

**CITY OF BOULDER**  
**AGENDA ITEM PLANNING BOARD**  
**MEETING DATE: September 5, 2019**

**AGENDA TITLE:**

Public hearing and consideration of the following requests related to a 6.3-acre property at 4475 Broadway (Ponderosa Mobile Home Park):

1. Boulder Valley Comprehensive Plan (BVCP) land use map designation change from Manufactured Housing (MH) and Open Space, Other (OS-O) to Medium Density Residential (MR) (#LUR2019-00014);
2. Recommendation on an application for Annexation of the property with an initial zoning of Residential Medium – 2 (RM-2) (#LUR2019-00016); and
3. Site Review for the phased installation of utility and transportation infrastructure and construction of 12 new residential units along the western edge of the property (currently vacant). The site review would allow existing mobile homes to remain but would permit the replacement of mobile homes with similar-sized fixed foundation homes. The long-term concept (10+ years) includes 73 permanently affordable residential units on fixed foundations. New homes are proposed as primarily single-family and duplex homes, with some carriage houses, triplexes, and four-plexes (#LUR2019-00015).

Translation services will be available at the hearing for Spanish speakers.

Applicant: KURT FIRNHABER, CITY OF BOULDER  
DANICA POWELL, TRESTLE STRATEGY GROUP  
Property Owner: CITY OF BOULDER

**REQUESTING DEPARTMENT:**

**Department of Planning**  
Chris Meschuk, Asst. City Manager/Interim Director of Planning  
Charles Ferro, Development Review Manager (Planning)  
Sloane Walbert, Senior Planner

**OBJECTIVE:**

1. Planning Board hears applicant and staff presentations.
2. Public Hearing.
3. Planning Board discussion and action on the proposed BVCP land use map change, make recommendation to City Council on the Annexation, and action on the proposed Site Review.

**PROPOSAL AND SITE SUMMARY:**

**Proposal:** Proposal to annex the Ponderosa Mobile Home Park and phased installation of utility and transportation infrastructure. The long-term concept (10+ years) includes approximately 73 permanently affordable residential units on fixed foundations. The development would include common amenities like a community center, community gardens, and pocket park. The proposal includes a mix of residential unit types, including primarily single-family and duplex homes, with some carriage houses, flats, and townhomes. The goal is non-displacement of existing residents and mobile homes would remain in the development for the foreseeable future. Construction of new homes is estimated to begin in 2021. New homes are proposed on the west edge of the property, which would allow current residents to move into a new home without having to relocate from the community for a long construction period. To meet CDBG-DR (Community Development Block Grant – Disaster Recovery) funding deadlines the infrastructure construction must be underway by September 30, 2020.

As part of Site Review, the applicant has requested the following modifications from code standards:

- Section 9-7-1, "Schedule of Form and Bulk Standards" to allow a 15-foot front yard setback on Cherry Avenue, where 25 feet is required;
- Section 9-7-1, "Schedule of Form and Bulk Standards" to allow a 1.5-foot rear yard setback along the western property line, where 25 feet is required; and
- Section 9-9-13, "Streetscape Design Standards" to allow less than the required number of street and alley trees.

**Project Name:** PONDEROSA COMMUNITY STABILIZATION PROGRAM  
**Location:** 4475 Broadway  
**Size of Property:** 6.3 acres  
**Zoning:** Existing: County Zoning of MH – Manufactured Home Park  
Proposed: Residential - Medium 2 (RM-2)  
**Comprehensive Plan:** Existing: Manufactured Housing (MH), Open Space, Other (OS-O)  
Proposed: Medium Density Residential (MR)

Staff has identified the following key issues to help guide the board's discussion:

1. Does the project, on balance, meet the relevant goals and policies of the Boulder Valley Comprehensive Plan?
2. Is the proposed annexation consistent with State statutes and BVCP policies, including BVCP Policy 1.16, Annexation?
3. Does the proposed change to the BVCP land use map to Medium Density Residential (MR) meet the applicable criteria?
4. Is the proposed zoning of RM-2 appropriate for the site considering the context of the surrounding area?
5. Is the project consistent with the North Boulder Subcommunity Plan?
6. Does the project meet the applicable Site Review criteria in Section 9-2-14(h), B.R.C. 1981?

## I. INTRODUCTION AND BACKGROUND

### PROCESS

#### Annexation:

The property requires annexation to be brought into the City limits and to allow for upgrades / repairs to the existing utility connections. Land may be considered for annexation to the City, if the annexation would comply with state annexation statutes and the policies of Boulder Valley Comprehensive Plan (BVCP). The property borders the Boulder city limits on all sides (enclave) and is located within Area II of the BVCP. It is anticipated in the Comprehensive Plan that Area II shall be annexed to the city of Boulder within three years, consistent with the phased expansion of the city's capacity to provide adequate urban facilities and services. If a property is annexed, zoning will be established according to land use designation in the Land Use Map of the Boulder Valley. The city's annexation policies are located within Policy 1.16 of the BVCP. Per Annexation Policy 1.16.b, the city will actively pursue annexation of county enclaves, substantially developed properties along the western boundary below the Blue Line and other substantially developed Area II properties. An annexation agreement is required to establish the terms and conditions of the annexation. Standard terms and conditions, such as right-of-way dedication requirements, affordable housing contributions, and fees are established through city codes and policies. Annexations involve at least two public hearings. The first is conducted by the Planning Board, who will make a recommendation to the City Council whether or not the annexation should be approved, and the terms, conditions and zoning that should be applied. The City Council then holds a second public hearing before making their determination.

#### Land Use Map Change:

The BVCP land use designation for this property is Manufactured Housing (MH) and Open Space, Other (OS-O). A land use designation change to Medium Density Residential (MR) is necessary to permit the proposed construction of fixed foundation homes on the property. The change must be found to be consistent with BVCP policies, compatible with the surrounding area, and satisfy several other factors listed in Appendix B (Section A.1) of the BVCP. The process to change the land use map requires approval by the Planning Board and City Council. There is no Boulder County call-up requirement since the site is an enclave. The land use change may be considered concurrently with the annexation application.

#### Site Review:

The project is required to complete Concept Plan and Site Review because the site meets the minimum thresholds for the proposed RM-2 zoning, which is properties over 2 acres or that include at least 20 dwelling units. Given the proposed number of units (73), and the size of the site (6.29 acres), a Site Review is required pursuant to Table 2-2, "Site Review Threshold Table," B.R.C. 1981. A Concept Plan for the proposed project was submitted and reviewed by the Planning Board on June 7, 2018 and by City Council on August 23, 2018.

### BACKGROUND

The 6.3-acre property is located in North Boulder, northwest of the intersection of Violet Avenue and Broadway. The property has frontage on and access from both Cherry Avenue and Broadway. The site is located adjacent to Fourmile Canyon Creek. Refer to **Figure 1**. The property is under the jurisdiction of Boulder County and is considered an enclave to the city because the property is surrounded by the Boulder city limits on all sides. The property contains the Ponderosa Mobile Home Park, which was established sometime in the early 1950s with homes on wells and septic systems. A 1958 aerial photograph shows the park with 16 units. By 1966 the park had expanded to 54 units, and by 1972 to 68 units, which is the size the park remains today. The northern 60 feet of the property, including the "arm" to Broadway, were dedicated as Boulder County right-of-way in 1961 for planned Rosewood Avenue. However, this area has not been treated as a public right-of-way since the late 1960s.



Figure 1: Birds-Eye View of Site

The park operated on a well and septic system until the late 1970s, when water supply issues began resulting in the park running out of water, and potential contamination issues arose. An out-of-city utility agreement was approved in 1978 to allow the park to connect to city water and sewer systems (Ordinance no. 4320). The city issued the water connection permit in 1980. Based on the as-built drawings, it appears the city water connection was tied into the existing park water line infrastructure. Connection to the city sewer system occurred in 1984 and was also tied into the existing park sewer line infrastructure. Mobile homes are serviced through overhead electrical lines. The property currently has no site stormwater detention or water quality controls. Internal access roads are un-paved. The park would require substantial infrastructure improvements to meet city standards. Based on the language contained in the out-of-city utility agreement, the property may perform continued maintenance of the existing utilities at their own expense, but any upgrades or modifications to the existing utilities will require annexation into the city.



Figure 2: Existing Conditions

Ponderosa is a diverse community that is nearly entirely homeowners and primarily (98 percent) low and moderate income. The park is 100 percent occupied. The mobile home park currently contains 68 households (67 mobile homes and one two-story office structure with manager's quarters). Many of the homes have been modified or added on to over time, including building additions, outbuildings, and accessory structures. The development contains three "blocks" or sections of homes. Homes are oriented east-west on mobile home bays (spaces or pads). The bay sizes range from 26-30 feet in width and approximately 70 feet in depth in the older sections of the park (east side) to approximately 40 feet in width to 80 feet in depth on the west side. Homes are close to each other and most homes do not meet the minimum separation between homes (side-to-side and end-to-end), nor the setbacks from boundary lines in the city's land use code (Section 9-7-13, "Mobile Home Park Form and Bulk Standards," B.R.C. 1981). Manufactured homes are regulated by the U.S. Department of Housing and Urban Development (HUD), rather than through building codes adopted by states or local governments.

In addition to the mobile home park, a commercial structure is located on the "arm" of the property that extends to Broadway. The one-story frame building is currently used for retail sales (carniceria) and is attached to the commercial shopping center at 4459-4483 Broadway. Refer to **Figure 3** and the survey in **Attachment D**. The structure was constructed in the 1960s within area that was previously dedicated as Boulder County right-of-way. In 2009, the owner of the Ponderosa property filed a "quiet title action" claiming title to the entire arm of the property extending to Broadway. As a result of the lawsuit, ownership was confirmed but a building easement, limited parking rights, and an access easement were granted to the neighboring property owner in a decree quieting title from the Boulder County District Court. Boulder County was part of the quiet title action since the structure is located in area previously dedicated as Boulder County right-of-way. The County filed a Disclaimer of Interest in the property (disclaiming any right, title, or interest) except the effect of the North Boulder Annexation Ordinance and amendment.



Figure 3: Carniceria Commercial Structure

**History of City Involvement.** In 1990, the city began studying the park due to life safety and infrastructure concerns, and in 1991 and 1992 Thistle Communities (then Thistle Community Housing) and the city worked to examine the feasibility of purchasing and operating the park. In 1992 the city, residents, and the property owner began discussing the annexation of the park, upgrades to the utilities, and the sale of the property to the city for the purpose of eventual transfer to the residents as a resident-owned community. In May 1994, the city formally offered to purchase the park, plus the then vacant two-acre parcel to the west for \$944,000. City staff, at the direction of the City Council, proceeded to identify the necessary phased upgrades to the park, including reconstruction of the utilities, paving the streets, and replacing unsafe units by utilizing the vacant two-acre parcel to resolve spacing issues with existing units. The total cost for infrastructure upgrades was estimated at just over \$1,000,000 in 1996. The city proposed a phased purchase package for the owner to spread the city's purchase payments over several years, and a loan to transition to a resident-owned community. In April 1996, the owner informed the city that he was not interested in responding to the city's purchase offer, which the city then formally withdrew.

In 2000, the owner began the process of exploring annexation again, this time without any city purchase considerations. The city reviewed and provided numerous comments and questions for additional analysis to the owner. In 2002, the application for annexation was withdrawn. In 2004, the then-owner (since 1971) sold the park (without the adjacent vacant two-acre parcel) to one buyer. The adjacent parcel was then sold to a separate buyer, annexed, and developed as the 1000 Rosewood project.

The owner of Ponderosa performed small upgrades to the park and in early 2013, applied for a pre-application review to upgrade the existing water lines inside the park. Due to the provisions in the out-of-city utility agreement, annexation was

necessary before any work could be completed. In September 2013, flooding occurred throughout the city and county, including Fourmile Canyon Creek, causing shallow surface water flooding throughout the park and significant damage to surrounding properties and much of north Boulder. Apart from one mobile home that shifted off its footing, homes were not directly impacted by flooding from the creek – most damage to mobile homes resulted from water infiltration from unprecedented rainfall.

In 2014, City of Boulder was awarded a CDBG-DR (Community Development Block Grant – Disaster Recovery) Resilience Planning Grant to find resilience solutions for a three-parcel area along West Fourmile Canyon Creek that included Ponderosa. Work performed under the grant included extensive engagement with the community and the then-owner of Ponderosa, producing eleven goals and drivers for the community, including: minimize disruption to residents; keep the residents of the community together / minimize displacement; improve the resilience of the community; improve health and safety; retain affordability; create certainty for the future; achieve annexation goals; encourage long-term investment in property; improve utilities (e.g., stability, reliability, service); leverage federal disaster recovery funding; and minimize costs and maximize dollars invested. Informed by the park owner's desire to replace infrastructure in Ponderosa, a second major element of work performed under the grant was a cost estimate for infrastructure replacement. After completion of the [grant report](#) in 2016, staff considered next steps informed by the eleven goals and drivers. Staff analysis identified a course of action, including city acquisition of Ponderosa; replacement of infrastructure; annexation; preservation of long-term affordability; identification of energy-efficient home replacement options residents can afford; and reduction of flood risk to the community.

The city purchased the property on August 2, 2017. Since purchase of Ponderosa, extensive community engagement has been undertaken (e.g., a Resident Leadership Committee meets monthly and informs and represents neighbors, community workshops, the [Ponderosa Resilience Workshop](#), monthly newsletter updates, city Q & A sessions, a good neighborhood meeting, project website, residents guide, etc.). On October 17, 2017, City Council adopted the Ponderosa Resolution, affirming the city's commitment to "coordination with the residents of the Ponderosa Mobile Home Park to protect the health and life safety of the community, enable permanent affordability, promote sustainability and resilience, and ensure minimal resident displacement". Refer to the written statement in [Attachment D](#) for a detailed description of the community outreach and engagement.

**Concept Plan Review.** On Jun. 7, 2018, the Planning Board reviewed and commented on the Concept Plan Review for the redevelopment of the property and installation of infrastructure. The staff memorandum to Planning Board, meeting minutes, meeting audio, and other related materials are available in the [city records archive for Planning Board](#). City Council reviewed the Concept Plan on August 23, 2018. The staff memorandum to City Council, meeting minutes, meeting audio, and other related materials are available in the [city records archive for City Council](#). Staff's memo to City Council includes a summary of the Planning Board hearing and comments.

**Planning Area.** The property is located in Boulder Valley Comprehensive Plan Planning Area II and borders the Boulder city limits on all sides (enclave). Refer to **Figure 4**. Area II refers to land now under county jurisdiction where annexation to the city can be considered consistent with Policies *1.07 Adopting Limits on Physical Expansion*, *1.09 Growth Requirements*, *1.12 Definition of Comprehensive Planning Areas I, II & III*, and *1.16 Annexation*. Per Annexation Policy 1.16.b, the city will actively pursue annexation of county enclaves, substantially developed properties along the western boundary below the Blue Line and other substantially developed Area II properties. The property is considered an enclave because the unincorporated area has been "entirely contained" within the boundaries of the city for at least three years (C.R.S. § 31-12-106).



Figure 4: BVCP Planning Areas

**Land Use Designation.** As shown in Figure 5 below, the majority of the site is designated as Manufactured Housing (MH) on the land use map of the BVCP, which applies to existing manufactured housing parks. The MH designation is intended to preserve the affordable housing provided by the existing manufactured housing parks and allow for future affordable housing. The description from the BVCP is on the following page.

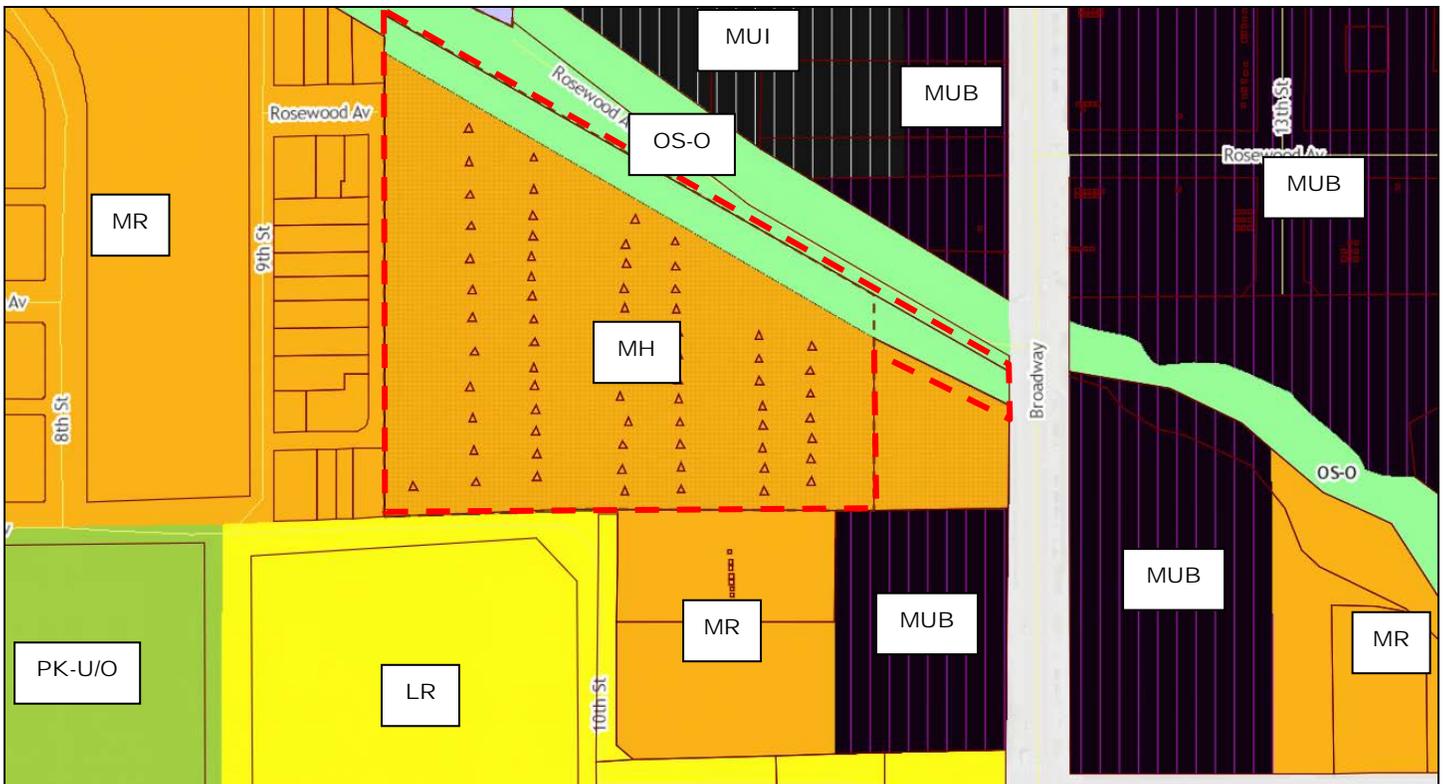


Figure 5: BVCP Land Use

	<b>Manufactured Housing (MH)</b>	<p><b>Characteristics and Locations:</b> This designation applies to existing MH parks. The intent is to preserve the affordable housing provided by the existing MH parks and allow for future affordable housing.</p> <p><b>Uses:</b> Consists of manufactured housing units.</p> <p><b>BVCP Density/Intensity:</b> Varies</p>
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The northern edge of the property is designated as “Open Space, Other” (description below), which is intended to cover the riparian area of Fourmile Canyon Creek

	<b>Open Space, Other (OS-O)</b>	<p>This designation applies to other public and private land designated prior to 1981 that the city and county would like to preserve through various preservation methods including but not limited to intergovernmental agreements, dedications or acquisitions. By itself, this designation does not ensure open space protection.</p> <p><i>When the mapping designation applies to some Area I linear features such as water features or ditches, the intent is to interpret the map in such a way that the designation follows the linear feature. OS-O may be applied to ditches; however, the category should not be used to interfere with the operation of private irrigation ditches without voluntary agreement by the ditch company.</i></p>
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The proposal includes a land use map change from Manufactured Housing (MH) and Open Space, Other (OS-O) to Medium Density Residential (MR). The Medium Density designation is characterized by a mix of housing types (from single family to attached units) that are generally situated near neighborhood and community shopping areas or along some of the major arterials of the city. The description from the BVCP is on the following page. Refer to Key Issue #3 in Section III below for staff’s analysis on the proposed map change.

	<b>Medium Density Residential (MR)</b>	<p><b>Characteristics and Locations:</b> MR is characterized by a variety of housing types. Medium-density areas are generally situated near neighborhood and community shopping areas or along some of the major arterials of the city.</p> <p><b>Uses:</b> Consists of a variety of housing types ranging from single-family detached to attached residential units such as townhomes, multiplexes and some small lot detached units (e.g., patio homes), not necessarily all on one site.</p> <p><b>BVCP Density/Intensity:</b> 6 to 14 dwelling units per acre</p>
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**Zoning.** The property is located in unincorporated Boulder County with a county zoning of MH – Manufactured Home Park. The purpose of the zoning, as defined by the Boulder County Land Use Code is to “provide for manufactured home parks in appropriate locations, consistent with comprehensive planning policies to encourage and provide for affordable housing including the preservation of existing housing stocks” (Article 4-107 of the Boulder County Land Use Code). **Figure 6** on the following page shows the surrounding city zoning districts.

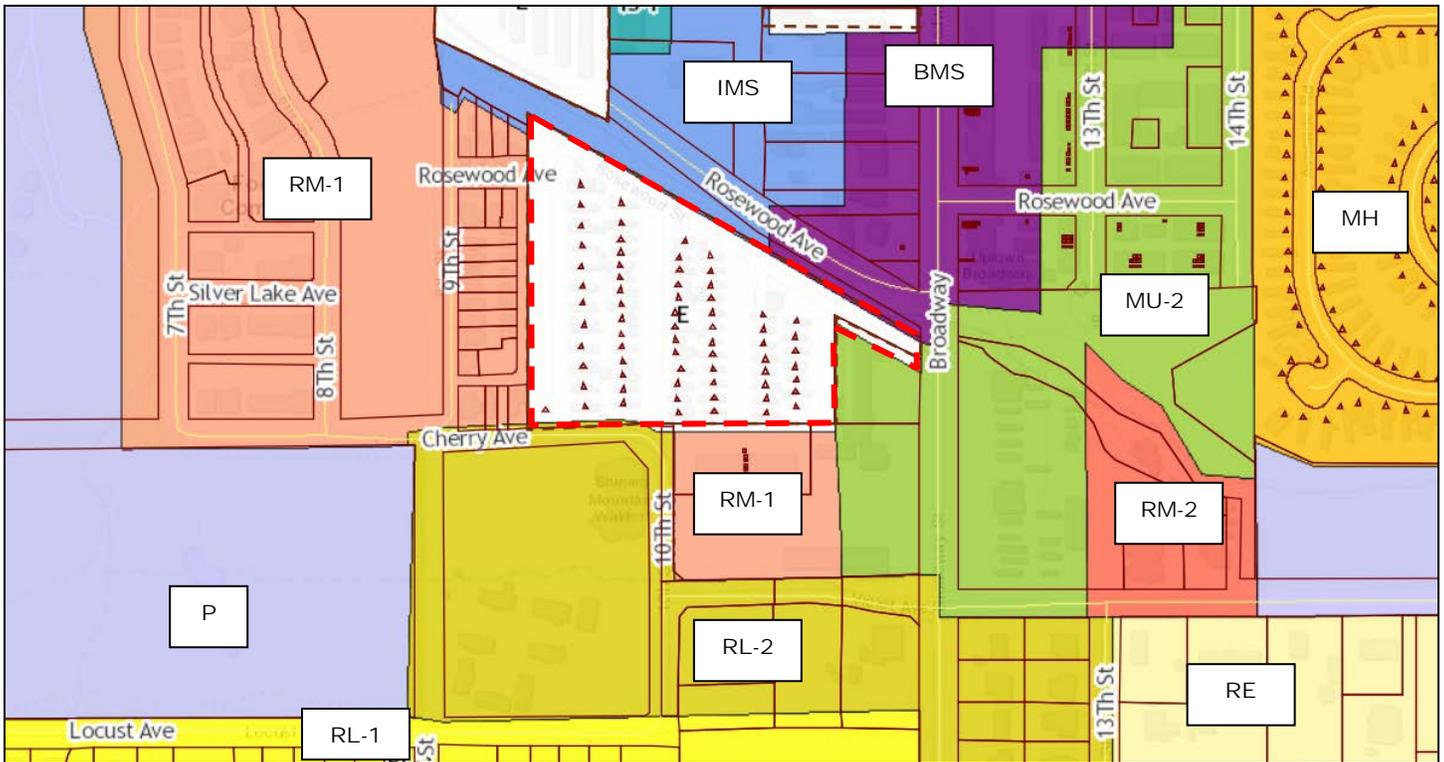


Figure 6: Surrounding City Zoning Districts

The proposed residential use is inconsistent with MH zoning since the new homes would be built on fixed foundations. The proposed zoning is Residential - Medium 2 (RM-2) and is defined in Section 9-5-2(c), B.R.C. 1981 as “[m]edium density residential areas primarily used for small-lot residential development, including without limitation, duplexes, triplexes, or townhouses, where each unit generally has direct access at ground level.” Refer to Key Issue #4 in Section III below for more information.

