize social trails, reduce user conflict and ecological impacts</li> <li>6. Designed to integrate humans with nature</li> </ol>	<ol style="list-style-type: none"> <li>1. Not applicable to all trails, “useful tool to achieve many goals” concept included in proposed change</li> <li>2. Not applicable to all trails (outside OSMP)</li> <li>3. Detailed – high-level concept addressed in design.</li> <li>4. “ “</li> <li>5. Addressed in discouragement of social trails</li> <li>6. Addressed in concepts for design.</li> <li>7. Add intro “trails as important tool.. connect humans and natural environment”.</li> </ol>

Suggested Revision	Themes	Assessment
<p><b>8.12 Trail Functions and Location</b></p> <p>Visitor experience and enjoyment are influenced by the setting, scenery, trail character, challenge, and other subtle factors that should be understood and considered. One key influence is the interaction with other visitors. Contemporary knowledge in trail planning and design offers approaches—ranging from specific tread to full trail system scales—to shape positive visitor interactions and minimize conflict. At a trail system scale: provide loops, disperse visitors near access points, intentionally offer variety of character and difficulty, and serve the suite of non-motorized visitors. At a specific trail scale: encourage on-trail compliance with engaging design, interesting trailside anchors, playful character, vistas, and destinations. Design away visitor conflict by reducing speed differentials, balancing sight-lines, and limiting intersections. Avoid design pitfalls, unnecessary restrictions, or inflammatory signage that may counterproductively increase perceived visitor conflict.</p>	<ol style="list-style-type: none"> <li>1. Visitor experience influenced by setting, trail character and challenge</li> <li>2. Trail planning and design can shape positive visitor interactions and minimize conflict by reducing speed differentials, balancing sight-lines and limiting intersections</li> <li>3. Encourage on-trail compliance with engaging design</li> </ol>	<ol style="list-style-type: none"> <li>1. Descriptive, not policy</li> <li>2. Detailed, generally addressed</li> <li>3. Concept generally addressed in “sustainably-designed”</li> </ol>

Suggested Revision	Themes	Assessment
<p><b>8.12 Trail Functions and Location</b></p> <p>Multiple use and shared use trails should be the mainstay because they serve the greatest number of people, are inherently most equitable, and reduce ecological impact. However, to enhance one user group’s experience or address high use or high conflict situations, sparingly consider single use, alternating use, or directional use policies or purpose-built trails developed to increase trail system functionality. Such management practices should take the least restrictive successful approach, be equitable and fair, be transparent to the public, and be developed collaboratively with the various visitor groups affected.</p>	<ol style="list-style-type: none"> <li>1. Shared use (multiple use) trails serve greatest number of people and most equitable, reduce ecological impacts</li> <li>2. To enhance a particular group’s experiences or address high use or high conflict situations, sparingly consider single-use, alternating use, or directional uses or purpose-built trails.</li> <li>3. Take least restrictive successful approach, be equitable and fair, transparent and develop collaboratively with visitor groups affected</li> </ol>	<ol style="list-style-type: none"> <li>1. Descriptive and position statement, not policy</li> <li>2. Too detailed for comp plan, general application possibly at master plan or area plan level</li> <li>3. Detailed trail design and management process. General application possibly at master plan or area plan level.</li> </ol>

Suggested Revision	Themes	Assessment
<b>8.12 Trail Functions and Location</b>		
<p>Trails should be designed and critiqued with physical sustainability in mind—each trail should remain stable in its intended condition. Modern trail design includes techniques (such as rolling grade dips, grade reversals, meander, climbing turns) to minimize erosion and decrease sedimentation while minimizing long-term maintenance needs. Trail condition monitoring, mud closures, and communications to the public are critical to reduce tread damage while respecting citizens’ outdoor lifestyle.</p>	<ol style="list-style-type: none"> <li>1. Trails designed with physical sustainability in mind</li> <li>2. Apply trail design techniques to minimize erosion and decrease sedimentation and minimize long-term maintenance needs</li> <li>3. Condition monitoring, mud closures, and communications to the public are critical to reduce tread damage</li> </ol>	<ol style="list-style-type: none"> <li>1. Addressed in new language about sustainable design</li> <li>2. “ “</li> <li>3. Detailed, general application possibly at master plan or area plan level.</li> </ol>
<p>Informal social trails and off-trail travel—whether in core open space or private connections—should be discouraged by ensuring that formal trails are well designed, monitored, adequately maintained, and truly address visitor desires. Trailheads should be located so they are convenient and safe for those arriving by alternate modes of transportation as well as automobiles. Increasing focus should be placed on public transit stops associated with trailheads as well as parking for bicycles. Trail and trailhead locations and alignments should avoid environmentally sensitive areas and minimize environmental impacts to the fullest extent reasonable.</p>	<ol style="list-style-type: none"> <li>1. Informal social trails and off-trail travel should be discouraged through design, monitoring, maintenance and addressing visitor desires</li> <li>2. Trailheads located for convenience and safe for those arriving by alternate modes and automobiles.</li> <li>3. Focus for locations on public transit stops and provide parking for bicycles</li> <li>4. Locate trails and trailheads to avoid environmentally sensitive areas and minimize environmental impacts to the fullest extent reasonable</li> </ol>	<ol style="list-style-type: none"> <li>1. Generally addressed in revisions, with less detail</li> <li>2. Addressed in existing language (moved) “Trailheads should be located so they are convenient and safe for those arriving by alternate modes as well as automobiles.</li> <li>3. Too detailed, not broad application</li> <li>4. Concept addressed in this policy and 3.08</li> </ol>