**Natural Features.** Fourmile Canyon Creek runs along the north property line. The property is essentially flat with a gentle slope from the northwest corner to the east property line. There is limited mature landscaping and trees scattered through the development. Views of the foothills and the flatirons in the distance are evident from the property, mostly on the west and north sides of the site. The site is primarily impacted by the 100- and 500-year flood plains of Fourmile Canyon Creek. However, there is a strip of high hazard and conveyance zone along the north property line and the “arm” to Broadway. Refer to **Figure 7**. The creek is contained within land owned by the City as open space. The September 2013 flood event caused surface flooding and shallow sheet flows throughout the mobile home park. Subsequent studies have shown that impacts from the flood were minimal, with shallow flooding of the roads, mud, and roof damage due to the rain. Future home replacements in the 100-year floodplain would be required to be elevated and meet the floodproofing standards required by FEMA. All the finished floors of all of the existing units are located above the flood elevation.



Figure 7: Flood Plains

The area is considered high functioning wetlands. Both the inner and outer buffer areas, which act to preserve and protect the wetlands, impact the north boundary of the site. Refer to **Figure 8**. No structures are proposed within the wetland buffers. A flood and drainage easement is proposed to cover the area between the property line and outer buffer to allow for future flood improvements as part of the [Fourmile Canyon Creek Greenways Improvements Project](#).

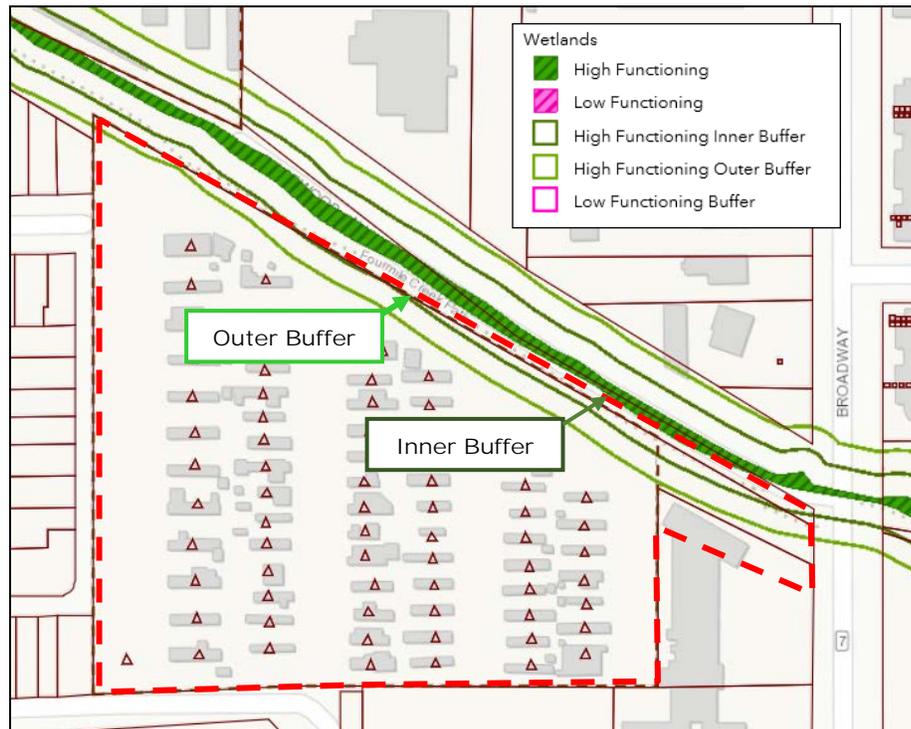


Figure 8: Wetland Buffers

**Surrounding Neighborhood.** The subject parcel is located in North Boulder west of Broadway. The surrounding area has evolved over the last 25 years from a largely rural area with a mix of residential and service or industrial uses to nodes of more urban mixed-use neighborhoods, guided by the North Boulder Subcommunity Plan. The character of the area surrounding the project site is eclectic. The site is neighbored by the recent 1000 Rosewood residential development to the west and aging industrial development to the south and east, primarily containing industrial service uses. The Shining Mountain Waldorf School and Foothills Community Park are located to the southwest, across Cherry Avenue. Beyond the school and park, to the south and southeast of the site, are established single-family residential neighborhoods. Industrial uses are located to the north across the creek, including a self-storage facility. To the east across Broadway are the Uptown Broadway and Violet Crossing developments, which are characterized by larger buildings of a contemporary style.

The property at 1000 Rosewood was annexed into the city in 2011 and was approved for 18 dwelling units (16 single-family dwellings and two duplexes). Refer to **Figure 9**. An open space reduction was approved as part of annexation. The neo-traditional development includes homes on subdivided lots with both attached and detached garages accessed from Rosewood Avenue and from an alley. Nine of the units are deed restricted as permanently affordable units. Directly west of the development is an undeveloped portion of the Foothills Community, which is used for stormwater detention.



Figure 9: 1000 Rosewood Development

**Area Plans.** The property is located within the boundaries of the North Boulder Subcommunity Plan (NBSP). The NBSP was adopted in 1995 to guide future development of North Boulder. The plan was amended in 1996 and 1997. The site is within the Union – Utica neighborhood defined by the plan and is subject to specific development guidelines for this neighborhood. Refer to Key Issue #5 in Section III of this memo for staff’s analysis of the proposal against the goals, policies, and urban design guidelines of the NBSP.

## II. PROJECT DESCRIPTION

**Annexation and Initial Zoning.** The applicant is requesting annexation by petition as provided by state law. Annexations must comply with Colorado Revised Statutes (C.R.S.), Article 12 of Title 31. Additionally, annexations must comply with city policies *1.07 Adapting to Limits on Physical Expansion*, *1.09 Growth Requirements*, *1.12 Definition of Comprehensive Planning Areas I, II & III*, and *1.16 Annexation* in the BVCP. As part of the proposal the project includes a BVCP land use map change to a Medium Density Residential land use and an initial zoning of Residential Medium – 2. Refer to the key issues analysis in Section III below for staff’s analysis of the state statutes, BVCP policies, land use designation change, and proposed zoning.

**Land Uses.** The proposal includes the following uses:

- **Residential:** 73 permanently affordable residential units as mobile homes and on fixed foundations. New homes are proposed as primarily single-family and duplex homes, with some carriage houses, triplexes, and four-plexes. Mobile homes would remain in the development and would gradually and voluntarily be replaced by new, similar-sized fixed foundation homes. No new mobile homes will be allowed. Due to the desire to allow for gradual and voluntary replacement the final unit mix is unknown. New homes will contain 1-, 2-, and 3-bedroom units. The intent is to allow for a mix of housing that can accommodate a variety of household configurations (aging in place, accessibility, larger families, singles, couples, etc.).

A long-term land lease would allow residents to own their homes. Off-site prefabricated construction is anticipated, which will minimize construction impacts to existing residents and facilitate a phased approach to housing development and replacement. The residential units are intended to be available to low, moderate, and middle income residents, priced to be affordable based on household income.

The city plans to ultimately transfer ownership to a partner, in the form of an affordable housing nonprofit or housing authority. Housing and Human Services will be overseeing infrastructure construction and will continue to own the land for a number of years until the infrastructure improvements are substantially complete. Habitat for Humanity will be the housing partner who will construct the homes and offer deep affordability through mechanisms like sweat equity, donations, and lending partners.

- Community building ("common house") as an accessory use for use for the development. The building is proposed to contain shared spaces for the residents, including an indoor gathering space ("pavilion"), DIY shop and creative space, laundry facilities, exercise room, kid's space, and a mail and recycle kiosk. Refer to **Figure 10**.
- Retail use on the northeast corner of the property adjacent to Broadway. The existing 2,400 square foot retail sales building ("carniceria") will be allowed to continue and changed in conformance with the land use code. As described above, a building easement, limited parking rights, and an access easement were granted to the neighboring property owner for this building in a decree quieting title from the Boulder County District Court.

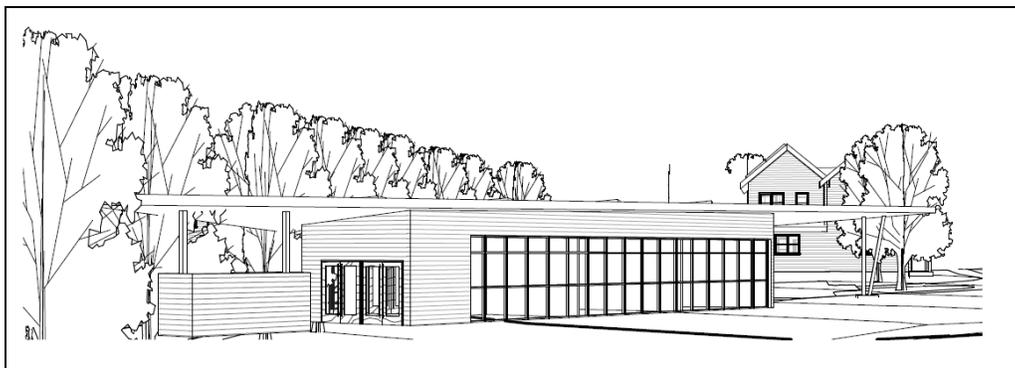


Figure 10: Perspective of Common House

**Site Plan.** The layout of the internal streets and building locations is largely driven by the intent of the Ponderosa Resolution to allow for gradual and voluntary mobile home replacement. The site design proposes to retain the existing block system and north-south internal street connections. The east-west street connections will be refined to provide better connectivity within the site and to connect to the 1000 Rosewood development to the west. Ultimately, the existing northernmost road connection along Fourmile Canyon Creek will be eliminated once the removal of homes allows for such. This area will be utilized to create common areas for the community, including a common community house, community gardens, pocket park, and connections to the creek and multi-use path. Refer to **Figure 11** on the following page.

The internal streets will be private but protected by public access easements. The draft Memorandum of Understanding (MOU) includes a provision that the Transportation Department will maintain the streets once they are completed. Refer to [Attachment C](#). Head-in parking is proposed adjacent to newly constructed units on the interior of the site. Traffic calming measures will be installed to prevent high speeds on the internal streets. Two surface parking lots are proposed on the northern end of the property, adjacent to the common house and the pocket park. Two detention and water quality basins are proposed on the southern end of the site. The internal blocks of the development will be split by a north-south bike/pedestrian path and green spaces. These spines will allow for separate vehicular and pedestrian circulation and will provide community open space, particularly as a safe and secure place for children to play outside. An eight-foot wide landscape strip and five-foot wide detached sidewalk will be constructed along the site's frontage along Cherry Avenue /10th Streets.



Figure 11: Site Plan

As part of the first phase of the development 12 new residential units are located along the west property line in space currently used as informal grassland and overflow parking. These units consist of carriage houses above garages, single-story carriage homes, a duplex, and a triplex. The homes will be accessed by an existing alley constructed by the 1000 Rosewood development. Refer to **Figure 12**. The construction of these homes will allow current residents to move into new homes without having to relocate from the community.

The central blocks of the development would transition slowly with one-for-one replacement of homes. New homes are proposed as primarily single-family and duplex homes, with some triplexes and fourplexes. Construction will occur as home and development sites become available with adequate fire separation between existing homes and new construction (**Figure 13**).



Figure 12: Existing Alley to the West

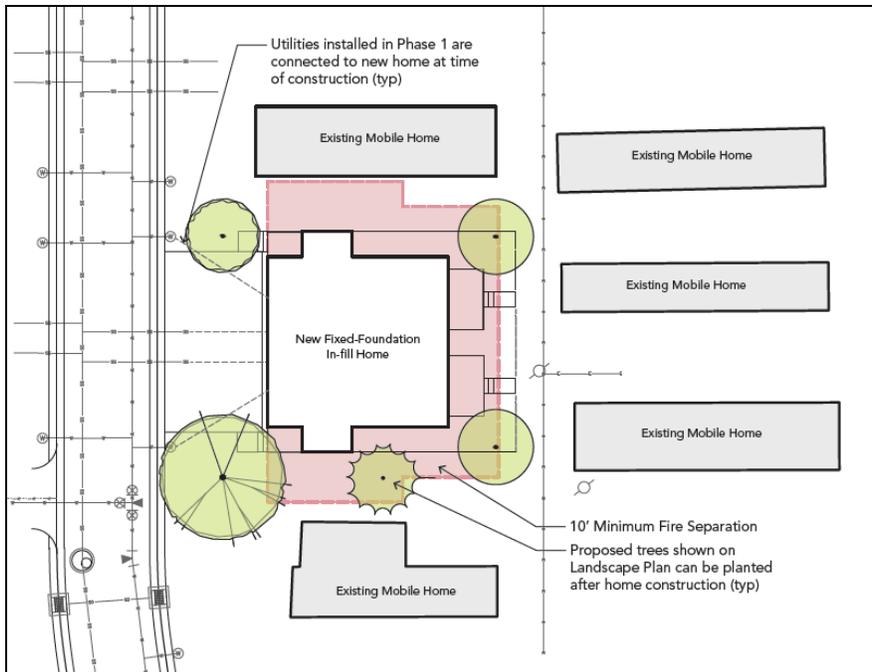


Figure 13: Fire Separation Diagram

**Access:** Primary access to the site would be from Cherry Avenue and 10th Street. Secondary access would be provided via a road extension to Rosewood Avenue. A new 4-way intersection with stop signs is proposed at the intersection of Cherry Avenue and 10<sup>th</sup> Street. The access point is designed to address safety and traffic concerns from the neighborhood, particularly related to the Shining Mountain Waldorf School. The plans show the site access from Broadway as an emergency access only. The final design of this portion of the site is unclear due to the approved flood improvements to the Broadway underpass as part of the [Fourmile Canyon Creek Greenways Improvements Project](#) and transportation improvements on Broadway as part of [The North Broadway Reconstruction Project](#). The Broadway access will remain open until such time it is required to close. The long-term plan for the northeast arm of the property is to create an outlet that will remain in city ownership to allow for future flood and transportation improvements.



Figure 14: Existing Access to Broadway / Carniceria Structure

A traffic study was not required since the project does not propose an increase in the number of dwelling units on the site, pursuant to Section 2.02 of the DCS. The proposal includes strategies that provide incentives to residents who use alternatives to the single-occupant vehicle.

**Parking.** The number of required parking spaces for the project based on RM-2 zoning is dependent on the number of detached and attached dwelling units and the number of bedrooms within the attached units. Based on the anticipated unit mix and number of bedrooms, 134 parking spaces are required per Section 9-9-6 of the land use code. The project exceeds this requirement with 137 spaces provided at full build out. The intent is to provide approximately two parking spaces for

each unit. The applicant states that the parking needs of the ponderosa community are higher than other similar communities, due to the multigenerational families, multiple work vehicles, and extended family living situations. The carriage homes on the western edge will include 2-car garages. Additionally, carports will be an option for the head-in parking adjacent to new units. The plan also includes 144 bicycle parking spaces (112 long-term and 32 short-term).

**Architecture and Building Design.** New homes are one- and two-stories in height. Floor plans and elevations have been provided for the carriage homes, duplex, and triplex that are proposed as part of Phase I of the development. These units will be built per the architectural drawings. With the build out of the remainder of the site over time, the applicant has submitted design guidelines for the single-family, duplex, triplex, and fourplex units on the interior of the site. The guidelines include unit typologies and options, paint color, siding, trim, and roofing options, new unit spacing, exterior improvements, and carport, porch, and fencing options. The structures are neo-traditional with front porches and pitched or shed-style roofs. Proposed building materials include lap board siding, with shake, board and batten, and panel siding as secondary siding options, and metal standing seam or asphalt roofing. The common house is more playful in design with wood look aluminum siding, storefront windows, overhead glass doors, and a shed roof that maximizes roof area available for photovoltaic panels. New homes will be wired for solar installation and a community solar approach is being used to distribute and share energy savings amongst all residents. Outdoor lighting will be updated to meet code as part of Phase I of the development.

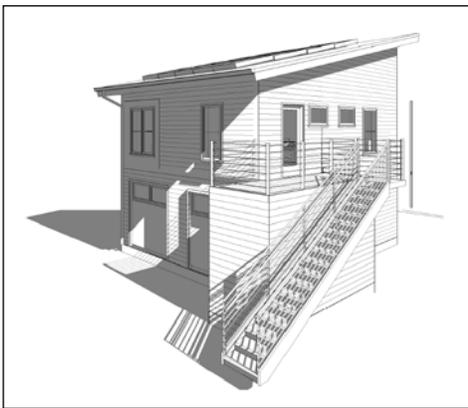


Figure 15: Phase I Carriage House



Figure 16: Phase I Triplex



Figure 17: Perspective of Interior Development

**Modifications.** In order to provide flexibility and achieve the goals in the Ponderosa Resolution, several modifications are necessary to the land use code. Generally, the modifications are necessary to allow for unit replacement to occur in the general location of the existing homes. Modifications requested include:

- Reduced setbacks for new homes on Cherry Avenue and along the western property line.
- Reduced number of street and alley trees. It is not possible to meet the code requirements due to spacing conflicts with necessary utility lines.
- Extended phasing beyond the typical three-year increments to allow for gradual implementation.
- Existing mobile homes may remain as legal nonconforming uses. Mobile homes will be allowed to remain but may not be expanded or replaced with another mobile home.
- The existing retail sales use (“Carniceria”) on the eastern arm of the property may remain as a legal nonconforming use.

**Phasing.** Refer to the detailed phasing plan in [Attachment D](#) for a description of the three phases of development. The proposed redevelopment of the site would be phased over 10+ years to provide housing options for the existing residents and to achieve the goals outlined in the Ponderosa Resolution, including minimal displacement of residents. The first phase would install necessary utilities, including new water, sanitary sewer, and storm water connections. This phase would occur immediately following annexation. The existing water and sewer lines running beneath the homes would be abandoned, and the new systems would be installed in the streets of the park. Stormwater detention will be installed to accommodate all future development as part of the first phase. Water quality improvements will be phased to treat storm runoff.

Refer to the applicant’s submittal materials in [Attachment D](#) for more information about the proposal.

### III. KEY ISSUES ANALYSIS

Staff has identified the following key issues to help guide the board’s discussion:

1. Does the project, on balance, meet the relevant goals and policies of the Boulder Valley Comprehensive Plan?
2. Is the proposed annexation consistent with State statutes and BVCP policies, including BVCP Policy 1.16, Annexation?
3. Does the proposed change to the BVCP land use map to Medium Density Residential (MR) meet the applicable criteria?
4. Is the proposed zoning of RM-2 appropriate for the site considering the context of the surrounding area?
5. Is the project consistent with the North Boulder Subcommunity Plan?
6. Does the project meet the applicable Site Review criteria in Section 9-2-14(h), B.R.C. 1981?

**Key Issue #1: Does the project, on balance, meet the relevant goals and policies of the Boulder Valley Comprehensive Plan (BVCP)?**

Staff finds that the project is consistent with the goals, objectives, and recommendations of the BVCP, particularly housing related policies. In general, the project includes opportunities for permanently affordable housing that supports socioeconomic diversity and housing for a full range of households.

The project is consistent with the following BVCP goals and policies:

	BVCP Policy	Excerpt from BVCP	How the Proposal is Consistent with BVCP Policies
Community Identity / Land Use Pattern	2.03 Compact Development Pattern	<i>"... ensure that development will take place in an orderly fashion, take advantage of existing urban services, and avoid, insofar as possible, patterns of leapfrog, noncontiguous, scattered development within the Boulder Valley. The city prefers redevelopment and infill as compared to development in an expanded Service Area in order to prevent urban sprawl and create a compact community."</i>	Medium density residential development on the site supports a compact development pattern and would take advantage of existing urban services.
	2.01 Unique Community Identity	<i>"The unique community identity and sense of place that is enjoyed by residents of the Boulder Valley and characterized by the community's setting and history will be respected by policy decision-makers."</i>	The application describes an effort to "preserve eclectic nature of community, integrate art and allow for individualism."
Neighborhoods	2.10 Preservation and Support for Residential Neighborhoods	<i>"...protect and enhance neighborhood character and livability..."</i>	The building scales and styles are similar to other nearby developments and would not be of a size, scale, or orientation that would appear out of character with existing development in the area.
Public Realm, Urban Design & Linkages	2.24 Commitment to a Walkable and Accessible City	<i>"The city and county will promote the development of a walkable and accessible city by designing neighborhoods and business areas to provide easy and safe access by foot to places such as neighborhood centers, community facilities, transit stops or centers, and shared public spaces and amenities. (...)"</i>	The proposal is within walking distance (1/4 mile) of services, retail, and restaurants along Broadway – the intended "Village Center" of North Boulder. Connections are proposed to the adjacent Four Mile Canyon Creek path. A detached sidewalk will be provided along the Cherry Ave. / 10 <sup>th</sup> St. frontage and safe pedestrian/bike connections will be provided within the development.

	BVCP Policy	Excerpt from BVCP	How the Proposal is Consistent with BVCP Policies
Design Quality	2.33 <i>Sensitive Infill and Redevelopment</i>	<i>“With little vacant land remaining in the city, most new development will occur through redevelopment in mixed-use centers that tend to be the areas of greatest change. The city will gear subcommunity and area planning and other efforts toward defining the acceptable amount of infill and redevelopment and standards and performance measures for design quality to avoid or adequately mitigate negative impacts and enhance the benefits of infill and redevelopment to the community and individual neighborhoods. (...)”</i>	The project is sensitive to the Four Mile Canyon Creek stream corridor and will be developed to meet specific regulations to not impact the flood plain and adjacent riparian areas. The project is compatible with surrounding development and with the emerging character of North Boulder.
Design Quality	2.36 <i>Physical Design for People</i>	<i>“(...) public and private development and redevelopment be designed in a manner that is sensitive to social, health and psychological needs. Broadly defined, this will include factors such as accessibility to those with limited mobility; provision of coordinated facilities for pedestrians, bicyclists and bus-riders; provision of functional landscaping and open space; and the appropriate scale and massing of buildings related to neighborhood context.”</i>	The development is relatively level and is conducive to residents who are seniors or those with disabilities. The proposal includes one-story homes that would be conducive to populations with special needs. Safe connections will be provided for pedestrians and bicyclists and the design reduces conflicts of pedestrians and bicycles with vehicles. Appropriate passive and active open spaces have been provided for the residents. Further, the building design is at a human scale and enhances the pedestrian experience.
Design Quality	2.41 <i>Enhanced Design for All Projects</i>	<i>“e. Transportation connections. Projects should provide a complete network of vehicular, bicycle and pedestrian connections both internal to the project and connecting to adjacent properties, streets and paths, including dedication of public rights-of-way and easements where required.”</i>	Vehicular, bicycle, and pedestrian connections have been provided internal to the site and connecting to the larger multi-modal network. A detached sidewalk will be provided along the Cherry Ave. / 10 <sup>th</sup> St. frontage when relocations of homes allow its construction. The design reduces conflicts of pedestrians and bicycles with vehicles.

	BVCP Policy	Excerpt from BVCP	How the Proposal is Consistent with BVCP Policies
Design Quality	2.41 Enhanced Design for All Projects	<p><i>“i. On-site open spaces. Projects should incorporate well-designed functional open spaces with quality landscaping, access to sunlight and places to sit comfortably. Where public parks or open spaces are not within close proximity, shared open spaces for a variety of activities should also be provided within developments.”</i></p>	<p>The proposal includes common open space along the creek, including a common house, community gardens, parks, and creek connections. These will serve as functional, shared open spaces. The common open spaces will be programmed for a variety of activities. In addition, Foothills Community Park is easily accessible from the site.</p>
		<p><i>“j. Buildings. Buildings should be designed with a cohesive design that enhances the streetscape and is comfortable to the pedestrian. Buildings should demonstrate approachability and a relationship to the street, with inviting entries that are visible from public rights of way, multiple entrances and four-sided design. Foster appeal of buildings through attractive, well-designed architecture made of high-quality, long-lasting materials and innovative approaches to design.”</i></p>	<p>New buildings are appropriately scaled and are proposed with building facades and porches that relate well to the pedestrian areas. The project is appropriate for the development in the context of the existing Foothills Community to the west and the greater context of the developing North Boulder subcommunity. New buildings are designed at a human scale and will enhance the pedestrian experience.</p>
Support Community Housing Needs	<p>7.01 Local Solutions to Affordable Housing</p> <p>7.02 Affordable Housing Goals</p>	<p><i>“(..) The city recognizes that affordable housing provides a significant community benefit ...”</i></p> <p><i>“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.”</i></p>	<p>The proposal for a 100 percent affordable residential development with 73 permanently affordable residential units supports these policies. The proposal will preserve and enhance existing residential units.</p>

	BVCP Policy	Excerpt from BVCP	How the Proposal is Consistent with BVCP Policies
Preserve & Enhance Housing Choices	7.06 <i>Mixture of Housing Types</i>	<i>“(…) 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 low-, moderate- and middle-income households of the Boulder Valley population. The city will encourage property owners to provide a mix of housing types, as appropriate. (…)”</i>	The proposal is for a mixture of housing types within the development. New homes are proposed as primarily single-family and duplex homes, with some carriage houses, duplexes, triplexes, and four-plexes. Mobile homes would remain in the development and would gradually and voluntarily be replaced by new, similar-sized fixed foundation homes. A long-term land lease would allow residents to own their homes. All new replacement homes will be size limited.
	7.07 <i>Preserve Existing Housing Stock</i>	<i>“(…) encourage its preservation and rehabilitation through land use policies and regulations. Special efforts will be made to preserve and rehabilitate existing housing serving low, moderate and middle-income households. Special efforts will also be made to preserve and rehabilitate existing housing serving low, moderate and middle-income households and to promote a net gain in affordable and middle-income housing.”</i>	The variety in proposed housing types gives flexibility in the ability to swap out aging mobile homes. The property was purchased by the city to preserve the community as permanently affordable. A primary goal is non-displacement of residents and existing mobile homes would remain for the foreseeable future. The failing infrastructure within the development will be replaced and improved.
	7.09 <i>Housing for a Full Range of Households</i>	<i>“(…) encourage preservation and development of housing attractive to current and future households, persons at all stages of life and to a variety of household configurations. This includes singles, couples, families with children and other dependents, extended families, non-traditional households and seniors.”</i>	The proposal includes a mix of housing that can accommodate a variety of household configurations. New homes will contain 1-, 2-, and 3-bedroom units. Homes will be designed to accommodate extended families. The proposal includes one-story homes that would be conducive to populations with special needs.
	7.08 <i>Preservation and Development of Manufactured Housing</i>	<i>“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. If an existing mobile home park is found to have health or safety issues, every reasonable effort will be made to reduce or eliminate the issues, when feasible, or to help mitigate for the loss of housing through rehousing of affected households.”</i>	The proposal would preserve the affordability of the existing mobile home park and will allow for existing residents to purchase fixed-foundation homes on the site. Reasonable efforts will be made to resolve health and safety issues following annexation, including new connections to city services. There will be no loss of housing and a primary goal of the project is non-displacement of residents.

	BVCP Policy	Excerpt from BVCP	How the Proposal is Consistent with BVCP Policies
<b>Social Equity</b>	8.05 Diversity	<i>“...support the integration of diverse cultures and socio-economic groups in the physical, social, cultural and economic environments ...”</i>	The provision of affordable housing units and a variety of housing choices will help support socioeconomic diversity.

**Key Issue #2: Is the proposed annexation consistent with State statutes and BVCP policies, including BVCP Policy 1.16, Annexation?**

The applicant is requesting annexation by petition as provided by state law. Annexations must comply with Colorado Revised Statutes (C.R.S.), Article 12 of Title 31. Additionally, annexations must comply with city policies 1.07 *Adapting to Limits on Physical Expansion*, 1.09 *Growth Requirements*, 1.12 *Definition of Comprehensive Planning Areas I, II & III*, and 1.16 *Annexation* in the BVCP. Staff finds that the proposed annexation is consistent with state statutes and city policies, as described in detail below.

Staff has reviewed the annexation petition for compliance with Sections 31-12-104, 31-12-105, and 31-12-107, C.R.S. and finds that the application is consistent with the statutory requirements, as affirmed by the criteria below (refer to [Attachment B](#) for the Annexation Petition):

- An annexation petition was filed meeting the requirements of Section 31-12-107, C.R.S.
- Landowners of more than 50 percent of the area who comprise more than 50 percent of the landowners in the area have petitioned to annex, excluding any public streets and alleys and any land owned by the annexing municipality.
- The property is located within Area II of the BVCP planning area and is said to be urban in nature. The area is integrated with the city.
- The annexation petition has been filed with the City Clerk of the City of Boulder.
- There is a community interest between the property proposed for annexation and the city of Boulder, the property borders City of Boulder development, is developed with a mobile home park, and is capable of being integrated into the City of Boulder. As more than one-sixth of the perimeter of the area proposed to be annexed is contiguous with the annexing municipality, a community of interest is presumed.
- The subject property does not include any area included in another annexation proceeding involving a municipality other than the city of Boulder.
- The annexation would not remove the property from one school district and add it to another.
- The property has more than one-sixth contiguity with the City of Boulder. The property borders the Boulder city limits on all sides and is considered an enclave.
- The annexation would not have the effect of extending the City of Boulder’s boundaries any further than three miles from any point of the existing City boundaries in any one year.

The project is consistent with the following BVCP policies:

	BVCP Policy	Excerpt from BVCP	How the Annexation is Consistent with BVCP Policies
Growth Management	1.07 <i>Adapting to Limits on Physical Expansion</i>	<i>“As the community expands to its planned physical boundaries, the city and county will increasingly emphasize preservation and enhancement of the physical, social and economic assets of the community. Cooperative efforts and resources will be focused on maintaining and improving the quality of life within defined physical boundaries, with only limited expansion of the city.”</i>	The annexation agreement has been written to enhance the physical, social, and economic assets of the community. The annexation would preserve existing housing on the property as permanently affordable housing units. The project would improve quality of life for residents of the area.
	1.09 <i>Growth Requirements</i>	<i>“The overall effect of urban growth must add significant value to the community, improving quality of life. The city will require development and redevelopment to provide significant community benefits, achieve sustainability goals for urban form and to maintain or improve environmental quality as a precondition for further housing and community growth.”</i>	The annexation would provide significant community benefits, primarily in the form of permanently affordable housing. The residential units are intended to be available to low, moderate, and middle income residents, priced to be affordable based on household income. Other community benefits include no involuntary displacement of the current residents, improved traffic/pedestrian access and circulation, and flood mitigating storm water management.
Annexation	1.16 <i>Annexation</i>	<i>“a. Annexation will be required before adequate facilities and services are furnished.”</i>	City services will be available to the property with annexation. The purpose of the annexation is to upgrade the existing service lines inside the park. Due to the provisions in the out-of-city utility agreement, annexation is necessary before any utility work can be completed
		<i>“b. The city will actively pursue annexation of county enclaves, substantially developed properties along the western boundary below the Blue Line and other substantially developed Area II properties. County enclave means an unincorporated area of land entirely contained within the outer boundary of the city. Terms of annexation will be based on the amount of development potential as described in (c), (d) and (e) of this policy. (...)”</i>	The property is considered a county enclave.

	BVCP Policy	Excerpt from BVCP	How the Annexation is Consistent with BVCP Policies
<b>Annexation</b>	1.16 Annexation	<p><i>“d. In order to reduce the negative impacts of new development in the Boulder Valley, the city will annex Area II land with significant development or redevelopment potential only if the annexation provides a special opportunity or benefit to the city. For annexation consideration, emphasis will be given to the benefits achieved from the creation of permanently affordable housing. (...)”</i></p> <p><i>“e. Annexation of substantially developed properties that allow for some additional residential units or commercial square footage will be required to demonstrate community benefit commensurate with their impacts. Further, annexations that resolve an issue of public health without creating additional development impacts should be encouraged.”</i></p>	<p>Additional development potential exists for the property under RM-2 zoning. The annexation will allow for upgrades to the existing service lines inside the park and will provide a critical public health benefit by providing safe and quality drinking water and reducing possible public health threats. Staff finds that the annexation respects existing lifestyles and densities.</p> <p>The proposal is to provide 100% affordable housing. A long-term land lease would allow residents to own their homes. All new replacement homes will be size limited and deed restricted. The project would serve an important aspect of housing needs in the Boulder community. The project would have mixed-income affordability from very low to moderate income. Provided housing choices are suitable for families and multiple generations. Staff believes that these characteristics of the development provide sufficient community benefit and will help the city to provide diverse housing choices.</p> <p>Other community benefits include no involuntary displacement of the current residents, improved traffic/pedestrian access and circulation, and flood mitigating storm water management.</p>

**Key Issue #3: Does the proposed change to the BVCP land use map to Medium Density Residential (MR) meet the applicable criteria?**

As described above, the project would require a land use map change since the proposal includes fixed foundation homes, which are not consistent with the Manufactured Housing land use designation or zoning. A land use map change may be considered concurrent with a request for annexation. Land use map changes for properties located in Area II require approval of the Planning Board and City Council. Since this property is an enclave, the city's decision is not subject to call-up by the Board of County Commissioners of Boulder County. Applications for land use designation changes that are made outside of a mid-term or five-year BVCP update must be found to be consistent with BVCP policies, compatible with the surrounding area, and satisfy several other factors listed in Appendix C of the BVCP (referenced below).

The Medium Density designation is characterized by a mix of housing types (from single family to attached units) that are generally situated near neighborhood and community shopping areas or along some of the major arterials of the city. Refer to description in the BVCP on the following page.

	<p><b>Medium Density Residential (MR)</b></p>	<p><b>Characteristics and Locations:</b> MR is characterized by a variety of housing types. Medium-density areas are generally situated near neighborhood and community shopping areas or along some of the major arterials of the city.</p> <p><b>Uses:</b> Consists of a variety of housing types ranging from single-family detached to attached residential units such as townhomes, multiplexes and some small lot detached units (e.g., patio homes), not necessarily all on one site.</p> <p><b>BVCP Density/Intensity:</b> 6 to 14 dwelling units per acre</p>
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To be eligible for a Land Use Map change, the city must find that that the proposed change:

***on balance, is consistent with the policies and overall intent of the comprehensive plan;***

Staff finds that the proposed Land Use Map change is, on balance, consistent with the policies and overall intent of the comprehensive plan, as detailed in Key Issue #1 above.

The site was historically designated Medium Density Residential. The Manufactured Housing designation was created as part of the 2000 Major Update to the Boulder Valley Comprehensive Plan. At that time four manufactured home parks in unincorporated Boulder County were designated as Manufactured Housing to “signal the city and county’s intent to preserve the existing mobile home parks”. The purpose of the Manufactured Housing land use designation is to preserve existing manufactured home parks to preserve affordable housing options within the Boulder Valley.

A change to Medium Density Residential would be compatible with adjacent land uses and development and is consistent with previous city decisions. The land use designation for the Rosewood site (directly to the west) changed from Medium Density Residential to Manufactured Housing in 2000, and then back to Medium Density Residential in 2008. The primary reason for the change back to Medium Density Residential was to have the same land uses as a neighboring project that included a variety of housing options. The Rosewood site now includes detached single family homes and duplexes with a similar character as those of the Ponderosa proposal.

The OS-O designated portion of the property was intended to cover the riparian area of Fourmile Canyon Creek. The city-owned portion of the creek is managed as part of the Greenways Program as a multi-use path and flood way. The change to the OS-O designated portion of the site has been reviewed by city staff, including Open Space and Mountain Parks (OSMP). OSMP staff supported this land use change because the property’s OS-O lands do not significantly support or provide for any of the open space purposes listed under Article XII, Sec. 176 of the City Charter. The OS-O areas that could support and provide for open space purposes are already owned by the city. Thus, the city’s ownership and management of the Fourmile Canyon Creek riparian area through the Greenways Program honors the intent of the original designation.

***would not have significant cross-jurisdictional impacts that may affect residents, properties or facilities outside the city;***

Given the location of this Enclave property, staff finds that the proposed Land Use Map change meets this criterion. The Boulder County Land Use Department also indicated support for this application. Refer to [Attachment H](#).

**would not materially affect the land use and growth projections that were the basis of the comprehensive plan;**

The Manufactured Housing Land Use Designation does not include a standard range for density or intensity. Therefore, mobile home counts are audited using data provided by the Boulder County Assessor for use in the city's dwelling unit growth projections.

The Medium Density Land Use Designation anticipates 6 to 14 dwelling units per acre, which is consistent with the existing density. The increase from the existing 68 mobile homes to 73 single family homes will not materially affect the land use and growth projections.

**does not materially affect the adequacy or availability of urban facilities and services to the immediate area or to the overall service area of the City of Boulder;**

The annexation application and Site Review has been reviewed by applicable city departments to ensure adequate public facilities.

**would not materially affect the adopted Capital Improvements Program of the City of Boulder; and**

Staff finds that the proposal will not materially affect the adopted Capital Improvement Program.

**would not affect the Area II/Area III boundaries in the comprehensive plan.**

The site is considered an Enclave within Area II of the BVCP and therefore, would not affect the Area II/Area III boundaries of the BVCP.

Based on the analysis above, the city has determined that the BVCP land use map change is appropriate. While county approval is not required for the proposed land use map change, the Boulder County Land Use Department was forwarded the request for review. A letter from the county indicates support for the land use designation change as part of the project. Refer to [Attachment H](#).

**Key Issue #4: Is the proposed zoning of RM-2 appropriate for the site considering the context of the surrounding area?**

Initial zoning is established pursuant to Section 9-2-18, "Zoning of Annexed Land", B.R.C. 1981. If a property is annexed, zoning will be established consistent with the goals and Land Use Map of the BVCP. As described above, the application proposes a land use designation change for the property to Medium Density Residential, which anticipates a density of six to 14 units per acre. As described above, staff finds that the proposed Land Use Map change meets the criteria for such change. The proposed zoning assumes approval of the Land Use Map change to Medium Density Residential. Given the proposed housing mix and anticipated density, the only applicable zoning districts in this density range are the Residential Medium – 1, 2 or 3 zoning districts.

The proposed zoning of Residential Medium-2 is consistent with a land use map designation of Medium Density Residential. The RM-2 zoning district is described as: "*Medium density residential areas primarily used for small-lot residential development, including without limitation, duplexes, triplexes, or townhouses, where each unit generally has direct access at ground level*" (Section 9-5-2(c)(1), B.R.C. 1981). Per the use table in the land use code, the RM-2 zone district has more allowances for a variety of residential uses than the RM-1 or RM-3 districts. In addition, the intensity of development in the RM-2 and RM-3 zones are controlled by a minimum lot area per dwelling unit of 3,500 square feet. Intensity in the RM-1 district is controlled by the provision of 3,000 square feet of open space per dwelling unit. Staff finds that the use and density controls of the RM-2 district more closely align with the vision for the area in the North Boulder Subcommunity Plan and allow for development that is compatible with the surrounding neighborhood. The proposed RM-2 zoning is a logical extension of the existing RM zoning to the west and south, as represented on the zoning map in **Figure 6**. The Foothills

Community and 1000 Rosewood developments to the west share a RM-1 designation. RM-2 zoning is located to the west across Broadway.

### Key Issue #5: Is the project consistent with the North Boulder Subcommunity Plan?

The subject property is within the Union-Utica neighborhood of the North Boulder Subcommunity Plan (NBSP). The project is subject to the goals and objectives of the plan, development guidelines, and the County Enclave Development Guidelines in the plan. The NBSP identified Ponderosa Mobile Home Park as needing substantial public funding to correct “physical deficiencies”, like shallow sewer lines to individual lots and unpaved streets.

In general, the project addresses the goals and policies expressed in the North Boulder Subcommunity Plan. The proposed medium density residential development and architectural intent presented in the plans would be appropriate for the development in the context of the 1000 Rosewood development and the North Boulder Subcommunity. In addition, housing was anticipated in this area by the NBSP. Per section 11, *“(ii) Housing near the Broadway corridor, across from the Village Center, should be developed at mixed densities, at an overall average density equivalent to low and medium density residential.”*

### Goals and Objectives.

The goals found in [the NBSP](#) state that new neighborhoods should be designed by taking into account the need for more affordable housing, walking distance to transit and park facilities, connections to existing and future pedestrian and bike path systems, and the scale and positive architectural attributes of adjacent housing. The development will provide much needed affordable housing for a range of incomes. The site has easy access to public transit, bike and pedestrian corridors, and open space. In addition, the design includes frequent and convenient connections for pedestrians and bicyclists, which link to the city-wide system.

Page 9 of [the NBSP](#) defines the objectives for future development in the North Boulder Subcommunity. In general, the development is consistent with the following objectives for residential areas:

- Connections are provided to the larger community and the site design integrates into the existing network of streets. The transportation network promotes the use of alternate modes of transportation and the site has easy access to public transit, bike, and pedestrian corridors.
- The site design and proposed homes are compatible with the surrounding context. New homes will be compatible with the adjacent residential development in terms of style, colors, materials, and building orientation.
- The project will provide a diversity of housing types. There are a variety of unit types that contribute to overall diversity in housing types, sizes, and price ranges.

### Development Guidelines.

The project is subject to the Development Guidelines for the Union-Utica neighborhood and Development Guidelines for All Neighborhoods. The development is consistent with the following guidelines as discussed below:

- The project contributes to a diversity of housing types, sizes, and price ranges.
- Street trees will be provided along the streets, where possible.
- Homes on Cherry Avenue are positioned so that front doors and front yards face the street. Homes on the interior of the site address a common open space pedestrian spine and enhance the pedestrian experience.
- Contains a variety of building designs that include human scale features such as porches and railings.
- Site is designed so that the fronts of buildings face the street or one another, and backs face one another.

- Includes well-placed pedestrian and bicycle trails that connect to neighborhood amenities, including parks and trails.
- Homes are positioned close to the street on Cherry Avenue and the westernmost internal drive (Rosewood Lane) to create a more pedestrian friendly atmosphere. The applicant has requested setback modifications in these areas.
- The site plan encourages walking, biking, and transit by providing safe, comfortable, and convenient connections.
- Design includes narrow streets to better serve pedestrians and to help calm traffic.
- An alley is used on the south end of the site to reduce curb cuts and sidewalk interruptions.



Figure 18: Perspective of Community from Corner of 10<sup>th</sup> St. and Cherry Ave.

**Key Issue #6: Does the project meet the applicable Site Review criteria in Section 9-2-14(h), B.R.C. 1981?**

Staff finds that the project meets all applicable Site Review criteria. The project is compatible, contextual, well scaled, and includes the provision high-quality housing. Staff finds that the general layout of the development is appropriate given the objectives of the Ponderosa Resolution. The site design qualifies as an infill development that is sensitive to the surrounding development. The proposal is compatible with the character of the neighborhood. The provided open space is appropriate for both passive and active uses and would provide a relief to the density, both within the project and to the surrounding development. The requested setback modifications would contribute to creating a building forward design that enhances the pedestrian experience along Cherry Avenue and allows for alley-loaded homes on the western edge. Additionally, the architectural design is compatible with and sensitive to the character of the area. The carriage homes, duplex, and triplexes that are proposed as part of Phase I will be built per the submitted architectural drawings. Design guidelines have been submitted for the single-family, duplex, triplex, and fourplex units on the interior of the site, to ensure predictability and design compatibility. The guidelines include unit typologies and options, paint color, siding, trim, and roofing options, new unit spacing, exterior improvements, and carport, porch, and fencing options.

The street system has been minimized for the development as much as possible, given the general site layout. Staff finds that the amount of parking is appropriate given the population served by the development. The development would have a compact design with buildings with prominent porches and entries oriented directly to streets and open spaces. Given these architectural and site design aspects, the project would relate well to the streetscape and lend strongly to pedestrian interest. For a more complete consistency analysis please refer to the site review criteria checklist in [Attachment E](#).

#### IV. PUBLIC COMMENT AND PROCESS

Staff received four public comment letters in response to the required public notices and sign postings, which are found in [Attachment F](#). These applications followed a number of community engagement events facilitated by the Housing Division and their consultant on the project. The community outreach is described in the "Background" section above.

#### V. PLANNING BOARD ACTION

##### BVCP AMENDMENT

Staff Findings and Recommendation:

Planning staff finds that the application to change the land use map of the BVCP meets the criteria for a land use map change under the BVCP, is consistent with BVCP policies, and the Medium Density Residential designation is compatible with the surrounding area. Therefore, staff recommends Planning Board consideration of this matter and action in the form of the following motion:

*Motion to approve case no. LUR2019-00015, a Boulder Valley Comprehensive Plan (BVCP) land use map designation change for the property at 4475 Broadway from Manufactured Housing and Open Space, Other to Medium Density Residential.*

##### ANNEXATION AND INITIAL ZONING

Staff Findings and Recommendation:

1. Staff finds the proposed annexation to be consistent with State statutes.
2. Staff finds the proposed annexation to be consistent with the BVCP.
3. Staff finds the application for initial zoning of 4475 Broadway as Residential Medium -2 (RM-2) is consistent with the Boulder Valley Comprehensive Plan goals and land use designation of Medium Density Residential. The proposed land use designation is also compatible with surrounding properties.