Suggested Revision	Themes	Assessment
<b>8.12 Trail Functions and Location</b>		
Using a thorough understanding of trails and visitor dynamics will yield decisions and designs that offer the greatest good and begin to reverse the unnecessary polarization of conservation and recreation.	1. Trail knowledge and visitor dynamics to yield decisions and designs that offer greatest good and reduce polarization of conservation and recreation.	Process, not function/design. More appropriate for process of master or area planning

**Policy 8.13 Trails Network provides guidance for:**

	Current concepts	Additions
Coordination	City and county coordinate with other trail providers in trail system planning	
Connections	Trail connections should enhance overall function of trail network and be compatible with environmental goals	Enhance local access to trails  Strive to connect trail systems and enhance regional connectivity

Suggested Revision	Themes	Recommended policy addition/revision:
<b>8.13 Trails Network</b>		
<p><i>The following suggestions were made by community member Jason Vogel</i></p> <p>Trails do not exist in isolation. Each is part of a trail system, and good management should consider the role of each trail within the greater trail network or community. Regional connectivity of parks, greenways, open spaces, and residential areas is increasingly important to reduce parking demand, increase accessibility, disperse use, reduce traffic congestion, and reduce global warming and other air pollution. Regional trail connectivity leverages the assets of any one trail system by connecting it to other trail systems, thus creating a larger overall trail network. Local access to multi-use trails systems removes barriers for youth and positions trail access points as an overwhelmingly positive neighborhood amenity. The practical effect of</p>	<ol style="list-style-type: none"> <li>1. Consider role of each trail within the greater trail network</li> <li>2. Regional connectivity is important to reduce parking demand, increase accessibility, disperse use, reduce traffic congestion, reduce global warming and other air pollution</li> <li>3. Regional connectivity leverages the assets of one system by creating a larger overall network</li> <li>4. Local access to trail systems removes barriers for youth and positions trail access as a positive neighborhood amenity</li> <li>5. Encourages alternative modes of transportation to trail system; reduces parking demand and impacts of parking facilities; disperse trail use, enhances long distance recreation experiences.</li> </ol>	<ol style="list-style-type: none"> <li>1. More appropriate for process of master or area planning</li> <li>2. Add regional connectivity</li> <li>3. “ ”</li> <li>4. Descriptive, not policy</li> <li>5. Descriptive, not policy</li> </ol>

Suggested Revision	Themes	Recommended policy addition/revision:
<p>this is to encourage non-automobile modes of transportation to trail systems; to reduce parking demand and the impacts of large parking facilities; to disperse trail use across trail systems; to reduce crowding impacts on users, neighborhoods, and ecosystems; and to enhance opportunities for long distance recreation experiences.</p>		
<p>Land management agencies in Boulder County should strive to work across jurisdictional boundaries, including working with private land owners, to network existing open space trail systems with community bike and pedestrian paths, greenways, and public parks. It is important, however, to recognize the different contexts of different regional trails. Some regional trails operate primarily as transportation corridors and should be designed with transportation accessibility and function in mind. Other regional trails function as connectors between existing recreational trail systems and should be designed to enhance the recreational value of the overall trail network. In some cases, “redundant” connections should be provided to allow for loop circulation or seasonal variances. The city and county should coordinate with other trail providers and private landowners in trail system planning, construction, management, and maintenance. Where compatible with environmental protection goals and conservation easement agreements, trail connections will be developed to enhance the overall functioning of the trails network.</p>	<ol style="list-style-type: none"> <li>1. Strive to work across jurisdictional boundaries, including working with private land owners, to network existing open space trail systems with community bike and pedestrian paths, greenways, and public parks.</li> <li>2. Coordinate with other trail providers and private landowners in trail system planning, construction, management, and maintenance.</li> <li>3. Recognize the contexts of different regional trails, some as transportation corridors, others as connectors between existing recreational trail systems.</li> <li>4. In some cases, “redundant” connections should be provided to allow for loop circulation or seasonal variances.</li> <li>5. Where compatible with environmental protection goals and conservation easement agreements, trail connections will be developed to enhance the overall functioning of the trails network.</li> </ol>	<ol style="list-style-type: none"> <li>1. Addressed in 8.13</li> <li>2. Addressed in 8.13</li> <li>3. Design details appropriate at process for master or area planning</li> <li>4. Too detailed for comp plan, possibly appropriate at process for master or area planning</li> <li>5. Addressed in 8.13</li> </ol>
<p>Trail systems should:</p>	<p>Trail systems should:</p>	<ol style="list-style-type: none"> <li>1. Generally covered in 8.12</li> </ol>

<b>Suggested Revision</b>	<b>Themes</b>	<b>Recommended policy addition/revision:</b>
<ul style="list-style-type: none"> <li>o be accessible from nearby neighborhoods</li> <li>o accommodate the local spectrum of non-motorized visitors in an equitable fashion</li> <li>o offer a variety of trail character, loop length, and challenge in each system</li> <li>o provide a sense of place showcasing unique topography, biomes, and viewsheds</li> </ul>	<ol style="list-style-type: none"> <li>1. be accessible from nearby neighborhoods</li> <li>2. accommodate the local spectrum of non-motorized visitors in an equitable fashion</li> <li>3. offer a variety of trail character, loop length, and challenge in each system</li> <li>4. provide a sense of place showcasing unique topography, biomes, and viewsheds</li> </ol>	<ol style="list-style-type: none"> <li>2. Too detailed for comp plan, appropriate to be determined area planning level</li> <li>3. More appropriate for process of master or area planning</li> <li>4. Generally addressed in 8.12</li> </ol>