Therefore, staff recommends that Planning Board adopt the following Motion:

*Motion to recommend to City Council approval of the proposed annexation with initial zoning of Residential-Medium 2 (RL-2) for 4475 Broadway pertaining to case number LUR2019-00016, incorporating this staff memorandum as findings of fact, subject to the recommended conditions of approval for the annexation as provided for in the memorandum of understanding in Attachment C.*

## SITE REVIEW

### Staff Findings and Recommendation:

Planning staff finds that the application meets the Site Review criteria found in Land Use Code Section 9-2-14(h), B.R.C., 1981. Therefore, staff recommends Planning Board consideration of this matter and action in the form of the following motion:

*Motion to approve Site Review case no. LUR2019-00015 incorporating the staff memorandum and the attached Site Review Criteria Checklist as findings of fact, and subject to the conditions of approval recommended in the staff memorandum.*

## CONDITIONS OF APPROVAL

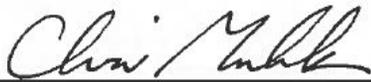
1. The Applicant shall ensure that the **development shall be in compliance with all approved plans prepared by the Applicant** on July 29, 2019 and the Applicant's written statement dated July 29, 2019 ("Written Statement") on file in the City of Boulder Planning Department, except to the extent that the development may be modified by the conditions of this approval.
2. The Applicant shall construct a six-foot wide sidewalk on the west side of 10<sup>th</sup> Street between Ponderosa Avenue and Cherry Avenue. The sidewalk shall be located adjacent to the front-end of the head-in parking along 10<sup>th</sup> Street.
3. The Applicant shall construct a five-foot wide sidewalk on the south side of the five vehicle parking area north of Rosewood Lane.
4. Prior to a building permit application for any new dwelling unit, the Applicant shall submit, and obtain City Manager approval of, a Technical Document Review application for the following items:
  - a. **Final architectural plans**, including material samples and colors, to ensure compliance with the intent of this approval and compatibility with the surrounding area. The architectural intent shown on the plans prepared by the Applicant on July 29, 2019 and the Design Guidelines prepared on June 17, 2019 are acceptable. Planning staff will review plans to ensure that the architectural intent is performed.
  - b. A **final site plan** that includes detailed floor plans and section drawings.
  - c. A **final utility plan** meeting the City of Boulder Design and Construction Standards.
  - d. A **final storm water report and plan** meeting the City of Boulder Design and Construction Standards.
  - e. **Final transportation plans** meeting the City of Boulder Design and Construction Standards for all transportation improvements. These plans must include, but are not limited to: street plan and profile drawings for both the public and private streets; plan drawings showing vertical slope and cross-slope for both the public and private sidewalks; street cross-sectional drawings every 25-feet for Cherry Avenue and 10<sup>th</sup> Street public right-of-way improvements; signage and striping plans in conformance with Manual on Uniform Traffic Control Devices (MUTCD) standards, detail drawings for the traffic

calming measures (engineering treatments) to be constructed, transportation detail drawings, geotechnical soils report, and pavement analysis.

- g. A **detailed landscape plan**, including size, quantity, and type of plants existing and proposed; type and quality of non-living landscaping materials; any site grading proposed; and any irrigation system proposed, to ensure compliance with this approval and the City's landscaping requirements. Removal of trees must receive prior approval of the Planning Department. Removal of any tree in City right of way must also receive prior approval of the City Forester.
  - h. A **detailed outdoor lighting plan** showing location, size, and intensity of illumination units, indicating compliance with Section 9-9-16, B.R.C. 1981.
  - i. A **detailed shadow analysis** to ensure compliance with the City's solar access requirements of Section 9-9-17, B.R.C. 1981.
5. Prior to building permit application for any new dwelling unit, the Applicant shall submit a Land Use Review **application for a Preliminary Plat** and a Technical Document Review **application for a Final Plat**, subject to the review and approval to the City Manager and execute a subdivision agreement meeting the requirements of Chapter 9-12, "Subdivision," B.R.C. 1981, and which provides for the following:
- a. Elimination of existing parcel lines within the Property.
  - b. Dedication of the following easements:
    - i. A 20-foot wide public access easement for the travel-way section of each of the following internal streets: Rosewood Lane, Ponderosa Avenue, 10<sup>th</sup> Street (north of Cherry Street), Cherry Avenue, and Ponderosa Court;
    - ii. A 20-foot wide public access easement for the extension of the existing east/west alley between 9<sup>th</sup> Street and Rosewood Lane;
    - iii. A 6-foot wide public access easement for the north-south pedestrian path along the west side of 10<sup>th</sup> Avenue;
    - iv. A 6-foot wide public access easement for the north-south pedestrian path adjacent to the west of the community building;
    - v. A 6-foot wide public access easement for the east-west sidewalk on the north side of Cherry Avenue, east of 10<sup>th</sup> Street;
    - vi. A 5-foot wide public access easement for the east-west sidewalk between Rosewood Avenue on the north corner of the Property to the north-south sidewalk connection described above.
  - c. Creation of a lot or outlot for the area of the Property that is east of Ponderosa Court to be owned by the City of Boulder.
6. Prior to issuance of a building permit, the Applicant shall submit a **financial guarantee**, in a form acceptable to the Director of Public Works, in an amount equal to the cost of providing eco-passes to the residents of the development for three years after the issuance of a certificate of occupancy for each dwelling unit as proposed in the Applicant's Written Statement.

7. The Applicant must begin and complete the approved development consistent with the Applicant's **phasing plan** dated July 29, 2019 on file with the City of Boulder Planning Department.
8. The Applicant shall be responsible for maintaining all stormwater quality improvements and stormwater detention improvements, including but not limited to permeable parking lot paving.
9. This approval is conditioned upon approval of a change to the Boulder Valley Comprehensive Plan land use map designation for the Property from Manufactured Housing and Open Space – Other to Medium Density Residential, and annexation of the Property to the City of Boulder with an initial zoning of Residential-Medium 2.

**Approved By:**



---

**Chris Meschuk, Asst. City Manager / Interim Director of Planning  
Department of Planning**

**Attachments**

- Attachment A: [Annexation Map](#)
- Attachment B: [Applicant's Annexation Petition](#)
- Attachment C: [Draft Memorandum of Understanding in lieu of Annexation Agreement](#)
- Attachment D: [Applicant's Submittal Materials](#)
- Attachment E: [Site Review Criteria Analysis](#)
- Attachment F: [Public Comment Received](#)
- Attachment G: [Ponderosa Resolution](#)
- Attachment H: [Boulder County Referral Letter](#)

# ANNEXATION MAP

4475 BROADWAY  
 A PARCEL OF LAND LOCATED IN THE NORTHEAST QUARTER OF SECTION 13,  
 TOWNSHIP 1 NORTH, RANGE 71 WEST OF THE 6TH P.M.,  
 COUNTY OF BOULDER, STATE OF COLORADO  
 TOTAL AREA = 6.298 ACRES

## LEGEND

- PUBLIC LAND CORNER FOUND
- FOUND #5 REBAR WITH 1" RED PLASTIC CAP STAMPED SCOTT COX ASS PLS 24302 (P&C) (UNLESS NOTED)
- FOUND MONUMENT AS NOTED
- RECORD COURSE PER LEGAL
- MEASURED COURSE PER THIS SURVEY
- PROPERTY CONTIGUOUS TO EXISTING CITY OF BOULDER LIMITS

TOTAL PERIMETER OF AREA TO BE ANNEXED = 2,579.78 FEET  
 ONE SIXTH OF TOTAL PERIMETER = 429.96 FEET  
 PERIMETER CONTIGUOUS TO EXISTING CITY LIMITS = 2,579.78 FEET

OWNER: CITY OF BOULDER  
 1777 BROADWAY  
 BOULDER, COLORADO 80306

SURVEYOR: SCOTT, COX & ASSOCIATES, INC.  
 1530 55TH STREET  
 BOULDER, COLORADO 80303

## LEGAL DESCRIPTION

A TRACT OF LAND LOCATED IN THE NORTHEAST 1/4 OF SECTION 13, TOWNSHIP 1 NORTH, RANGE 71 WEST OF THE 6TH P.M., COUNTY OF BOULDER, STATE OF COLORADO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID SECTION 13, WHENCE THE EAST LINE NE 1/4 OF SECTION 13 BEARS S00°04'00"E, SAID LINE FORMING THE BASIS OF BEARINGS FOR THIS DESCRIPTION; THENCE ALONG SAID EAST LINE S00°04'00"E, 872.00 FEET; THENCE N90°00'00"W 40.00 FEET TO THE WESTERLY RIGHT OF WAY OF N. BROADWAY (COLORADO STATE HIGHWAY 7) AND THE TRUE POINT OF BEGINNING;

THENCE N59°56'23"W, 197.13 FEET; THENCE S00°04'00"E, 202.29 FEET; THENCE N89°58'34"W 350.65 FEET TO THE NORTHERLY RIGHT OF WAY OF 10TH ST. PER RECEPTION NO. 01575389 RECORDED 1/9/96; THENCE ALONG SAID NORTHERLY RIGHT OF WAY THE FOLLOWING THREE COURSES: 1) NORTHWESTERLY ALONG THE ARC OF A CURVE CONCAVE SOUTHWESTERLY HAVING A CENTRAL ANGLE OF 39°36'39" A RADIUS OF 98.00 FEET (CHORD BEARS N70°10'17"W, 66.41') AN ARC DISTANCE OF 67.75 FEET; 2) THENCE N89°58'34"W, 34.68 FEET; 3) THENCE S87°28'48"W, 164.87 FEET TO THE EASTERLY LINE OF 1000 ROSEWOOD SUBDIVISION; THENCE ALONG SAID EASTERLY LINE N00°04'00"W, 538.59 FEET; THENCE CONTINUING N00°04'00"W, 60.00 FEET; THENCE S60°43'52"E, 186.98 FEET; THENCE S59°56'23"E, 716.83 FEET TO SAID WESTERLY RIGHT OF WAY OF N. BROADWAY; THENCE ALONG SAID WESTERLY RIGHT OF WAY S00°04'00"E, 60.00 FEET TO THE TRUE POINT OF BEGINNING.

SAID PARCEL OF LAND CONTAINS 6.298 ACRES.

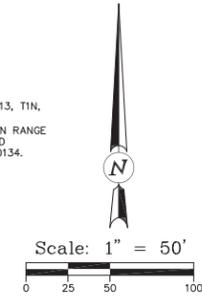
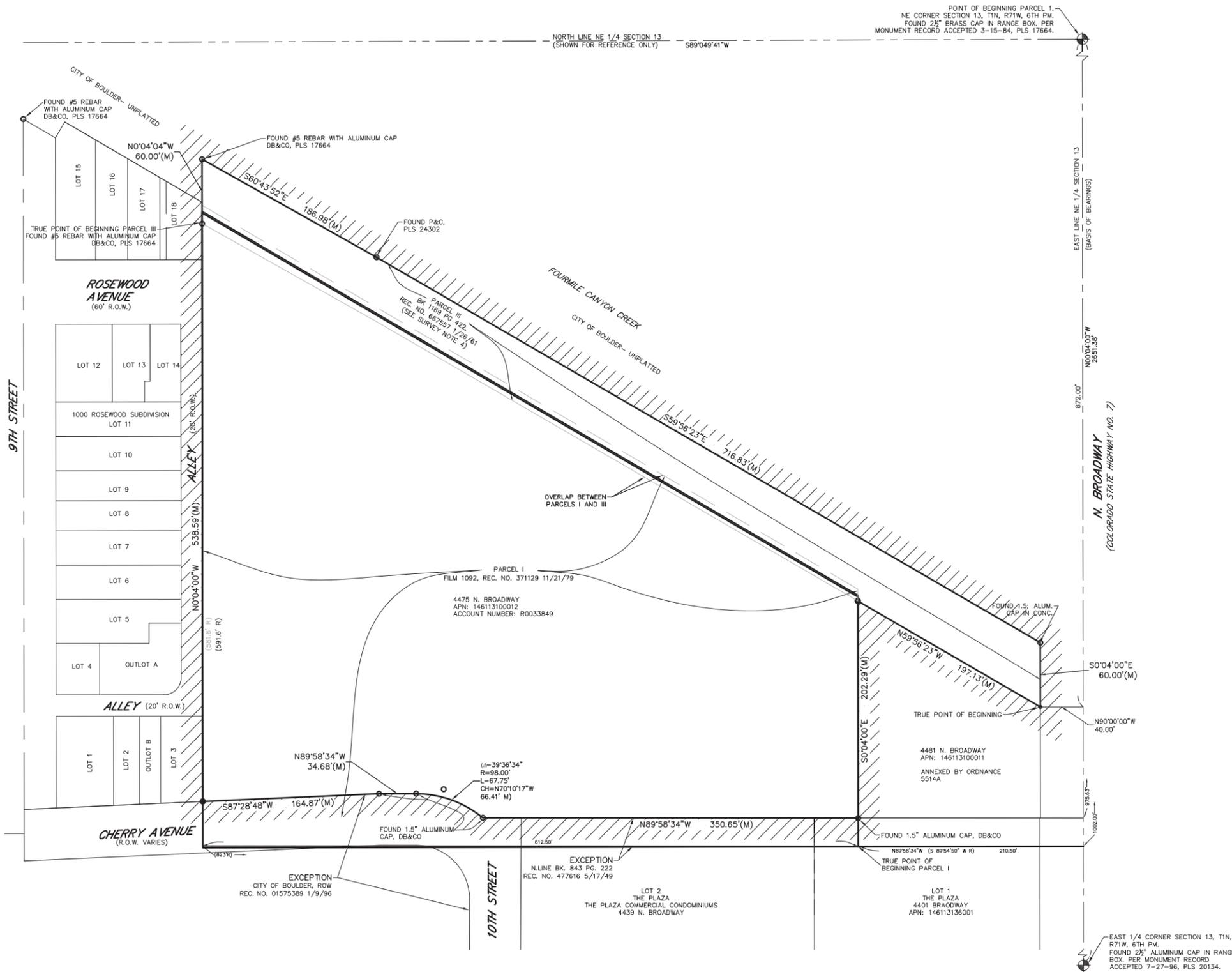
## SURVEY NOTES

- THIS MAP IS NOT A LAND SURVEY PLAT OR AN IMPROVEMENT SURVEY PLAT. THE PURPOSE OF THIS MAP IS TO SHOW THE AREA TO BE ANNEXED TO THE CITY OF BOULDER, COLORADO.
- THIS ANNEXATION IS BASED ON AN ALTA/NSPS LAND TITLE SURVEY PREPARED BY SCOTT, COX & ASSOCIATES, INC. DRAWING NO. 17298A-1 DATED 07/28/17.
- NOTICE: ACCORDING TO COLORADO LAW, YOU MUST COMMENCE ANY LEGAL ACTION BASED ON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT, MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON. CRS-13-80-105 (3)(c).
- PARCEL III: THE DEED RECORDED AT BOOK 1169, PAGE 422 ON 1/26/61 DEDICATED RIGHT-OF-WAY TO THE PUBLIC AND THE COUNTY OF BOULDER. HOWEVER, THIS DEDICATION WAS NEVER ACCEPTED AS RIGHT-OF-WAY BY BOULDER COUNTY PER BOULDER COUNTY STAFF.

## CERTIFICATION

THIS IS TO CERTIFY THAT THIS MAP WAS MADE UNDER MY DIRECT REPRESENTATION, SUPERVISION AND CHECKING AND THAT IT IS A TRUE AND CORRECT REPRESENTATION OF THE AREA TO BE ANNEXED TO THE CITY OF BOULDER, COLORADO, AND THAT AT LEAST ON SIXTH (1/6) OF THE BOUNDARY OF SAID PARCEL IS CONTIGUOUS TO THE PRESENT CITY OF BOULDER, COLORADO.

A. JOHN BURRI, PLS 24302  
 FOR AND ON BEHALF OF  
 SCOTT, COX & ASSOCIATES, INC.



**SCOTT, COX & ASSOCIATES, INC.**  
 consulting engineers • surveyors  
 1530 55th Street • Boulder, Colorado 80303  
 (303) 444 - 3051

Designed by	AJB	Date	08/23/19	Scale	1"=50'	Drawing no.	17298D-1	Sheet	1
Drawn by	JAS	Revision		Description		Date		Project no.	17298C
Checked by	AJB								

**ANNEXATION PETITION**  
Submit with your application.

**Annexation Information**

Location of property to be annexed: 4475 Broadway

Legal Description: (see attached)

Size of property: 6.29 acres Requested Zoning: RM-2

**Impact Report**

If the area proposed for annexation is more than ten acres in size, an annexation impact report as required by state law (31-12-105.5, C.R.S.) must be submitted to the Planning Department prior to the first reading of the ordinance annexing the subject property by City Council. The Board of County Commissioners may waive this requirement. If so, a letter from the Board must be submitted to the Planning Department.

**Districts**

Please check those districts in which the property proposed for annexation is included:

- Boulder Valley School District
- Left Hand Water District
- St. Vrain School District
- Other (list) \_\_\_\_\_
- Boulder Rural fire District \_\_\_\_\_
- Rocky Mountain Fire District \_\_\_\_\_

**Property Owners**

List below all owners or lienholders of the property proposed for annexation (please print):

1. City of Boulder
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

2011 FEB 19 PM 3:29

**Please Note:**

No person shall petition to the city of Boulder for annexation of any real property until he has first read and thereafter follows these instructions in the execution of the within petition:

1. Every person signing the within annexation petition must personally insert the information required on the signature page(s) attached to the petition.
2. The person or persons who circulate the within petition must witness the signatures of every person signing this petition and so certify by executing the affidavit attached on the last page of this petition.
3. The following definitions of terms shall be applicable throughout this petition and every subsequent step of the annexation proceeding commenced pursuant to this petition:

a. Landowner: means the owner in fee of any undivided interest in a given parcel of land. If the mineral estate has been severed, the landowner is the owner in fee of an individual interest in the surface estate and not the owner in fee of an individual interest in the mineral estate. In the case of multiple landowners, such as tenants in common or joint tenants, only one such landowner need petition for annexation, and the signature of one such landowner shall be sufficient, provided however, that said signing landowner had become liable for taxes in the last preceding calendar year or is exempt by law from payment of taxes, and provide further, that no other owner in fee of an individual interest of the same property objects to the annexation of the said property within 14 days after the filing of the annexation petition by submitting a written statement of his objections to the City Council.

A purchaser of real property shall be deemed a landowner for the purpose of an annexation petition if:

- (1) The said purchaser is purchasing the land pursuant to a written contract duly recorded, and
- (2) The said purchaser has paid the taxes thereon for the next preceding tax year.

A corporation, non-profit, owning land shall be deemed a landowner, and the same persons authorized to convey land for the corporation shall sign the within petition on behalf of such corporation.

- b. Nonresident Landowner: means any person owning property in the area proposed to be annexed, who is not a qualified elector as herein below defined, and who is at least eighteen (18) years of age as attested to by a sworn affidavit.
- c. Identical Ownership: means a situation where each owner has exactly the same degree of interest in a separate parcel of two or more parcels of land.
- d. Contiguous: means that one-sixth of the boundary of the territory proposed for annexation and the city limits must coincide. Contiguity as referred to in this petition or subsequent annexation proceedings is not affected by the existence of a platted street or alley, public or private transportation right-of-way or area, or a lake, reservoir, stream, or other natural or artificial waterway between the city limits of the city of Boulder and the territory to be annexed.

4. This petition must be filed with the City Clerk of the city of Boulder.

5. This petition should be filed in the following manner:
- a. All blanks herein contained should be filled out and completed.
  - b. Each signer shall, before signing said petition, carefully read the contents hereof.
  - c. The signatures attached to this petition must have been signed within 180 days immediately preceding the filing of the said petition with the City Clerk.
  - d. After filing of the petition, no person having signed said petition shall thereafter be permitted to withdraw his/her signature from said petition.
  - e. This petition shall be accompanied by at least four copies of an annexation map containing the following information:
    1. A written legal description of the boundaries of the area proposed to be annexed.
    2. A map showing the boundaries of the area proposed to be annexed.
    3. Within the boundaries of the area proposed to be annexed, the location of each ownership tract in unplatted land and, if part or all of the area has been platted, the boundaries and the plat numbers of the plots or of the lots and blocks shall be shown.
    4. The portion of the boundaries of the area proposed to be annexed which is contiguous to the city limits of the city of Boulder, as the same exist at the time this annexation petition is to be filed, must be shown and the dimensions thereof indicated.

**Submit with your application.**

**TO THE CITY COUNCIL OF THE CITY OF BOULDER, COLORADO, GREETINGS:**

The undersigned hereby petition(s) the city of Boulder to annex to the city of Boulder the territory shown on the map(s) attached hereto and described on the attachment hereto:

This Petition is signed by landowners qualified to sign. It is intended that this Petition be a one hundred percent (100%) petition for annexation as described in C.R.S. 1973, Section 31-12-107(l)(g), (as amended).

In support of this petition, the undersigned state(s) and allege(s) as follows, to wit:

1. That it is desirable and necessary that the above described territory be annexed to the city of Boulder.
2. That petitioners are landowners of one hundred percent (100%) of the territory, excluding streets and alleys, herein proposed for annexation to the city of Boulder.
3. That no less than one-sixth of the aggregate external boundaries of the above described territory hereby petitioned to the city of Boulder is contiguous to the city limits of the city of Boulder.
4. That a community of interest exists between the above described territory and the city of Boulder, And that the same is urban, or will be urbanized in the near future, and further that the said territory is integrated or is capable of being integrated in the city of Boulder.
5. That in establishing the boundaries of the above described territory, no land held in identical ownership, whether consisting of one tract or parcel of real estate or two or more contiguous tracts or parcels of real estate, has been divided into separate parts or parcels without the written consent of the landowner or landowners thereof, except and unless such tracts or parcels are already separated by a dedicated street, road or other public way.
6. That in establishing the boundaries of the above described territory, no land held in identical ownership, whether consisting of one tract or parcel of real estate or two or more contiguous tracts or parcels of real estate comprising twenty acres or more which, together with the buildings and improvements situate thereon, have an assessed valuation in excess of \$200,000 for ad valorem tax purposes for the year next preceding the filing of the within petition for annexation, has been included within the above.
7. That the above described territory does not include any area which is the same or substantially the same area in which an election for an annexation to the city of Boulder was held within the twelve months preceding the filing of this petition.
8. That the above described territory does not include any area included in another annexation proceeding involving a city other than the city of Boulder.

9. That at least four copies of an annexation map setting forth with reasonable certainty a written legal description of the boundaries of the area proposed to be annexed, a delineation of the outer boundaries of the above described territory, and the location of each ownership, tract and/or the boundaries and the plat numbers of plats and lots and blocks, the portion of the boundary contiguous with the existing city limits of the city of Boulder, and the dimensions of said contiguous boundary, all upon a material and of a size suitable for recording or filing with the City Clerk of the city of Boulder, and the dimensions of said contiguous boundary, all upon a material and of a size suitable for recording or filing with the City Clerk of the city of Boulder, accompany, have been attached hereto and hereby constitute a part of this petition.
10. That the above described territory is not presently a part of any incorporated city, city and county, or town.
11. That the above area described will (not) result in the detachment of area from any school district and the attachment of the same to another school district (and the resolution of school board of the district to which the area will be attached approving this annexation request).

ANNEXATION PETITION

Signature of petitioners requesting annexation of property to the city of Boulder, Colorado

Date of signature of each petitioner

Mailing address of each petitioner

Description of property included within the area proposed for annexation owned by each person signing this petition. (Attach separate sheet, if necessary).

*(Tina S Brautigam)*

City Manager

2-15-19

City of Boulder  
1777 Broadway  
Boulder, CO 80302

SEE LEGAL DESCRIPTION ATTACHED FOR PONDEROSA MOBILE HOME PARK  
4475 BROADWAY, BOULDER, CO 80304

APPROVED AS TO FORM  
OFFICE OF THE CITY ATTORNEY



Attest:

*Walt Bel*

City Clerk

**CIRCULATOR'S AFFIDAVIT**  
**CIRCULATOR'S AFFIDAVIT**

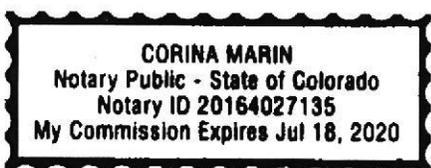
STATE OF COLORADO     )  
  ) ss.  
COUNTY OF BOULDER    )

CRYSTAL LAUNDER  
being first duly sworn, upon oath deposes and says that she/he was the circulator of the above and foregoing petition and that the signatures on said petition are the signatures of the persons whose names they purport to be.

*[Handwritten Signature]*  
Circulator

Subscribed and sworn to before me this 15 day of February, A.D. 2019.

Witness my hand and official seal. My commission expires: July 18, 2020.



*[Handwritten Signature]*  
Notary Public

**CIRCULATOR'S AFFIDAVIT**

STATE OF COLORADO     )  
  ) ss.  
COUNTY OF BOULDER    )

being first duly sworn, upon oath deposes and says that she/he was the circulator of the above and foregoing petition and that the signatures on said petition are the signatures of the persons whose names they purport to be.

\_\_\_\_\_  
Circulator

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, A.D. 20\_\_\_\_\_.

Witness my hand and official seal. My commission expires: \_\_\_\_\_.

## LEGAL DESCRIPTION

(PER TITLE COMMITMENT)

PARCEL I:

A TRACT OF LAND IN SECTION 13, TOWNSHIP 1 NORTH, RANGE 71 WEST OF THE 6TH P.M., DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID SECTION 13; THENCE SOUTH ALONG THE EAST LINE OF SAID SECTION 13, 1002 FEET; THENCE SOUTH 89°54'50" WEST (SURVEYED: NORTH 89°58'34" WEST), 210.5 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 89°54'50" WEST (SURVEYED: NORTH 89°58'34" WEST), 612.5 FEET, MORE OR LESS, TO THE SOUTHWEST CORNER OF TRACT OF LAND DESCRIBED IN BOOK 1046 AT PAGE 18 OF THE RECORDS IN THE OFFICE OF THE BOULDER COUNTY CLERK AND RECORDER; THENCE NORTH 0°04' WEST 591.6 FEET, MORE OR LESS, ALONG THE WEST LINE OF TRACTS DESCRIBED IN BOOK 1046 AT PAGE 18 AND BOOK 1155 AT PAGE 566 TO THE NORTHWEST CORNER OF THE TRACT IN BOOK 1155 AT PAGE 566; THENCE SOUTH 59°44' EAST TO A POINT IMMEDIATELY NORTH OF THE POINT OF BEGINNING; THENCE SOUTH TO THE POINT OF BEGINNING, EXCEPT THAT PORTION CONVEYED TO THE CITY OF BOULDER, RECORDED JANUARY 9, 1996 AT RECEPTION NO. 1575389 AND EXCEPT ANY PORTION THEREOF LYING WITHIN THAT TRACT OF LAND DESCRIBED IN DEED RECORDED MAY 17, 1949 IN BOOK 843 AT PAGE 222, COUNTY OF BOULDER, STATE OF COLORADO.

PARCEL III:

A TRACT OF LAND IN THE NORTHEAST 1/4 OF SECTION 13, TOWNSHIP 1 NORTH, RANGE 71 WEST OF THE 6TH P.M., DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF THE TRACT OF LAND DESCRIBED IN BOOK 1046 AT PAGE 18 OF THE BOULDER COUNTY, COLORADO, RECORDS; THENCE N0°04'W A DISTANCE OF 60 FEET; THENCE SOUTHEASTERLY AND PARALLEL WITH THE NORTHERLY LINES OF THE TRACTS OF LAND DESCRIBED IN BOOK 1043 AT PAGE 18 AND BOOK 1037 AT PAGE 533 TO THE WEST LINE OF COLORADO ROAD NO. 7; THENCE SOUTHERLY ALONG THE WEST LINE OF SAID COLORADO ROAD A DISTANCE OF 60 FEET MORE OF LESS TO THE NORTHEAST CORNER OF THE TRACT OF LAND DESCRIBED IN BOOK 1037 AND PAGE 533 OF THE BOULDER COUNTY, COLORADO, RECORDS; THENCE NORTHWESTERLY ALONG THE NORTHERLY LINES OF THE TRACTS OF LAND DESCRIBED IN BOOK 1037 AT PAGE 533 AND BOOK 1046 AT PAGE 18 OF THE BOULDER COUNTY, COLORADO RECORDS, TO THE POINT OF BEGINNING.  
COUNTY OF BOULDER. STATE OF COLORADO.

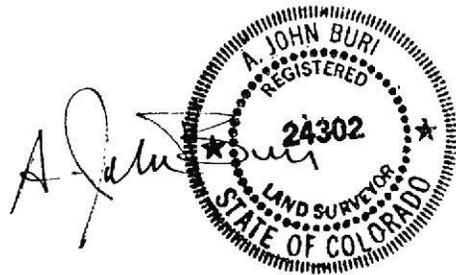
LEGAL DESCRIPTION (PREPARED BY SURVEYOR PER CLIENT REQUEST, TOTAL PARCEL)

A TRACT OF LAND LOCATED IN THE NORTHEAST 1/4 OF SECTION 13, TOWNSHIP 1 NORTH, RANGE 71 WEST OF THE 6TH P.M., COUNTY OF BOULDER, STATE OF COLORADO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID SECTION 13, WHENCE THE EAST LINE OF SAID NE 1/4 OF SECTION 13 BEARS S00°04'00"E, SAID LINE FORMING THE BASIS OF BEARINGS FOR THIS DESCRIPTION; THENCE ALONG SAID EAST LINE S00°04'00"E, 872.00 FEET; THENCE N90°00'00"W 40.00 FEET TO THE WESTERLY RIGHT OF WAY OF N. BROADWAY (COLORADO STATE HIGHWAY 7) AND THE TRUE POINT OF BEGINNING;

THENCE N59°56'23"W, 197.13 FEET; THENCE S00°04'00"E, 202.29 FEET; THENCE N89°58'34"W 350.65 FEET TO THE NORTHERLY RIGHT OF WAY OF 10TH ST. PER RECEPTION NO. 01575389 RECORDED 1/9/96; THENCE ALONG SAID NORTHERLY RIGHT OF WAY THE FOLLOWING THREE COURSES; 1) NORTHWESTERLY ALONG THE ARC OF A CURVE CONCAVE SOUTHWESTERLY HAVING A CENTRAL ANGLE OF 39°36'39" A RADIUS OF 98.00 FEET (CORD BEARS N70°10'17"W, 66.41') AN ARC DISTANCE OF 67.75 FEET; 2) THENCE N89°58'34"W, 34.68 FEET; 3) THENCE S87°28'48"W, 164.87 FEET TO THE EASTERLY LINE OF 1000 ROSEWOOD SUBDIVISION; THENCE ALONG SAID EASTERLY LINE N00°04'00"W, 538.59 FEET; THENCE CONTINUING N00°04'00"W, 60.00 FEET; THENCE S60°43'52"E, 186.98 FEET; THENCE S59°56'23"E, 716.83 FEET TO SAID WESTERLY RIGHT OF WAY OF N. BROADWAY; THENCE ALONG SAID WESTERLY RIGHT OF WAY S00°04'00"E, 60.00 FEET TO THE TRUE POINT OF BEGINNING.

SAID PARCEL OF LAND CONTAINS 6.298 ACRES.



A. JOHN BURI P.L.S. #24302  
FOR AND ON BEHALF OF  
SCOTT, COX & ASSOCIATES, INC.  
1530 55TH STREET  
BOULDER, COLORADO 80303  
303.444.3051  
02/04/19  
PROJECT NO. 17298D

**MEMORANDUM OF UNDERSTANDING  
IN LIEU OF ANNEXATION FOR  
PONDEROSA MOBILE HOME PARK AT 4475 BROADWAY**

TO: Jane S. Brautigam, City Manager

FROM: Chris Meschuk, Asst. City Manager/Interim Director of Planning  
Mary Ann Weideman, Deputy City Manager/Interim Director of Public Works  
Kurt Firnhaber, Director of Housing and Human Services

SUBJECT: Annexation Conditions for Ponderosa Mobile Home Park  
(4475 Broadway) (#LUR2019-00016)

DATE: \_\_\_\_\_, 2019

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The City of Boulder (the “Owner”) owns the property located at 4475 Broadway, commonly referred to as Ponderosa Mobile Home Park, more particularly described in **Exhibit A** (“Property”).

The City has initiated the process of annexing the Property to the City of Boulder. The City proposes a Boulder Valley Comprehensive Plan land use designation change from Manufactured Housing to Medium Density Residential. The City anticipates an initial zoning consistent therewith of Residential - Medium 2 (RM-2).

The City is interested in ensuring that certain terms and conditions of annexation be met by the Owner of the Property to protect the public health, safety, and welfare and prevent the placement of an unreasonable burden on the physical, social, economic, or environmental resources of the City.

The City Attorney’s Office has recommended that the annexation approval of the Property be documented administratively in the form of a Memorandum of Understanding (“MOU”) from the Department of Planning and approved by the City Manager to ensure that the development of the Property proceeds under the approved annexation conditions set forth in this MOU (“Annexation Conditions”).

Since the City is both the applicant and owner as well as the regulatory authority (the “City”), in order to effectuate the intent and orders of the City Council, approval of this MOU shall make this a directive of the City Manager.

This MOU is intended to ensure that the Property remains in compliance with the conditions contained in the Annexation Conditions and that rights of way and easements will be retained for public benefit. Further, the Annexation Conditions shall run with the land and apply to the Owner and its successors and assigns.

After annexation of the Property into the City, this MOU will be recorded with the Boulder County Clerk and Recorder to put potential future purchasers of the Property on notice of obligations set forth in the Annexation Conditions that will run with the Property.

COVENANTS

1. Requirements Prior to First Reading. Prior to the first reading of the annexation ordinance before City Council, the Owner shall pay the following:

Plant Investment Fees (PIF's):

Stormwater	\$2.29/square foot of impervious area
	Existing Impervious Area: 96,128 square feet
	<u>\$220,133.12</u>

**Total Due Prior to First Reading      \$220,133.12**

2. Water and Wastewater Private System Replacement Requirements. Within two years of the effective date of the annexation ordinance, the Owner shall reconstruct the water distribution and wastewater collection systems on the Property, including upgrading or replacing individual service lines to existing structures to meet current city standards. Upon initial acceptance, as defined in the City of Boulder Design and Construction Standards, of the distribution and collection system the City will assume maintenance for these mains and the Owner will remain responsible for maintenance of the service lines.
  
3. Existing Wells. The City agrees that it will not prohibit the Owner from using existing wells for irrigation purposes, even if served by the City water utility. Under no circumstances may existing wells be used for domestic water purposes. No person shall make any cross connections to the City's municipal water supply system from any well on the Property.
  
4. Subdivision. Prior to a building permit application for new dwelling units on the Property and before a sale of the Property to a new owner, the Owner shall submit a Land Use Review application for a Preliminary Plat and a Technical Document Review application for a Final Plat, subject to review and approval of the City Manager, and execute a subdivision agreement meeting the requirements of Chapter 9-12, "Subdivision," B.R.C. 1981, which provide for the following unless the City Manager approves a generally equivalent method of accommodating the following City utility and service needs. The Owner and City agree that areas of these following dedications may be used by the City for the purposes of each dedication requirement prior to the approval of the Final Plat:
  - a. Dedication of the following easements and rights-of-way to the City, the form and final location of which shall be subject to the approval of the City Manager:
    - i. A flood control easement generally along the north property line to allow for the future flood mitigation and channel construction (City's Fourmile Canyon Creek Mitigation Plan).
    - ii. Right-of-way on the north side of Cherry Avenue to accommodate an eight-foot wide tree planting area and a five-foot wide detached sidewalk. The right-of-way dedication shall extend one foot beyond the edge of the detached sidewalk. Structures existing within the area of this right-of-way dedication shall be removed within one year following the effective date of the annexation ordinance.

- iii. 10.5-foot wide portion of right-of-way along Broadway to accommodate the City of Boulder Broadway Reconstruction Project.
  - iv. A public access easement to accommodate pedestrian access from the Cherry Avenue /10th Street intersection to the east property line. The width and limits of the easement shall include the sidewalk on the north side of Cherry Avenue and the six-foot wide sidewalk between Cherry Avenue and the east property line.
- b. Creation of a lot or outlot for the eastern arm of the Property that contains the existing retail sales use. This new lot or outlot will be owned and retained by the City for municipal utility, municipal services, and other city purposes, including, but not limited to the Broadway Reconstruction Project, Four Mile Creek multi-use path, and future flood mitigation projects for Four Mile Creek.
5. Development. The Owner has filed a site review application under LUR2019-00015 (“Site Review”).
- a. Internal Streets. For purposes of development of the Property pursuant to the Site Review, the streets proposed to be internal to the development shall be private streets subject to public access easements. The internal streets are Rosewood Lane, 10<sup>th</sup> Avenue, Cherry Avenue and Ponderosa Avenue (collectively hereafter referred to as “Internal Streets” and individually as “Internal Street”). The Owner shall be responsible for the construction of the Internal Streets. The Internal Streets shall be constructed with a flexible composite pavement section with an asphalt section no less than five-inch thick. The Internal Streets shall be maintained by the Owner until the City has issued certificates of occupancy to each new dwelling unit to be constructed on each side of an Internal Street pursuant to the Site Review. Before the maintenance responsibility of an Internal Street is transferred to the City, the Owner shall improve the Internal Street with a two-inch mill and overlay. The area of an Internal Street to be maintained after such transfer of responsibility to the City shall be limited to the asphalt pavement and any traffic calming measures within the asphalt pavement area, but shall not include the concrete cross-pan, sidewalks, and curb and gutter. The City shall maintain such asphalt pavement to a standard similar to its maintenance of similar public streets. The City Manager may agree for the City to accept maintenance of the Internal Streets at an earlier time or to an equivalent construction and maintenance arrangement.
  - b. Traffic Calming Measures. At the time of construction of the Internal Streets, the Owner shall install traffic calming measures in the Internal Streets that lower vehicle speeds on these streets. These traffic calming measures shall be engineering treatments designed by a Traffic Engineer registered as a professional engineer in the State of Colorado. The design and installation of the traffic calming measures shall be subject to review and approval by the City Manager. The Owner shall maintain all traffic calming measures except those located within the asphalt pavement area of an Internal Street that is being maintained by the City’s Public Works Department.
6. Public Street Design. All public improvements shall be designed consistent with the City’s Design and Construction Standards. Retaining walls shall not be used in the design of the public

improvements in the public right-of-way. The public improvements for the widening of Cherry Avenue and for the new Cherry Avenue /10<sup>th</sup> Street intersection shall include a two-inch mill and overlay. The Owner shall be responsible for the construction of all public improvements associated with the Site Review.

7. Development Timing. To further the intent of Resolution 1217 and minimize displacement of existing residents of the Property, the approval authority under Section 9-2-14, "Site Review," B.R.C. 1981, as may be amended from time to time, may modify or waive the requirements of Subsection 9-2-12(a), "Three Year Rule," B.R.C. 1981, until such time that all mobile homes have been removed from the Property.
8. Historic Drainage. The Owner agrees to convey drainage from the Property in an historic manner that does not materially and adversely affect abutting properties.
9. Ditch Company Approval. If the Property is abutting or crossed by an existing irrigation ditch or lateral, the Owner agrees not to relocate, modify, or alter the ditch or lateral until and unless written approval is received from the appropriate ditch company.
10. Existing Nonstandard Buildings and/or Nonconforming Uses. Upon annexation the mobile home park use shall be considered a legal nonconforming use. Mobile homes will be allowed to continue on the Property but shall not be expanded or replaced with another mobile home. No new mobile homes shall be placed on the Property. The existing retail sales use ("carniceria") on the eastern arm of the Property shall be considered a legal nonconforming use. Changes to the retail use will be considered in conformance with Section 9-10-3, "Changes to Nonstandard Buildings, Structures, and Lots and Nonconforming Uses," B.R.C. 1981. The Owner agrees that any principal uses currently existing on the Property that have not been described in this MOU and that are not in conformity with the provisions of Title 9, "Land Use Code," B.R.C. 1981, shall be discontinued within six months of the effective date of the annexation ordinance.
11. Disconnection of Septic System. The Owner shall abandon any existing septic systems in accordance with Boulder County Health Department and State of Colorado regulations.
12. New Construction. All new construction commenced on the Property after annexation shall comply with all City of Boulder laws, taxes, and fees, except as modified by this MOU.
13. Waiver of Vested Rights. The Owner waives any vested property rights that may have arisen under Boulder County jurisdiction. This MOU shall replace any such rights that may have arisen under Boulder County jurisdiction. The Owner acknowledges that nothing contained herein may be construed as a waiver of the City's police powers or the power to zone and regulate land uses for the benefit of the general public.
14. Dedications. The Owner acknowledges that any dedications and public improvements required herein or as part of the Site Review are rationally related and reasonably proportionate to the impact of the development of the Property as set forth in this MOU.
15. Original Instruments. Prior to the first reading of the annexation ordinance, the Owner shall provide a signed original of this MOU, along with any instruments required in this MOU. The

Owner agrees to hold such documents until after final legislative action on the annexation of this Property has occurred. Final legislative action by the City Council shall constitute acceptance of such documents by the City. In the event that the City does not annex the Property, the City agrees that it will return all such original documents. The Owner agrees that it will not encumber or in any way take any action that compromises the quality of such documents while they are being held by the City.

16. No Encumbrances. The Owner agrees that between the time of signing this MOU and the time when final legislative action on the annexation of this Property has occurred, the Owner shall neither convey ownership nor further encumber the Property, without the express approval from the City. Prior to the recording of this MOU with the Boulder County Clerk and Recorder, Owner agrees not to execute transactional documents encumbering the Property or otherwise affecting title to the Property without first notifying the City and submitting revised title work within five (5) working days of any such transaction.
17. Breach of MOU. In the event that the Owner breaches or fails to perform any required action under or fails to pay any fee specified under this MOU, the Owner acknowledges that the City may take all reasonable actions to cure the breach, including but not limited to, the filing of an action for specific performance of the obligations herein described. In the event the City fails to pay any monies due under this MOU or fails to perform any affirmative obligation hereunder, the Owner agrees that the City may collect the monies due in the manner provided for in Section 2-2-12, B.R.C., 1981, as amended, as if the said monies were due and owing pursuant to a duly adopted ordinance of the City or the City may perform the obligation on behalf of the Owner, and collect its costs in the manner herein provided. The Owner agrees to waive any rights the Owner may have under Section 31-20-105, C.R.S., based on the City's lack of an enabling ordinance authorizing the collection of this specific debt, or acknowledges that the adopting of the annexation ordinance is such enabling ordinance.
18. Failure to Annex. This MOU and any document executed pursuant hereto shall be null and void and of no consequence in the event that the Property is not annexed to the City.
19. Site Review. Initial redevelopment of the Property shall be substantially consistent with all plans prepared by the Site Review applicant on July 29, 2019 and the general intent of the Site Review, as may be amended from time to time.
20. Future Interests. This MOU and the covenants set forth herein shall run with the land and be binding upon the City, the City's successors and assigns and all persons who may hereafter acquire an interest in the Property, or any part thereof. If it shall be determined that this MOU contains an interest in land, that interest shall vest, if at all, within the lives of the undersigned plus 20 years and 364 days.
21. Right to Withdraw. The Owner retains the right to withdraw from this MOU up until the time that final legislative action has been taken on the ordinance that will cause the Property to be annexed into the City. The final legislative action will be the vote of the City Council after the final reading of the annexation ordinance. The Owner's right to withdraw shall terminate upon the City Council's final legislative action approving the annexation. In the event that the City withdraws from this MOU in the manner described above, this MOU shall be null and void and shall have no

effect regarding the City. The City agrees, within 30 days of a request after a withdrawal, to return all previously submitted fees, application, and easement and/or rights of way dedication documents which the City submitted pursuant to this MOU to the City.

22. Affordable Housing. All new dwelling units constructed on the Property shall be deed restricted as permanently affordable units. For any households in residence on the Property on August 1, 2017 (“Existing Households”), the sales price for a new affordable dwelling unit or the rent for such unit shall be set to be affordable to such household based on the household’s income at the time of sale or execution of a lease for the replacement unit. New dwelling units that are not sold or rented to Existing Households shall have either rents set to be affordable to low income households earning between 30 and 60% of the area median income as determined by HUD for the Boulder Primary Metropolitan Statistical Area or similar standards established by the City Manager (“AMI”) or sales prices set to be affordable to moderate and middle income households earning between 60 and 120% of the AMI.
23. Zoning. The Property shall be annexed to the City with a Residential Medium -2 (RM-2) zoning classification, and except as set forth herein, shall be subject to all of the rights and restrictions associated with that zoning.
24. Rental Property Requirements. The rental dwelling unit located above the manager’s office (“Manager’s Unit”) in the existing building on the Property shall be licensed as a rental unit within 30 days of the effective date of the annexation ordinance. For the initial rental license, the Manager’s Unit shall not be required to comply with Chapter 10-2, “Property Maintenance Code,” Appendix C - “Energy Efficiency Requirements,” B.R.C. 1981. Any renewal license for the Manager’s Unit shall be subject to the energy efficiency requirements unless the Owner demonstrates to the City Manager that the Manager’s Unit is to be demolished within a time period that makes such compliance impractical. Any manufactured homes owned by the City of Boulder and subject to a rental agreement shall comply with Chapter 10-3, “Rental Licenses,” B.R.C. 1981, prior to occupancy. Any other units on the Property subject to rental licensing requirements shall be removed from the Property or brought into compliance with Chapter 10-3, “Rental Licenses,” B.R.C. 1981, within three years of the effective date of the annexation ordinance.
25. Property Impacted by Floodplain. The Property is impacted by the 100-year, 500-year, conveyance zone and high hazard zone floodplains of Fourmile Canyon Creek. Any development of the Property must comply with Sections 9-3-2 through 9-3-8 of the Boulder Revised Code, 1981.
26. Blocking and Tie-Down of Mobile Homes. As a modification to Section 10-12-8, “Blocking and Tie-Down Requirements,” B.R.C. 1981, and within eighteen months of the effective date of the annexation ordinance, the Owner shall submit, and obtain City Manager approval of, a plan to secure the mobile homes against high wind forces, generally consistent with the intent of Section 10-12-8, “Blocking and Tie-Down Required,” B.R.C. 1981.

I APPROVE THIS ARRANGEMENT on this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

\_\_\_\_\_  
Jane S. Brautigam, City Manager

ATTEST:

\_\_\_\_\_  
City Clerk

APPROVED AS TO FORM:

\_\_\_\_\_  
City Attorney's Office

\_\_\_\_\_  
Date

EXHIBITS

Exhibit A      Legal Description of Property

## Exhibit A

**LEGAL DESCRIPTION**

(PER TITLE COMMITMENT)

PARCEL I:

A TRACT OF LAND IN SECTION 13, TOWNSHIP 1 NORTH, RANGE 71 WEST OF THE 6TH P.M., DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID SECTION 13; THENCE SOUTH ALONG THE EAST LINE OF SAID SECTION 13, 1002 FEET; THENCE SOUTH 89°54'50" WEST (SURVEYED: NORTH 89°58'34" WEST), 210.5 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 89°54'50" WEST (SURVEYED: NORTH 89°58'34" WEST), 612.5 FEET, MORE OR LESS, TO THE SOUTHWEST CORNER OF TRACT OF LAND DESCRIBED IN BOOK 1046 AT PAGE 18 OF THE RECORDS IN THE OFFICE OF THE BOULDER COUNTY CLERK AND RECORDER; THENCE NORTH 0°04' WEST 591.6 FEET, MORE OR LESS, ALONG THE WEST LINE OF TRACTS DESCRIBED IN BOOK 1046 AT PAGE 18 AND BOOK 1155 AT PAGE 566 TO THE NORTHWEST CORNER OF THE TRACT IN BOOK 1155 AT PAGE 566; THENCE SOUTH 59°44' EAST TO A POINT IMMEDIATELY NORTH OF THE POINT OF BEGINNING; THENCE SOUTH TO THE POINT OF BEGINNING, EXCEPT THAT PORTION CONVEYED TO THE CITY OF BOULDER, RECORDED JANUARY 9, 1996 AT RECEPTION NO. 1575389 AND EXCEPT ANY PORTION THEREOF LYING WITHIN THAT TRACT OF LAND DESCRIBED IN DEED RECORDED MAY 17, 1949 IN BOOK 843 AT PAGE 222, COUNTY OF BOULDER, STATE OF COLORADO.

PARCEL III:

A TRACT OF LAND IN THE NORTHEAST 1/4 OF SECTION 13, TOWNSHIP 1 NORTH, RANGE 71 WEST OF THE 6TH P.M., DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF THE TRACT OF LAND DESCRIBED IN BOOK 1046 AT PAGE 18 OF THE BOULDER COUNTY, COLORADO, RECORDS; THENCE N0°04'W A DISTANCE OF 60 FEET; THENCE SOUTHEASTERLY AND PARALLEL WITH THE NORTHERLY LINES OF THE TRACTS OF LAND DESCRIBED IN BOOK 1043 AT PAGE 18 AND BOOK 1037 AT PAGE 533 TO THE WEST LINE OF COLORADO ROAD NO. 7; THENCE SOUTHERLY ALONG THE WEST LINE OF SAID COLORADO ROAD A DISTANCE OF 60 FEET MORE OR LESS TO THE NORTHEAST CORNER OF THE TRACT OF LAND DESCRIBED IN BOOK 1037 AND PAGE 533 OF THE BOULDER COUNTY, COLORADO, RECORDS; THENCE NORTHWESTERLY ALONG THE NORTHERLY LINES OF THE TRACTS OF LAND DESCRIBED IN BOOK 1037 AT PAGE 533 AND BOOK 1046 AT PAGE 18 OF THE BOULDER COUNTY, COLORADO RECORDS, TO THE POINT OF BEGINNING.  
COUNTY OF BOULDER. STATE OF COLORADO.

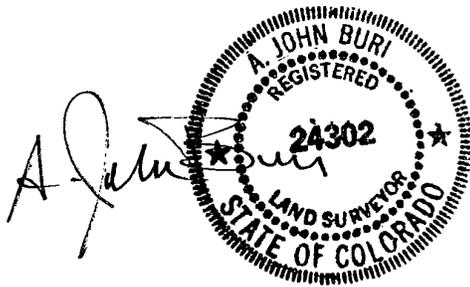
LEGAL DESCRIPTION (PREPARED BY SURVEYOR PER CLIENT REQUEST, TOTAL PARCEL)

A TRACT OF LAND LOCATED IN THE NORTHEAST 1/4 OF SECTION 13, TOWNSHIP 1 NORTH, RANGE 71 WEST OF THE 6TH P.M., COUNTY OF BOULDER, STATE OF COLORADO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID SECTION 13, WHENCE THE EAST LINE OF SAID NE 1/4 OF SECTION 13 BEARS S00°04'00"E, SAID LINE FORMING THE BASIS OF BEARINGS FOR THIS DESCRIPTION; THENCE ALONG SAID EAST LINE S00°04'00"E, 872.00 FEET; THENCE N90°00'00"W 40.00 FEET TO THE WESTERLY RIGHT OF WAY OF N. BROADWAY (COLORADO STATE HIGHWAY 7) AND THE TRUE POINT OF BEGINNING;

THENCE N59°56'23"W, 197.13 FEET; THENCE S00°04'00"E, 202.29 FEET; THENCE N89°58'34"W 350.65 FEET TO THE NORTHERLY RIGHT OF WAY OF 10TH ST. PER RECEPTION NO. 01575389 RECORDED 1/9/96; THENCE ALONG SAID NORTHERLY RIGHT OF WAY THE FOLLOWING THREE COURSES; 1) NORTHWESTERLY ALONG THE ARC OF A CURVE CONCAVE SOUTHWESTERLY HAVING A CENTRAL ANGLE OF 39°36'39" A RADIUS OF 98.00 FEET (CORD BEARS N70°10'17"W, 66.41') AN ARC DISTANCE OF 67.75 FEET; 2) THENCE N89°58'34"W, 34.68 FEET; 3) THENCE S87°28'48"W, 164.87 FEET TO THE EASTERLY LINE OF 1000 ROSEWOOD SUBDIVISION: THENCE ALONG SAID EASTERLY LINE N00°04'00"W, 538.59 FEET; THENCE CONTINUING N00°04'00"W, 60.00 FEET; THENCE S60°43'52"E, 186.98 FEET; THENCE S59°56'23"E, 716.83 FEET TO SAID WESTERLY RIGHT OF WAY OF N. BROADWAY; THENCE ALONG SAID WESTERLY RIGHT OF WAY S00°04'00"E, 60.00 FEET TO THE TRUE POINT OF BEGINNING.

SAID PARCEL OF LAND CONTAINS 6.298 ACRES.



A. JOHN BURI P.L.S. #24302  
FOR AND ON BEHALF OF  
SCOTT, COX & ASSOCIATES, INC.  
1530 55TH STREET  
BOULDER, COLORADO 80303  
303.444.3051  
02/04/19  
PROJECT NO. 17298D

# Ponderosa Community Stabilization



## Annexation, Site Review, and Boulder Valley Comprehensive Plan Land Use Change Request

*Written Statement - Updated July 29, 2019*



**JUNE 22, 2019 NEIGHBORHOOD BLOCK PARTY!  
¡FIESTA DE LA COMUNIDAD, 22 DE JUNIO, 2019!**

Thanks to all of you who have made the 2019 Ponderosa neighborhood block party a success.  
¡Muchas gracias a todos por hacer de la fiesta de la comunidad de Ponderosa del 2019 todo un éxito!



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## Executive Summary

The Ponderosa Mobile Home Park (Ponderosa) is located in North Boulder on approximately 6.29 acres and comprised of 68 mobile homes. The city purchased the Ponderosa property in 2017 and initiated the Ponderosa Community Stabilization program to engage with Ponderosa residents in generating a long-term stabilization program to annex the county enclave in order to improve Ponderosa's infrastructure, provide flood protection, introduce a variety of affordable housing options to the residents, and ensure individual and community needs are met. The proposal includes the phased installation of utility and transportation infrastructure and redevelopment of the property.

The first phase of this project includes the installation of the following improvements:

- 10th and Cherry connections and sidewalks;
- New access point at Cherry and 10th;
- Connection to existing access point at Rosewood Avenue;
- Trees, drives and landscaping for 12 new housing units;
- 12 new energy efficient homes to be constructed on the vacant land located on the western edge of the parcel;
- North-South roadway improvements (paving, walks, curb/gutter/pans) including new water and sewer mains and fire hydrant;
- Temporary paved access along North property line (using approximately existing access road);
- New wastewater and domestic water service including new hookups to existing homes AND existing mobile homes;
- Stormwater detention and water quality for full build out of community;
- Storm sewer connection to city system utilizing existing offsite easement;
- New electric service to new homes (no gas service to new homes);
- Installation of solar on new homes;
- New mailboxes and communication board;
- New fire hydrants, fire access, adequate fire turnaround;
- Small park along creek with wishing well.

The long-term concept (10+ years) includes approximately 73 permanently affordable residential units on fixed foundations. The goal is non-displacement of existing residents and mobile homes would remain in the development for the foreseeable future. The residents' valuable input has carefully guided the design team in creating a long-term phasing approach based on the resident developed values and principles, as well as City annexation goals and objectives.

Combined, these three Land Use Review applications, are built on a long-term planning process involving a robust community engagement program with the Ponderosa residents and the city of Boulder. These applications are focused on the foundational principle of minimal displacement to ensure Ponderosa is appropriately transformed into a stable and resilient community. These applications include:

1. Annexation and initial zoning of Residential Medium 2 (RM-2);
2. Boulder Valley Comprehensive Plan (BVCP) land use designation change to Medium Density Residential;
3. Site Review.

Thank you,



Owner



Planning & Entitlements



Architecture



Engineering



Landscape Architecture



Community Engagement



Cultural Liaison



Construction Management

## Background

### History of Ponderosa Mobile Home Park

The Ponderosa Mobile Home Park began operation sometime in the early 1950s. Some documents list the park opening in 1957. A 1958 aerial photograph shows the park with 16 units. By 1966 the park had expanded to 54 units, and by 1972 expanded to 68 units, which is the size of the park today. The park operated on a well and septic system until the late 1970s, when water supply issues began resulting in the park running out of water, and potential contamination issues arose. In coordination with the County Health Department, the park applied for and received an out-of-city utility permit for City water and sewer service. The City issued the water connection permit in 1980. Based on the as-built drawings, it appears the City water connection was tied into the existing park water line infrastructure. Connection to the City sewer system occurred in 1984, and was also tied into the existing park sewer line infrastructure.

In 1990 the City began studying the park due to life safety concerns the units and the park’s infrastructure condition, and in 1991 and 1992 Thistle Community Housing and the City worked to examine the feasibility of purchasing and operating the park. In 1992 the City, residents, and the property owner began discussing the annexation of the park, upgrades to the utilities, and the sale of the property to the City for the purpose of eventual transfer to the residents as a resident-owned community. In May of 1994 the City formally offered to purchase the park, plus the vacant 2 acre parcel to the west for \$944,000. At the direction of the City Council, City staff proceeded to identify the necessary phased upgrades to the park, including reconstruction of the utilities, paving the streets, and replacing unsafe units by utilizing the vacant 2-acre parcel to resolve spacing issues with existing units. The total cost for infrastructure upgrades was estimated at just over \$1,000,000 in 1996. The City proposed a phased purchase package for the owner to spread the City’s purchase payments over several years, and a loan to transition to a resident-owned community. In April 1996, the owner informed the City that he was not interested in responding to the City’s purchase offer, which the City then formally withdrew.

In 1997, the county rezoned the park to Manufactured Housing Park zoning. In 2000, the City and county changed the land use designation from Medium Density Residential to Manufactured Housing in the Boulder Valley Comprehensive Plan.

In 2000, the owner began the process of exploring annexation again, this time without any City purchase considerations. The City reviewed and provided numerous comments and questions for

additional analysis to the owner. In 2002 the application for annexation was withdrawn. In 2004, the then owner (since 1971) sold the park (without the adjacent vacant 2-acre parcel) to a new partnership. The adjacent parcel was then sold to a separate buyer who then annexed and developed the parcel as the 1000 Rosewood project. In 2010, a group of students from the University of Colorado Boulder's College of Architecture and Planning prepared a survey and report on the neighborhood. Since 2010, the new ownership group performed some upgrades to the park. In early 2013, the owners applied for a pre-application review to upgrade the existing water lines inside the park. Due to the provisions in the out-of-city utility agreement, annexation was necessary before any work could be completed. In September 2013, flooding occurred throughout the city and county, including Fourmile Canyon Creek, causing shallow surface water flooding throughout the park, and causing significant damage to surrounding properties and much of north Boulder.

## 2015 West Fourmile Canyon Creek Annexation & Scenarios Study

Following the September 2013 flood, the need for improvements to ensure residents' welfare became more acute. In 2014, the City was awarded a CDBG Disaster Resiliency Grant to pursue resiliency solutions study for three parcels, including Ponderosa, bordering West Fourmile Canyon Creek (WFCC), which flooded significantly throughout its watershed including in the immediate vicinity of Ponderosa. Within the park, this grant-funded work focused on resident and park owners engagement, followed by development of a cost estimate for infrastructure replacement.

### Shared Goals and Drivers

Included in the study report were 11 goals and drivers informed by Ponderosa residents, the then-owners of the community, City staff and Council, including:

1. Minimize disruption to the owners and residents.
2. Keep the residents of the community together; minimize displacement.
3. Improve community resilience.
4. Improve health and safety.
5. Retain affordability.
6. Create certainty for the future.
7. Achieve annexation goals.
8. Encourage long-term investment in property.
9. Improve utilities stability/reliability/service.
10. Leverage disaster recovery funding.
11. Minimize costs and maximize dollars invested.

### City Purchase

In early 2016, City Council accepted the final WFCC report and requested staff to continue to seek solutions for Ponderosa. Three options (do nothing, redevelop as multifamily apartments, and small homes) were assessed against the Goals and Drivers identified for the community. Based on the results of this analysis, City leaders chose to pursue the "small homes" option focused on:

- City purchase
- Annexation
- Small, energy-efficient homes affordable to existing residents
- Infrastructure upgrades and replacement
- Resident option to own or rent homes

*Written Statement - Site Review, Annexation and Land Use Change Application*

In 2017, the City of Boulder commenced the Ponderosa Community Stabilization Program (“Program”) to:

1. Design and implement a resident engagement process to provide opportunities for resident input, ongoing updates, and more generally promoting the goal of minimizing resident displacement;
2. Design and facilitate a resident-centered resilient community design process that will inform community infrastructure, land tenure models, and home design;
3. Annex the property including, land use and zoning changes.

The Boulder County Collaborative supported use of Community Development Block Grant - Disaster Recovery funds for the purchase of Ponderosa and on August 1, 2017 the City purchased Ponderosa.



## Council Resolution 1217

On October 17, 2017, City Council adopted Resolution 1217 to ensure the long-term sustainability, resilience, and permanent affordability of the Ponderosa Mobile Home Park.

A RESOLUTION FOR THE PURPOSE OF ENSURING THE LONG-TERM SUSTAINABILITY, RESILIENCE AND PERMANENT AFFORDABILITY OF THE PONDEROSA MOBILE HOME PARK.

WHEREAS, Ponderosa Mobile Home Park, established in 1957, has long offered an affordable housing opportunity to residents of Boulder County; and,

WHEREAS, Ponderosa Mobile Home Park, features the original, aging infrastructure requiring replacement to ensure the health and life safety of the residents; and,

WHEREAS, the Boulder Valley Comprehensive Plan asserts long-standing community values including commitment to sustainability, inclusivity, and diversity of housing types and price ranges; and,

WHEREAS, the Boulder Valley Comprehensive Plan has adopted policies to facilitate energy-efficient land use, sustainability, permanently affordable housing, and reduction or elimination of health and safety issues impacting manufactured housing communities; and,

WHEREAS, the City of Boulder has purchased Ponderosa Mobile Home Park for the purposes of annexing the property into the City of Boulder, replace and improve failing infrastructure, and preserve the community as permanently affordable; and,

WHEREAS, most Ponderosa residents have lived in the Boulder area for many years and contribute to its economy; and,

WHEREAS, the City of Boulder is committed to working with the residents to develop and implement a plan for addressing the housing needs of the community that ensures permanent affordability and sustainability with certitude; and,

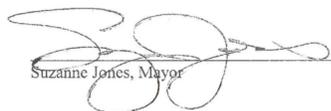
WHEREAS, the City of Boulder intends its ownership of the community to only last through the infrastructure improvements with the future ownership to be determined in partnership with the residents; and

WHEREAS, the City of Boulder is committed to working with the residents of Ponderosa Mobile Home Park to pursue a stabilization program guided by the principles of resident-engagement, sustainability and resiliency, minimal displacement, and long-term affordability.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BOULDER, COLORADO, THAT:

The acquisition, annexation and improvements to the Ponderosa Mobile Home Park, located at 4475 Broadway in Boulder, is consistent with the Boulder Valley Comprehensive Plan. The City Manager is hereby directed to pursue a path forward in coordination with the residents of the Ponderosa Mobile Home Park to protect the health and life safety of the community, enable permanent affordability, promote sustainability and resiliency, and ensure minimal resident displacement.

ADOPTED this 17th day of October 2017.

  
Suzanne Jones, Mayor

ATTEST:

  
Lynnette Beck, City Clerk

## Site Context

### Site Overview/Characteristics

The 6.46-acre property is located in North Boulder, northwest of the intersection of Violet Avenue and Broadway. The property has frontage on and access from both Cherry Avenue and Broadway. The site is located adjacent to Fourmile Canyon Creek. The property is under the jurisdiction of Boulder County and is considered an enclave to the city because the property is surrounded by the Boulder city limits on all sides. There are currently 68 mobile homes on the property.



Figure 1 - Ponderosa Mobile Home Park Context Map

In addition, an approximately 2400 square foot retail building “Carniceria” is located on the northeast portion of the property in the area connecting to Broadway. The building is owned by another property owner, but the building is legally encroaching onto the Ponderosa property and has easements for access, parking, and building. The long term plan for this property is to create an outlot that will remain in city ownership in order to preserve the easements in place and provide for the improvements associated with the Broadway project and future flood mitigation of Four Mile Creek. It is anticipated that the Broadway reconstruction project will close this entrance to Broadway and build a temporary entrance to the community at Cherry and 10th (in the same location as the 4-way intersection is proposed as shown in the Site Review documents).



## Community Characteristics

### Demographics

Ponderosa consists of 68 mobile homes and 187 residents. Key findings from the community profile include:

- Nearly all the units are owner-occupied.
- The vast majority of Ponderosa's residents have lived in Boulder for over 10 years, however, a significant proportion have resided in the park for less than 10 years.
- Most households include one or two residents (54.4%); but, some (22%) have five or six members, including children.
- Ponderosa residents occupy a unique and broad range of professions, including construction worker, hospice worker, landscaper and university administration.

### Community Values and Characteristics

Through numerous community meetings and engagement activities, the community expressed deep appreciation for Ponderosa and what neighborhood characteristics are important. Ponderosa residents describes themselves as self-sufficient, artistic, family-oriented and hardworking. Ponderosa is a quiet place where children can play freely and where residents care for and look out for one another and their families. Ponderosa is a diverse community that is well connected to the rest of Boulder through schools, work, parks, neighbors and businesses. Residents value the opportunities, security and economic viability that low rents provide them. They can provide for their families and are proud to not live in subsidized housing.

The location and organization of Ponderosa provides children with the freedom to run and play within the community, by the creek, or in the nearby Foothills Park; residents value the open spaces to which they have easy access. They are proud of the community garden and memory garden in Ponderosa. They enjoy having their own four walls, which they believe reduces conflict with neighbors. Residents hope they can live in Ponderosa for many years to come.

### Community Concerns and Fears

Throughout the course of conversations and meetings with residents since 2014, several common concerns and fears surfaced. Based on the community's history with government, there are concerns about City intentions and motivations about the purpose of the study and desire to annex. The residents' main concern is losing their homes through the annexation process.

Residents want to protect the investments they have put into their homes. They are concerned that the annexation process will lead to higher housing costs, whether through higher rents, utility costs or improvements that will put the community out of their budget reach. Residents live in fear of an uncertain Ponderosa future and how it might impact their home investments and their ability to remain in Boulder in their affordable homes. Uncertainty and fear is partially being driven by the perception that the City of Boulder wants to remove their mobile home homes and replace them with new developments or apartments.

### Resident Leadership Committee

The Ponderosa Resident Leadership Committee (RLC) is a group of elected community leaders living within the Ponderosa community. Over 65% of their residents participated in voting for the RLC members. Resident leaders shared the ideas, concerns and input of neighbors. The RLC is given up-to-date information on the project and share information with neighbors and returns with

feedback and questions. The RLC is being set up so Ponderosa residents have a strong voice through infrastructure and housing decisions, to work on issues that are important to residents' daily lives, and to help develop a lasting leadership group in the community. The RLC is supported by the City and project team. All meetings and materials are provided in English and Spanish to ensure that all members have clear information. The RLC has a website, the project team communicates through text message, email, website and posted materials.

### **Goals for the RLC**

- Elected by community members to bring residents' voices and values to the project.
- Different types of people who represent the whole community.
- Have accurate and up-to-date project information and useful community resources.
- Help with communication between residents and the City of Boulder.
- Create neighborhood connections that last beyond the duration of the City of Boulder project.

### **RLC Leadership Milestones**

- Members have participated in 23 monthly meetings since August 2017
- Established and approved meeting procedures
- Informed and revised leadership structure
- Maintained RLC notes and sign in sheets
- Provided input and guidance on meeting structure, content and organization
- Attended a Rebuild by Design workshop and several other planning workshops
- Reviewed valuation consultant proposals and provided feedback to the City
- Hosted two neighborhood parties

The range of questions from the RLC is broad and has been growing throughout the course of the project. In response the project team has provided an evolving Resident guide that is updated as additional questions are posed and additional answers are known. Questions cover the process to enable residents to stay on site, how annexation works, zoning clarification, valuation and housing costs, housing design and types, site layout, access points in and out of the site, flooding information and phasing for infrastructure to name a few.

### **Challenges and Lessons Learned**

For many of the members of the RLC this is their first time in an organized leadership group or acting on behalf of their community. The team and residents have worked hard to establish and maintain meeting norms to ensure that members are respected and feel safe through their involvement in the RLC. Residents are engaged in meetings and participation and attendance is strong. All meetings are held in English and Spanish, with materials in both languages. The group has greatly improved with respect to their cultural understanding and English speakers generally respect the lag time for translation so that all members are able to participate.

This project is complex with many moving pieces (e.g., property management, new housing options, establishing values at which the City would purchase each home if homeowners wish to move out or use their home value toward living in a new home, infrastructure replacement, annexation). As additional details of the project are known, the project team must often revisit, reaffirm and/or revise the responses to questions. The team continuously updates the resident guide and responds to questions from residents at meetings.



Figure 2 - Resident Leadership Committee Meeting

## Land Use and Zoning

**Planning Area:** The subject property is located within the Planning Area for the Boulder Valley Comprehensive Plan (BVCP), a jointly adopted plan by the City and County. The property borders the Boulder city limits on all sides (enclave) and is located within Area II of the BVCP. R. Area II refers to land now under county jurisdiction where annexation to the city can be considered consistent with Policies 1.07 Adopting Limits on Physical Expansion, 1.09 Growth Requirements, and 1.16 Annexation. Per Annexation Policy 1.16.b, the city will actively pursue annexation of county enclaves, substantially developed properties along the western boundary below the Blue Line and other substantially developed Area II properties. The property is considered an enclave because the unincorporated area has been “entirely contained” within the boundaries of the city for at least three years (C.R.S. § 31-12-106).

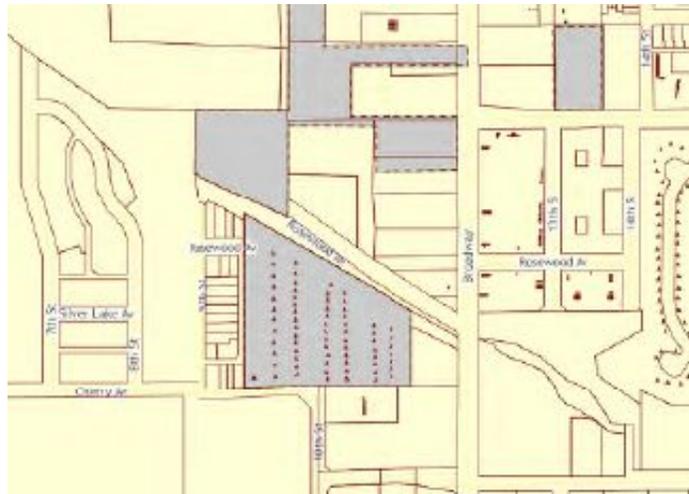


Figure 3 - Planning Area

**Land Use Designation:** The majority of the site is designated as Manufactured Housing (MH) on the land use map of the Boulder Valley Comprehensive Plan (BVCP), which applies to existing manufactured housing parks. The MH designation is intended to preserve the affordable housing provided by the existing manufactured housing parks and allow for future affordable housing.

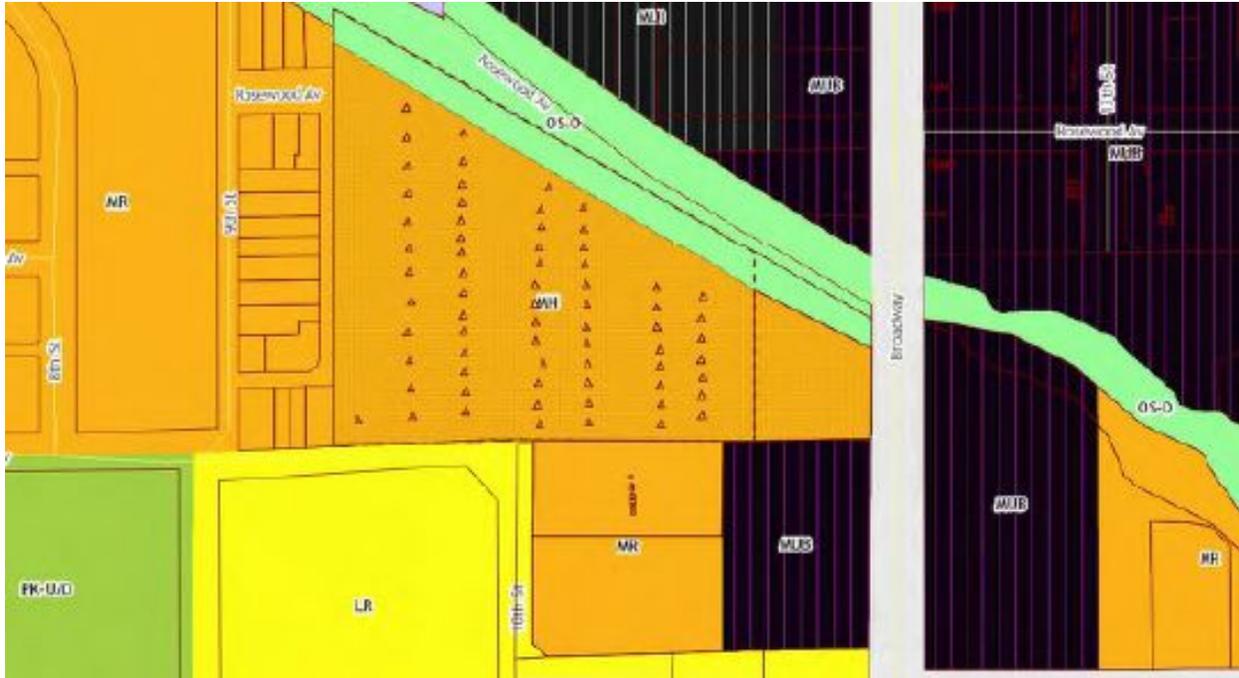


Figure 4 - BVCP Land Use Designation

**Zoning:** The property is located in unincorporated Boulder County with a county zoning of MH – Manufactured Home Park. The purpose of the zoning, as defined by the Boulder County Land Use Code is to “provide for manufactured home parks in appropriate locations, consistent with comprehensive planning policies to encourage and provide for affordable housing including the preservation of existing housing stocks”.



Figure 5 - Boulder County Zoning

### Existing Homes and Property Management

Currently there are 68 mobile homes in Ponderosa and 1 fixed foundation structure that includes a manager’s office on the first floor and second-story apartment. The majority of the homes have been significantly altered and include many additions, outbuildings and accessory structures. Home owners have performed much of this work over time and much of it is unpermitted.

Since October 2013, Ponderosa has been managed by Greg Gustin with G4 Consulting. There is an onsite manager’s office, which has provided a home base for many resident engagement meetings (formal and informal). In addition, the manager’s office has provided space for outdoor bulletin boards, brochure kiosks, and an onsite library for all the documents related to the annexation, RLC, and other important information for the community.

### Floodplain

The Fourmile Creek 100-year floodplain overlays the majority of the existing site, with a west-central portion of the site out of the 100-year floodplain and in the 500-year floodplain. 100-year base flood water surface elevations have been interpolated and analyzed to determine which modular homes have a finish floor elevation (FFE) below the base flood elevation (BFE), between the BFE and the flood protection elevation (FPE), and above the FPE. All the finished floors of all the units are located above the flood elevation. Therefore, no improvements are required per FEMA and City of Boulder flood protection recommendations.



Figure 6 - Floodplain Map



Figure 7 - Floodplain Analysis Figure

## Community Outreach

Extensive [community outreach](https://ponderosaboulder.weebly.com) has been a major component of the Ponderosa Community Stabilization program. Since Summer of 2017, community outreach and engagement has included the following. Summaries of all of the community outreach activities, workshops, resident guides and other videos are located on the Ponderosa community website at <https://ponderosaboulder.weebly.com>.

Community Meeting	August 26, 2017	Initial community meeting for this phase of work to introduce RLC concept, and vote for RLC members. Each candidate presented a speech to the community.
RLC Meetings	Monthly since August 2017	17 meetings with strong participation and high attendance
Community Workshop #1 - Context, overview	October 14, 2017	Project overview and community input on priorities, annexation process, resilience values, budget, etc. gathered via small groups, dot voting and keypad polling
Community Workshop #2 - Housing typologies	November 4, 2017	Housing discussion, breakout sessions, housing typologies, costs, and responses to initial project questions.

Newsletters	Monthly to bimonthly since November 2017	Mailed newsletters in Spanish and English to all residents with updates from City, Trestle, Habitat, Property Manager, etc
Resilience Workshop (Rebuild by Design)	December 4, 2017	Resident led community tour to area experts and expert discussion on mechanisms for resilience in Ponderosa
Community Workshop #3 - Site Design	January 27, 2018	Focus housing types, values, visions, priorities and housing cost for current monthly expenditures. Included a site tour of Wild Sage housing units.
Community Workshop #4 - Concept Review	March 3, 2018	Appraisal process, land ownership models, community resources, site survey and community survey information and also explanation of Concept Review
Good Neighbor Meeting	May 31, 2018	Invited neighbors from 1000 Rosewood and Ponderosa residents to meeting
Ponderosa Website	2018	Created <a href="https://ponderosaboulder.weebly.com">website</a> for Ponderosa residents to share all past and present materials related to this project in both Spanish and English <a href="https://ponderosaboulder.weebly.com">https://ponderosaboulder.weebly.com</a>
Text Alerts	15 community alerts	Messages to all available resident phone numbers, in English and Spanish, to update on meetings, council meetings and community updates.
City Planning Board (Concept Plan)	June 7, 2018	Public Hearing including public comment from both Ponderosa and non-Ponderosa residents.
Neighborhood Block Party	June 23, 2018	Residents worked with project team to plan and organize a community celebration using a neighborhood block grant from the city of Boulder.
City Council (Concept Plan)	August 23, 2018	Public Hearing including public comment from both Ponderosa and non-Ponderosa residents.
Residents' Guide	March 2019	A new residents' guide was distributed to Ponderosa residents on Friday, March 29. It is a compilation of all questions received between the fall 2017 and March 2019, and answers from different project partners. It is also available for download at <a href="http://bit.ly/ResidentsGuide">http://bit.ly/ResidentsGuide</a> .
Neighborhood Block Party	June 22, 2019	The Ponderosa community is planning another block party, with the help of a neighborhood block grant from the city of Boulder.
Housing Workshop #5	June 29, 2019	Habitat for Humanity housing options were presented to residents.



UPDATES - ACTUALIZACIONES

NEWSLETTER - BOLETÍN

COMMUNITY - COMUNIDAD

DOCUMENTS

PHOTOS & VIDEOS

RESOURCES - RECURSOS

MORE...

## Annexation Goals

Since the City began examining annexation of the property in 1990, several key issues and challenges remain unresolved. Many of these issues are common for mobile home parks of this vintage and would require significant investment. Improvements that were identified in previous reports and studies include:

- Water and Sewer utility replacement and redesign to City standards, including adequate fire protection: The current private utility lines do not meet the City standard sizing, layout and looped system requirements; additional fire hydrants would be required.
- Floodplain mitigation for the mobile homes in the 100-year floodplain: The majority of the park is in the 100-year floodplain, and mobile homes must be properly elevated and secured to prevent movement or collapse in a flood.
- Upgrades to other utilities (electric, cable, etc.). Power lines are located near the roofs of some homes and some gas connections do not meet current safety standards.
- Access, street paving, parking, and stormwater management: The current streets are unpaved, and access is not clearly defined. In order to meet City standards and fire/police/EMS access standards, paving of the streets, pedestrian and multi modal circulation, speed calming, designated parking and adequate turning radius for fire trucks is necessary, as well as stormwater detention and water quality facilities to treat runoff.
- Unit spacing and building code compliance: Many of the units have had non-permitted additions or construction work that do not meet building codes or safety standards. In addition, many units are spaced too close together to meet fire protection or setback standards.

## Community Stabilization - Long Term

Identified long-term stabilization solutions to replace the infrastructure, maintain affordability, foster resilience, respect the values of the community, and minimize impacts to residents during construction include:

- City Council, Resolution 1217, October 2017
- Infrastructure replacement - roads, sewer, water, utilities
- Flood protection
- Stormwater management and water quality
- Pedestrian and automobile connections
- Energy efficiency
- Permanent affordability
- Non displacement of existing residents
- Housing replacement options with Habitat for Humanity

- Home ownership opportunities
- Opportunities to stay in existing mobile home
- Community amenities
- Access to nature and creek
- Increased site safety and road safety
- Preserve eclectic nature of community, integrate art and allow for individualism
- Tree canopy
- Minimize disruptions and uncertainty through construction process

## Community Stabilization - Short Term

Identified short-term stabilization solutions to maintain the infrastructure, increase quality of life and safety, and build capacity and support residents through future transitions include:

- City Council Resolution 1217, October 2017
- Life safety upgrades, including electrical replacement and smoke detectors
- Strategies to reduce vehicle speeds
- Move towards zero waste through recycling, compost, trash
- Low cost/free internet
- Resident leadership and training, workshops, website, and newsletters
- Floodplain education
- Resident survey with BAHRI
- Homeowner education with Habitat for Humanity
- Title clean up with pro bono CU law clinic
- Collaboration with Growing Up Boulder and other CU programs
- Community clean-up day
- Community celebration and potlucks
- Improve community communication channels and mechanisms
- Provide language support services to bridge divides between community sectors
- Resident Leadership monthly meetings

## Project Description

### Concept Plan

In 2018, the City of Boulder and a project team led by Trestle Strategy Group submitted a [Concept Plan](#) for Ponderosa. The Concept demonstrated a phased approach to infrastructure replacement and home construction.



Figure 8 - Concept Plan from April 2018

### Site Design/Site Review/Annexation

In response to comments received from staff, Planning Board, City Council and the residents, the site plan was refined as shown in the attached application. The long-term concept (10+ years) includes approximately 73 permanently affordable residential units on fixed foundations. The development will include common amenities like a community center, community gardens, and pocket parks. The proposed zoning is RM-2, which is a medium density residential areas primarily used for small-lot residential development, including without limitation, duplexes, triplexes, or townhouses, where each unit generally has direct access at ground level." Mobile homes are an allowed use in RM-2 with an approved use review. Mobile homes will be allowed to remain once fixed foundation homes are constructed and the property no longer meets the definition of "mobile home park" in the land use code, so a variance to allow EXISTING mobile homes through the annexation agreement will be required. No new mobile homes will be allowed. The existing 2,400 square foot retail sales building ("Carniceria") located on the northeast corner of the property adjacent to Broadway is a nonstandard/nonconforming use. That use will be allowed to continue and changed in conformance with Chapter 9-10, "Nonconformance Standards," B.R.C. 1981.

The proposed land use is Medium Density Residential. Modifications to the land use code are being requested as part of this application as listed in the Code Modification attachment and are required in order to allow for unit replacement to occur in the general location of the existing homes. On balance, the proposed development will meet the density, use, bulk, landscape, and open space requirements of the RM-2 zone district.

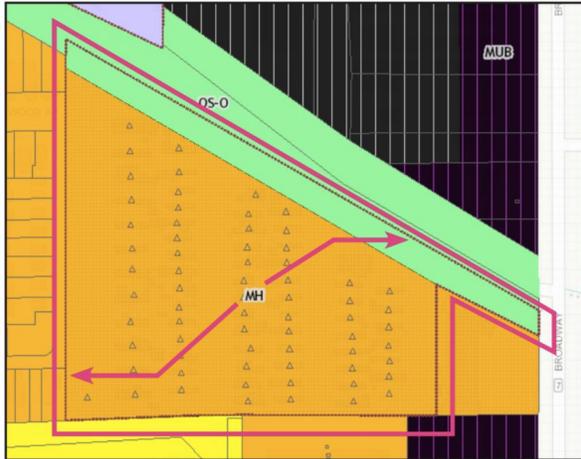


Figure 9 - Current Land Use



Figure 10 - County Enclave, Seeking RM-2 City Zoning

Modifications requested include:

- Side and rear setback for new homes on Cherry and Rosewood
- Landscape quantities
- Accessory structure allowance for new community building
- Streetscape modifications for private streets
- Landscape walk modifications
- In general, the project will allow for the existing homes to remain in Ponderosa and new homes will need to meet all applicable building and energy codes.
- Existing retail use to be allowed

New access connections	New access will be provided via a 4-way intersection with stop signs at Cherry/10th and a connection to the existing road in 1000 Rosewood, increasing neighborhood permeability, safety, and connectivity.
Access to nature	Ultimately, the northern road will be removed from along the creek in order to reduce vehicle traffic separating the residents and the creek and to reduce impervious area within the wetland buffers. New parks will be located along this edge to create shared greenspaces and greater access to nature.
Safe streets	The streets are designed to separate vehicular and pedestrian circulation, reduce speeding and provide better line of site for families and seniors.
Maintain parking	Parking will be maintained at approximately 2 spaces per unit
Community spaces	A new community building is proposed for Ponderosa which will include shared spaces for the residents. In addition to the community building, new gardens, relocated wishing well and other community spaces will be incorporated into Ponderosa.

<p>Improved circulation and mobility options</p>	<p>Circulation will be greatly improved through the elimination of some roads which will reduce speeding, cut through traffic and access options. In addition, new pedestrian paths and connections to the multi-use path system will be installed. Housing and Human Services will work with the RLC and residents to create an ecopass program for the community.</p>
<p>Low impact phasing</p>	<p>The first phase of this project will include the installation of new water and sewer infrastructure including hook ups to existing trailers as well as new homes, the construction of new roads, and stormwater detention and water quality for the full build out. 12 new homes will be constructed along the western edge on currently vacant property to allow options for existing residents to move into, freeing up space for new replacement homes. Construction will be phased and coordinated with residents to minimize disruptions and maintain access to existing homes.</p>
<p>Better fire access</p>	<p>This proposal will significantly improve fire access through the creation of two new access points and the pavement of roads. New fire hydrants and water lines will be installed. With the annexation, Ponderosa will receive services from the City of Boulder Fire department. All new homes will receive fire sprinklers.</p>
<p>Community gardens</p>	<p>New community gardens will be incorporated into the new parks and include features and amenities that are desired by the residents.</p>
<p>Better tree canopy</p>	<p>Through the years, most of the trees have been removed from Ponderosa. New street trees and trees in the open spaces will be planted to provide a better tree canopy and reduce the heat island effect. The limiting factor in tree quantity is required utility clearances.</p>
<p>Solar orientation and integration</p>	<p>Homes and trees will be sited to maximize solar exposure for rooftops. New homes will be wired for solar installation and a community solar approach is being used to distribute and share energy savings amongst all residents.</p>
<p>Maintain views</p>	<p>Homes along the western edge vary in height in order to provide views to the west and varied architectural rhythm. New homes will be the same or lower in height as the neighboring homes to the west.</p>
<p>Stormwater detention and water quality</p>	<p>Currently there is not any stormwater or detention in Ponderosa. With the first phase, water quality will be incorporated to treat runoff, and stormwater detention will be</p>

	installed to accommodate all future development.
Underground electric utilities	New electric utilities will be undergrounded in order to reduce overhead lines and utilities. Where possible, existing electrical service will be undergrounded as well.
Allow for permanent and affordable housing replacement	A primary goal of this project is to preserve existing affordable housing and allow for the construction of new fixed foundation, affordable homes for current and future residents of Ponderosa.
Highlight the stream as a community asset and improve access to stream	The long-term strategy for Ponderosa is to remove the road along the stream corridor and to provide new park and open spaces in order to maximize the community's access to the stream and the open space corridor.
Safe children play areas	The green spaces between the homes and new community parks will create safe spaces for children to play. The houses will face the community greens in order to allow for line of sight and car free play zones. New parks will also incorporate features for children including a range of play areas.

### Housing Program



Figure 11 - Housing Rendering Proposal

The proposal includes a mix of residential unit types to reflect the diversity of households currently living at Ponderosa as well as to provide flexibility in the site plan. In order to minimize the displacement of existing residents, the project's phasing provides the option for residents to continue ownership and occupancy of their mobile home. Residents will be able to move directly from their current mobile home and into a new home, without ever leaving the neighborhood.

New homes are proposed as primarily single-family and duplex homes, with some carriage houses, triplexes, fourplexes and townhomes. Mobile homes would remain in the development and would gradually and voluntarily be replaced by new, similar-sized fixed foundation homes. A long-term land lease would allow residents to own their homes. All new replacement homes will be size limited and deed restricted. The proposal includes a mix of housing that can accommodate a variety of household configurations. New homes will contain 1-, 2-, and 3-bedroom units. Homes will be designed to accommodate extended families. The proposal includes one-story homes that would be conducive to populations with special needs, including the opportunity to age in place.

As shown in the exhibit, there are several vacant units and pad sites within the community due to natural attrition and people moving out of the community. However, new housing will be phased and built once adequate space is available within the community to build the units and associated improvements while meeting fire separation.

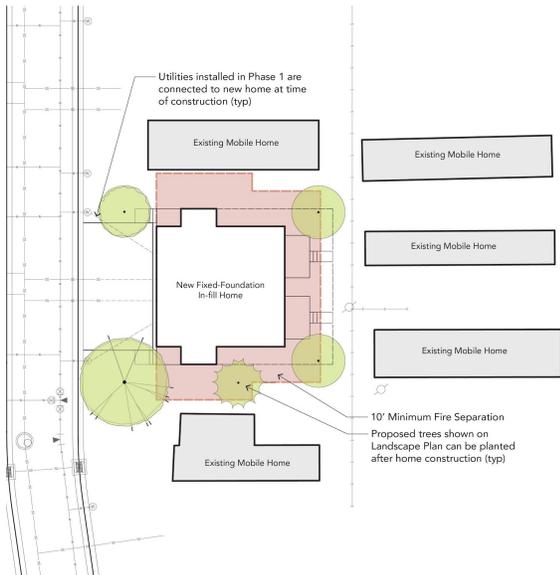
The first phase proposes 12 new units along the vacant western property boundary. The units will be a mix of detached one story ground floor units, carriage homes, and attached townhouses. Long-term concept (10+ years) includes approximately 73 permanently affordable residential units on fixed foundations.

Homes in Ponderosa are very close to one another, and new homes will be required to follow current building codes. While the goal is for every mobile home in the community to eventually be replaced, units will also need to be fire-sprinkled, elevated above the floodplain, designed to meet accessibility codes, maintain safe clearance between the units, and to meet the actual needs of senior residents, families, and multiple generational families. The project will require land use and building code flexibility and innovation throughout the Annexation, Land Use Change, and Site Review approval process.

New homes will be built in the general vicinity where existing homes are located only after there is a vacancy that creates opportunity to build new homes that meet the fire separation requirements. The new homes will be located so as to provide yards, patios, landscaping and other associated improvements (foundation, carport, fencing, etc). that accompany the house installation.

Components of the affordable housing program include:

- Goal of minimal displacement of current residents and creation of additional housing units while maintaining the existing site configuration.
- Mix of housing types to accommodate range of residents: aging in place, accessibility, larger families, singles, and couples .
  - Carriage House unit - one or two bedroom flats above two car garages
  - Cottage units - Attached or detached townhouses. Multiple plan options to suit: one or two stories, and one, two, or three bedroom plans.
  - Accessible cottage unit - on grade fully accessible or adaptable for aging in place.
- Off-site prefabricated construction is anticipated and will minimize construction impact to existing residents and will facilitate a phased approach to housing and replacement.
- New and replacement units will be raised above FPE. All units will include a porch elevated 18-24” above the existing grade.
- All units will be deed restricted. The City and Habitat for Humanity will work with residents to identify the best housing solution for each household’s needs.



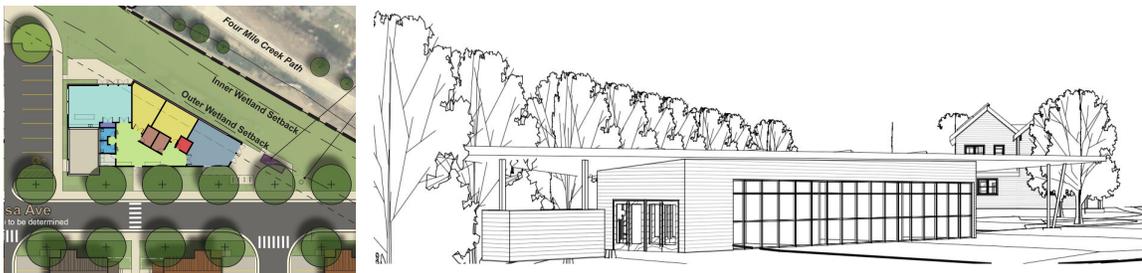
Figures 12 to 14 - Housing Replacement Strategy

West End New Home Construction



Figure 15 - West End Homes to be built in Phase 1 as per Concept Plan Submittal (August 2018)

## Community Building



Figures 16 & 17 - Community Building

The community building is designed to provide many of the functions discussed with residents during community outreach, as well as support the programming efforts of future partner organizations like the I Have a Dream Foundation (IHAD) of Boulder County. The design of the community building is, and will continue to be, informed by resident input and tools like the visual preference surveys. It's located to take advantage of Four Mile Creek, pedestrian/vehicular circulation and open space/parks within the community. The onsite community building will complement other site amenities like raised community garden beds, and better trash and recycling facilities.



Figure 18 - Community Building Rendering Proposal

The program for the community building includes:

- **WELCOMING** - The form of the building reinforces the pedestrian focused “public realm” of the surrounding green courts, drive lanes, and the creek. Much of the perimeter of the building is visually permeable to allow the building to act as a lantern, drawing people together around casual social interaction or planned events.
- **GATHERING** – An indoor space where the community can gather for parties, meetings, birthdays, wakes, poetry readings, art, music performances, holiday celebrations, adult education, exercise, language and culture classes, and all the activities of a rich community life. This indoor-outdoor space is supported by a simple kitchen facility and opens to the north and west in order to connect with the creek landscape and pocket park.
- **DIY SHOP AND CREATIVE SPACE** – The residents share a strong creative culture and desire a place for art making, woodworking, welding, making home improvements, sharing tools, repairing vehicles, and sharing knowledge.
- **LAUNDRY** – A shared laundry facility will improve energy, space, and water efficiency on the site. By sharing this resource, it’s more feasible to afford efficient and high-quality machines.
- **EXERCISE** – Spaces for Zumba, yoga, and potentially some equipment are being provided at the request of residents to support health and connection in community.
- **KIDS SPACE** – Play spaces for children will be located near the community building patios so that kids can have fun while parents gather together.
- **EDUCATION** – IHAD has advised on the building’s program to ensure that it is suitable for their after school educational programs. I Have a Dream provides individualized social, emotional, and academic support to young people from low-income communities from kindergarten all the way through college, along with guaranteed tuition support.
- **INTERNET** – Internet access will be free for the use of residents and in support of programming in the community building. It is anticipated this building could be the hub for free wifi across the site.

- **PORCHES AND PATIOS** – The design provides a variety of outdoor spaces so that people have somewhere to hang out in any season or weather condition, whether they want sun, shade, shelter from the wind, or cover from the rain.
- **MAIL AND RECYCLING KIOSK** – Located to be visible and easy to access, it brings people in proximity to usable open space and the outdoor spaces to create opportunities for informal social connection. Recycling is colocated with the mail to support movement toward Zero Waste and so people spend just a little more time at the kiosk, increasing the likelihood of chance-encounters with other community members. There will also be a community board, where people can find out what’s going on in Ponderosa and the wider neighborhood.
- **RESILIENCE CENTER** – In addition to acting as a resiliency center, the building is able to house infrastructure for a solar charged battery backup or other sustainable infrastructure. It maximizes roof area available for photovoltaic panels (about 64 kW worth as currently designed).

This building facilitates the housing replacement strategy, making the most of the space created as mobile homes are replaced one-by-one or in larger blocks with compact and energy-efficient homes.

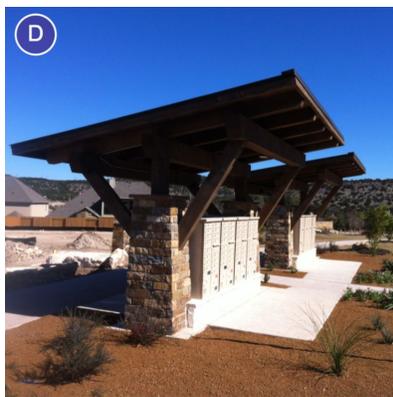
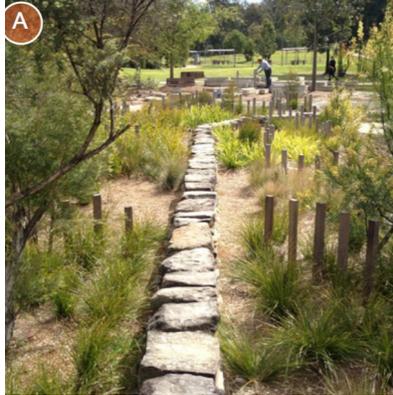
## Phasing

This Annexation, Land Use Change, and Site Review was created in careful consideration of the City’s commitment to maintaining affordability for the existing and future residents of Ponderosa and to avoid displacement as much as possible during these changes. These three Land Use Review application are for a long-term vision of the site, which will be implemented in phases and allow residents a range of choices, including the option to stay in their current mobile home, move into a new home within Ponderosa, or sell their current mobile home and move elsewhere. Careful consideration has been made to address individual concerns and desires, while still providing a long-term vision that creates community stability, affordability and resilience.

The Phasing plan provides for the initial replacement of infrastructure in Phase 1, while allowing the community to evolve over time to meet the needs of existing and future residents. Construction of new homes is estimated to begin in late 2020, concurrent with the installation of new infrastructure. New homes are proposed on the west edge of the property, which would allow current residents to move into a new house if desired, and allow for new housing/improvements to occur in the areas that. Phase 1 will commence upon the annexation of the Ponderosa Community parcel into the City of Boulder (expected in October 2019). Please see Phasing Plan associated with this application for more details.

## Architectural and Site Design Character

Ponderosa residents were asked to identify their top architectural and site design characteristics in the areas of outdoor elements, amenities, community spaces, and design style. Over the course of one week, residents used sticky dots to indicate their top preferences. Below are the community’s top preferences for various community characteristics, features, and styles. They preferred an eclectic mix of styles and the ability to improve their own homes over time, which is reflected in the design guidelines which focus on the essential while allowing for long-term freedom and resident input.





Figures 21 to 34 - Ponderosa community's top preferences for community characteristics, features, and styles

### Livability Standards

To ensure a high level of quality for the permanently affordable housing being developed in Boulder, the City developed Livability Standards as a guide for developers. The new housing units designed for Ponderosa meet and/or exceed the City's Livability Standard in all areas. The standard outlines requirements for the following areas:

- Affordable unit size
- Kitchen
- Closets and Storage Areas
- Floor Coverings
- Room sizes and shapes
- Windows / noise mitigation
- Laundry
- Air Conditioning / Air Cooling
- Heating and Hot Water
- Finish and Fixture Specifications

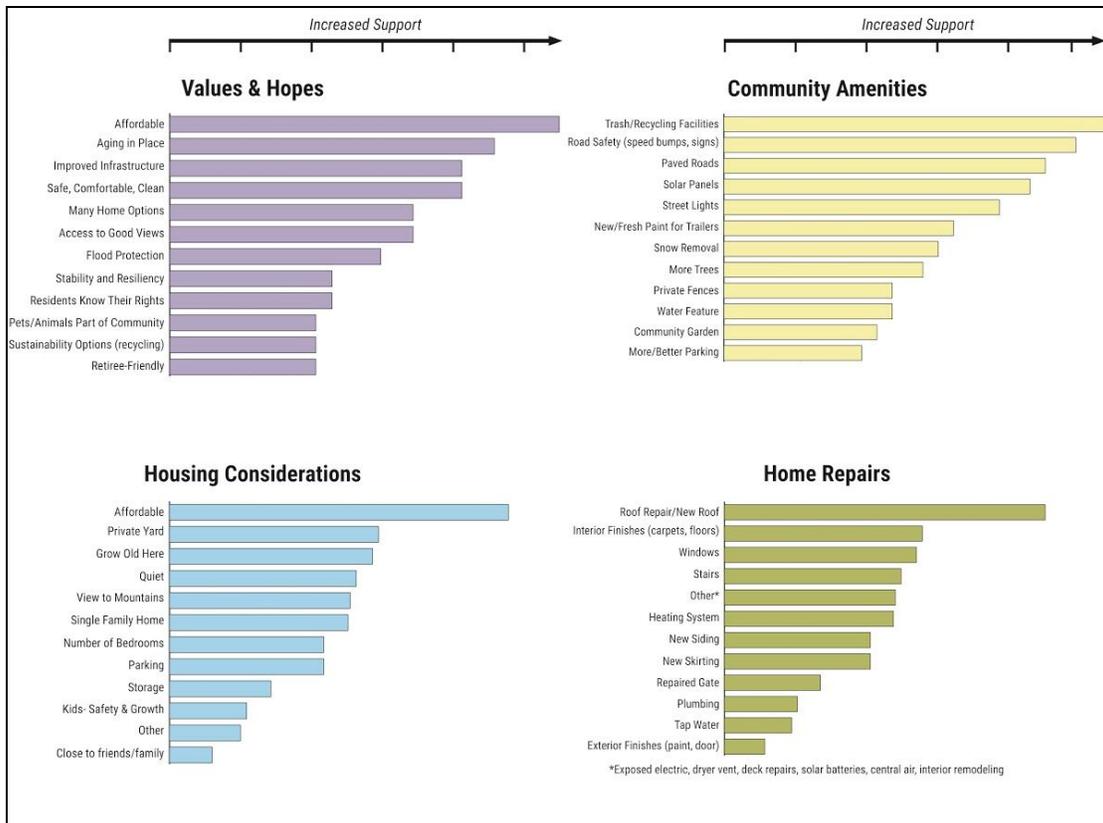


Figure 35 - Ponderosa Community's Ranking on Values & Design Features

## Open Space, Trails and Parks

The existing road along the north side of the site will be removed in the Ultimate Phase, so as to reduce automobile traffic along the creek corridor and connect the planned parks and open areas within Ponderosa to the creek corridor. This will also remove (in the long run) existing improvements from the inner and outer wetland boundary and increase pervious landscaped area along the creek corridor to reduce runoff. A portion of the property is located within the area designated OSO in the BVCP. The majority of the proposed development is located outside of the OSO; however, in order to create higher quality of open space and minimize displacement, a portion of the units in the northwest corner will be located within the OSO boundary.

An existing informal community space/park is located within the ROW on the southern boundary of the property (near Cherry and 10th). Within that area, the residents have built a wishing well, planted flowers and added steps. It is an important community space for the residents and the existing features will be relocated to the small park located in Phase 1 adjacent to the creek. These features (wishing well, plantings, memorials) will be enhanced with additional plantings and other resident desired improvements.

In the Ultimate Phase, there is a significant increase in open space and parks on the site. Currently there is very little usable open space on the site (small strip along the western and northern edge). The future parks will offer a range of amenities to the residents including community gardens, spaces for passive and active recreation, connections to nature and water, and native plantings.



*Figure 36 - Detention Pond and Open Space Rendering*

## Transportation Network, Access and Parking

### Pedestrian and Multi Modal Connections

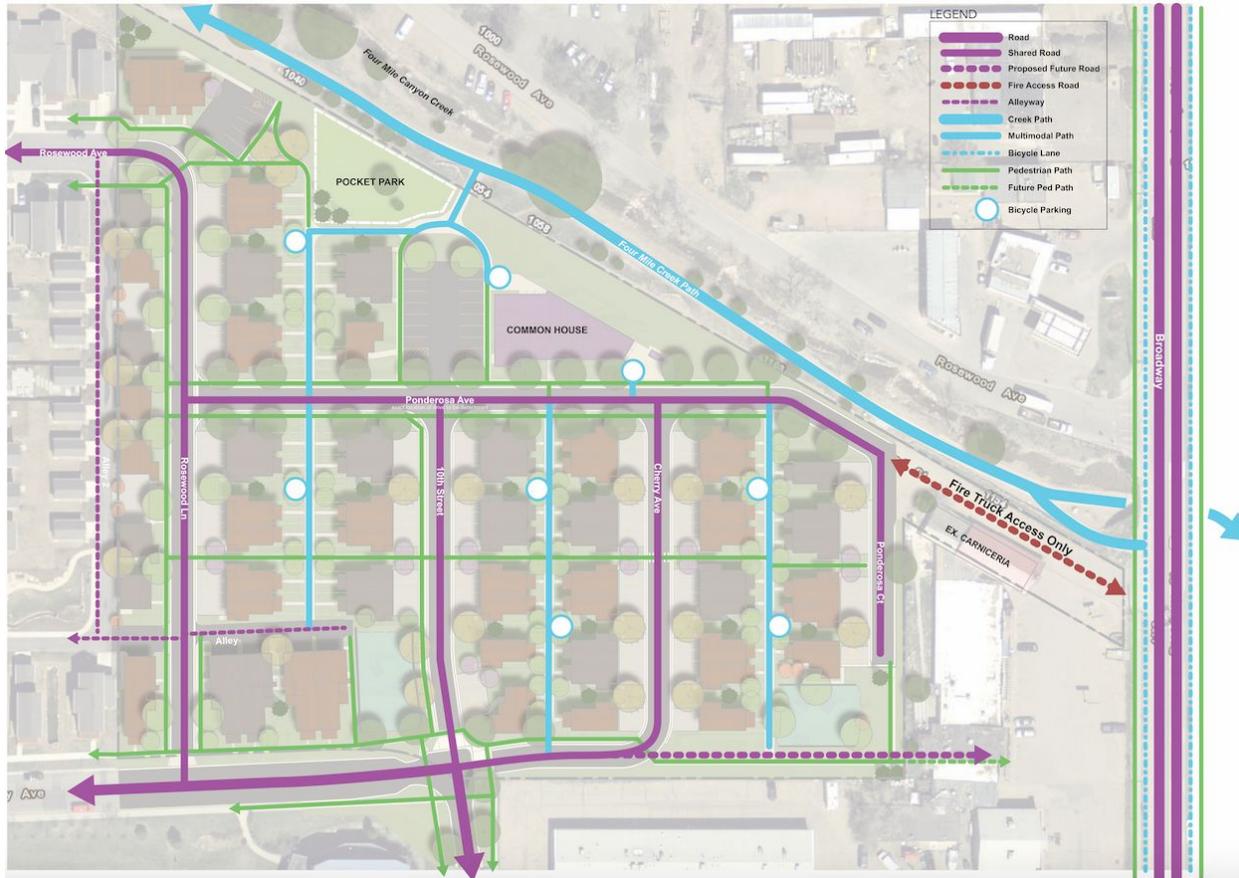


Figure 37 - Connections Map

In Phase 1, a new sidewalk will be installed along Ponderosa Court, in front of the new homes. The future design of Ponderosa will ensure the equitable distribution of safe connections throughout the development, with pedestrian connections that are separated from the roadway, new bike and ped connections to the multi use path, and safer streets which will be designed to minimize speeds and allow these connections to be shared.

### Access Improvements, Streets and Parking

Currently the community’s transportation needs are served by gravel drives that are used for parking, play, and mobility in all modes. The site is currently accessed through two driveways from public right-of-way. The main entrance is at North Broadway via a drive that connects to the northeast portion of the site and the second access is at Cherry Avenue at the southwest portion of the site. Existing onsite drives are primarily gravel/dirt and vary in width to provide two directions with non-delineated driving lanes and onsite parking.

During the community engagement activities, the residents cited many concerns with the existing road system, including speeding, dust, maintenance issues and other safety concerns due to the lack of pavement and location of the roads. The proposal seeks to find a balance between the community’s competing desires to maximize parking, provide safe and green streets for their children,

improve fire access, provide pedestrian circulation, and reduce vehicular speeds. To facilitate the conversion to a new streetscape paradigm, a phased streets improvement approach is proposed.

Anticipated access and drive improvements will be phased to account for various site improvements. The initial Phase 1 improvements will consist of a 20-foot wide asphalt drive edged with mountable curb for stormwater surface conveyance and allow for off-street residential parking. The Broadway access will remain open until such time as it is required to close, however the roadway network has been designed as to not require this connection in the future. Factors informing timing of this access point closing include planned flood improvements to the Broadway underpass, the North Boulder Transportation Plan improvements for Broadway.

Since the long-term road network eliminates the majority of the road along the creek, this road will be paved with temporary asphalt, while the remainder of the roads will be paved to full buildout and include the installation of drainage improvements such as gutter pans to convey stormwater. The limited installation of canopy trees could be explored in this phase. The ultimate phase will include the final build-out of the desired street grid. The development of new housing types within the block structure will permit off-street parking and alleviate the need for all of the community's parking to be located within the street ROW's. In this phase, a shift to parallel parking creates opportunities to incorporate streetscape elements such as: sidewalks, raised crosswalks, improved signage, street trees, bio-retention, and porous parking bays. These elements will greatly improve, safety, mobility and aesthetics for the Ponderosa community.

The parking needs of the community are typically higher than other similar communities, due to the multigenerational families, multiple work vehicles and extended family living situations. One of the primary concerns of the residents is maintaining parking throughout the redevelopment of the site. In order to address both resident's needs as well as provide for a safer streetscape, the majority of the onstreet parking will be transitioned to offstreet parking spaces provided in either a carport or garage. The new carriage homes on the west will include 2 car garages to support additional parking spaces through the building design. A small parking area will be located near the new units on the northwest corner and a larger parking lot will be located adjacent to the community building. Balancing the parking needs of the residents with the long-term annexation goals and site design criteria has been a critical component of this design.

## Utilities and Infrastructure

The City will be building the infrastructure and utilities for Ponderosa in order to ensure long-term maintenance and stability of the systems for the long term. All utilities will be public.

### Utilities

The earliest phases will address many of the concerns expressed by the residents and the City: water quality, deferred maintenance and infrastructure deterioration, stormwater quality and detention, renewable energy provision, access to the internet, paved drive lanes, and new homes.

Domestic water and sanitary sewer utility improvements are anticipated to be designed and constructed during the initial Phase 1 improvements. Currently there is one public domestic water main along the north portion of the site and one public main within Cherry Avenue that provides domestic water to the individual trailers. All homes will be individually metered. The domestic water main will be looped and placed within the existing drives and will provide new domestic water service

taps to the existing modular homes and future site developments. Fire protection improvements will include additional fire hydrants throughout the site and fire service connections for proposed residential building improvements. Future coordination with City Planning and Engineering will be required to determine requirements for fire hydrant flows during a fire or during water main maintenance operations.

Currently there is one public sanitary sewer main along the south portion of the site. Sanitary sewer improvements will include new public sanitary sewer mains within the existing drives, and new services to the existing modular homes and any future site developments. Public sanitary mains will convey sanitary sewer from the north to the south and provide manhole connections to the existing public sewer main. All public utilities will be required to be located within public utility easements. Utilities will be designed and constructed per City of Boulder Design and Construction Standards.

### Stormwater

Currently the rainwater is draining off the site onto adjacent properties in the southeast corner. With the new pavement, the project will require rainwater to be collected in detention ponds and then provide stormwater quality enhancement before it is released into the City’s stormwater system. In Phase 1 of the project, full stormwater detention ponds and water quality will be installed. Due to the location of 2-3 homes within this area, additional design and engineering will be required during tech docs to address the goals of non displacement. This coordination may include evaluating the option of locating detention and water quality where there is currently a vacant homespace, potentially relocating residents, or other solutions as determined by Housing and Human Services. Once the rain is collected in the detention basins, it is treated for water quality, before being discharged into the City’s stormwater system, typically through a pipe in the ground. The stormwater is then typically piped to nearby creeks or drainageways, so that it can return to the watershed system.



Figure 38 - Stormwater Runoff

The project will incorporate a mindful level of sustainable stormwater design utilizing the latest in stormwater runoff quality enhancement and low impact development techniques. Stormwater

management improvements will be included in all phases to convey stormwater, to provide stormwater runoff quality enhancements, and detention in a various number of solutions. Example solutions may include detention basins, water quality planters, rain gardens, permeable pavers, and low gradient swales. Currently there is no public storm infrastructure on site to support the project; however, there are storm drain pipes located in Cherry Avenue to the south and in Broadway to the east. It is anticipated that site runoff will be conveyed via surface drainage, underground stormwater infrastructure, and two above-ground detention and water quality basins, which will ultimately be convey to the public stormwater system in Broadway via a new stormwater main proposed in the 25' easement to the southeast of the site (as discussed with City staff). Options for offsite stormwater discharge into the adjacent rights-of-way may include underground stormwater infrastructure or surface discharge through weirs, sidewalk chases, and flow spreaders. Grading, drainage, and stormwater management will be designed and constructed per City of Boulder Design and Construction Standards.

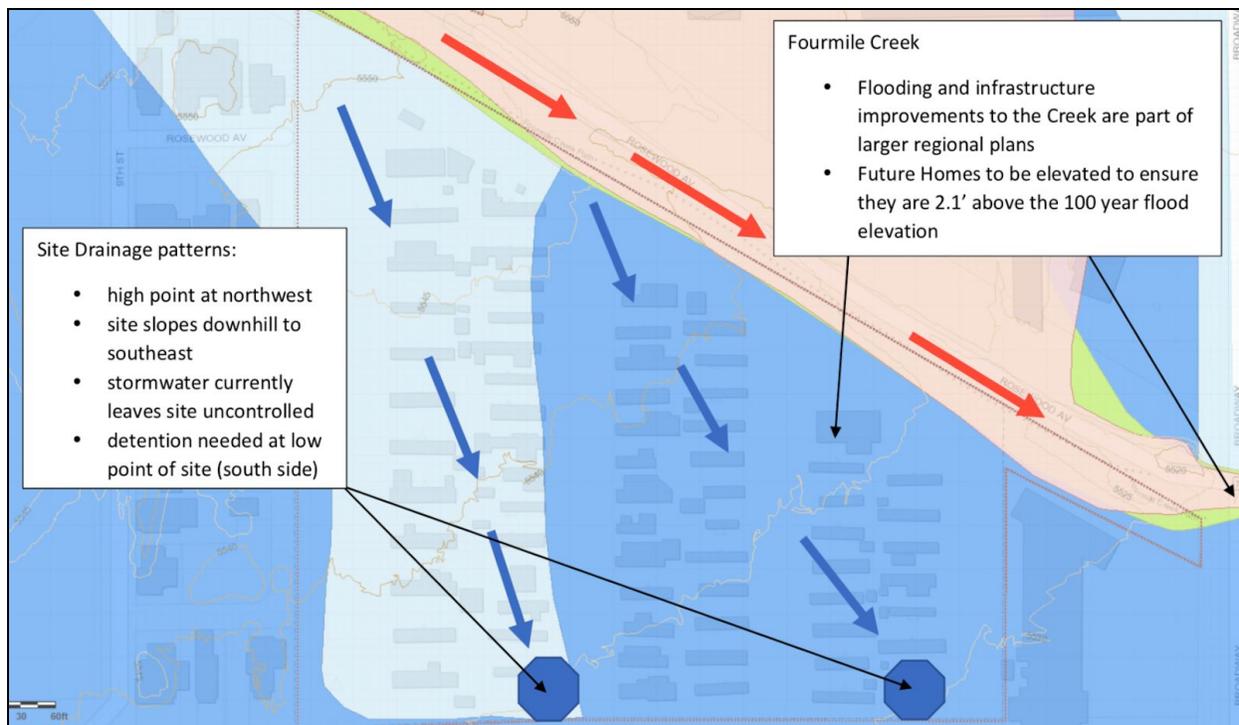


Figure 39 - Site Drainage Patterns

Stormwater management techniques being proposed may include:

- Improvements to the areas adjacent to the Fourmile Canyon Creek’s riparian corridor.
- Extended detention basins that can include park space (see photo)
- Bio-swales or bio-retention to convey rainwater overland (see photo).
- Encouraging the use of rain-barrels and rain-gardens in private yards.
- The use of porous paving systems in parking bays.
- Limiting impervious surfaces.
- Incorporating living roofs and walls into new home construction.
- Decentralized stormwater detention.
- Stormwater runoff quality enhancements based on Urban Drainage & Flood Control District.



Figure 40 - Casey Middle School Bio-Retention Area



Figure 41 - North Boulder Holiday Development Affordable Housing Alliance Residences Detention/Water Quality Basin

### Flood Protection

The proposed new residential units will be designed with raised finished floor elevations per the City's floodplain regulations. Any improvements located in the floodplain will be designed per City Floodplain Development Standards, and a Floodplain Development Permit will be required prior to final approval. Floodplain development permits will be obtained during the design process and prior to construction.

## Energy, Sustainability, and Resilience

100 Resilient Cities defines urban resilience as “the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience.” Stresses could include high unemployment, endemic violence, or an insufficient public transit system and shocks could include flooding, wildfires, or a disease outbreak.

People have different ideas of what resilience is. In order to ensure the City and residents’ resilience goals were aligned, both Ponderosa residents and relevant City staff held separate gatherings to discuss what resilience means for the community. To make sure everyone had a shared understanding, City staff brainstormed what resilience in Ponderosa looks like and developed 33 resilience drivers.

Sustainability and resilience are core values that resulted from community engagement activities with Ponderosa residents as well as City Staff. For residents, the most tangible resilience factor is social capital: preservation of existing human connections, capacity for self-reliance, independence, a DIY spirit, and a strong network for mutual support.

Currently, residents pitch in to repair the infrastructure and to improve each other’s homes, which yields strong personal connections, affinity for place, and increased affordability. This interpersonal connectivity or social capital is the hardest aspect of resiliency to accomplish through policy; it’s also the most valuable. In order to support this the site plan is designed for community including green courts, play areas, parks, patios, great pedestrian circulation, and programmatic spaces like an auto/woodshop, and gathering spaces where they can come together for fun or in times of need. The proposed governance structure will also reflect this characteristic.

Boulder Valley Comprehensive Plan (BVCP) and broader policies such as annexation/service provision, social equity, diversity, sustainable urban form, high design quality, reduced GHG emissions, zero-waste, net-zero energy, and clean mobility are all served through. Economic benefits will include job opportunities, educational and training opportunities, and the retention of critical working folks in Boulder. Most of all, this project hopes to support the well-being, safety, and happiness of Ponderosa residents.

Key sustainability metrics and resilience goals include:

- Prioritizing the building’s envelope, windows, indoor air quality, daylighting, and functional livability ensures new homes are designed for energy efficiency and conservation.
- Minimizing heating and cooling loads by efficient all-electric space heating and cooling systems that can be powered by on-site renewables.
- Massing of new homes to maximize solar access both for roof tops and south facing walls, in balance with the creation of usable open space on site.
- Wiring each new home’s roof with pre-wired for PV (photovoltaics) and designed for solar access.
- Designing the community building for maximum PV capacity to act as a solar garden for the neighborhood and resiliency center, with indoor space allocated for on-site back up batteries.
- Providing charging for electric vehicles at various locations around the site and at the community building.

- Flood proofing of future buildings in anticipation of future flood and other catastrophic events. All but one of the current homes are above the Flood Protection Elevation (FPE) and new homes and other inhabitable spaces will be elevated. Modern stormwater best practices will be implemented.
- Designing the site improvements to alleviate urban heat islands and increase comfort by using higher albedo surfaces where possible, increasing previous area on site, and greatly increasing the tree canopy.
- Improving site access and safety
- Creating accessible and universally designed homes to allow aging in place and multi-generational families.



*Figure 42 - Street Rendering*

Beyond compliance with the City of Boulder’s most recently adopted energy code, Ponderosa will reference certifications like Passive House, LEED for Homes, Architecture 2030, Living Building Challenge, and Living Community Challenge. These comparisons will hold a mirror up to Boulder codes and design standards. Certifications may be sought if there is City support. Eco-District Protocol will be explored, which is a roadmap that prioritizes equity resilience, climate protection, place, prosperity, health, wellbeing, connectivity, living infrastructure, and resource regeneration.

Residents at Workshop #1 dot-voted to confirm their alignment with the City’s resilience values.

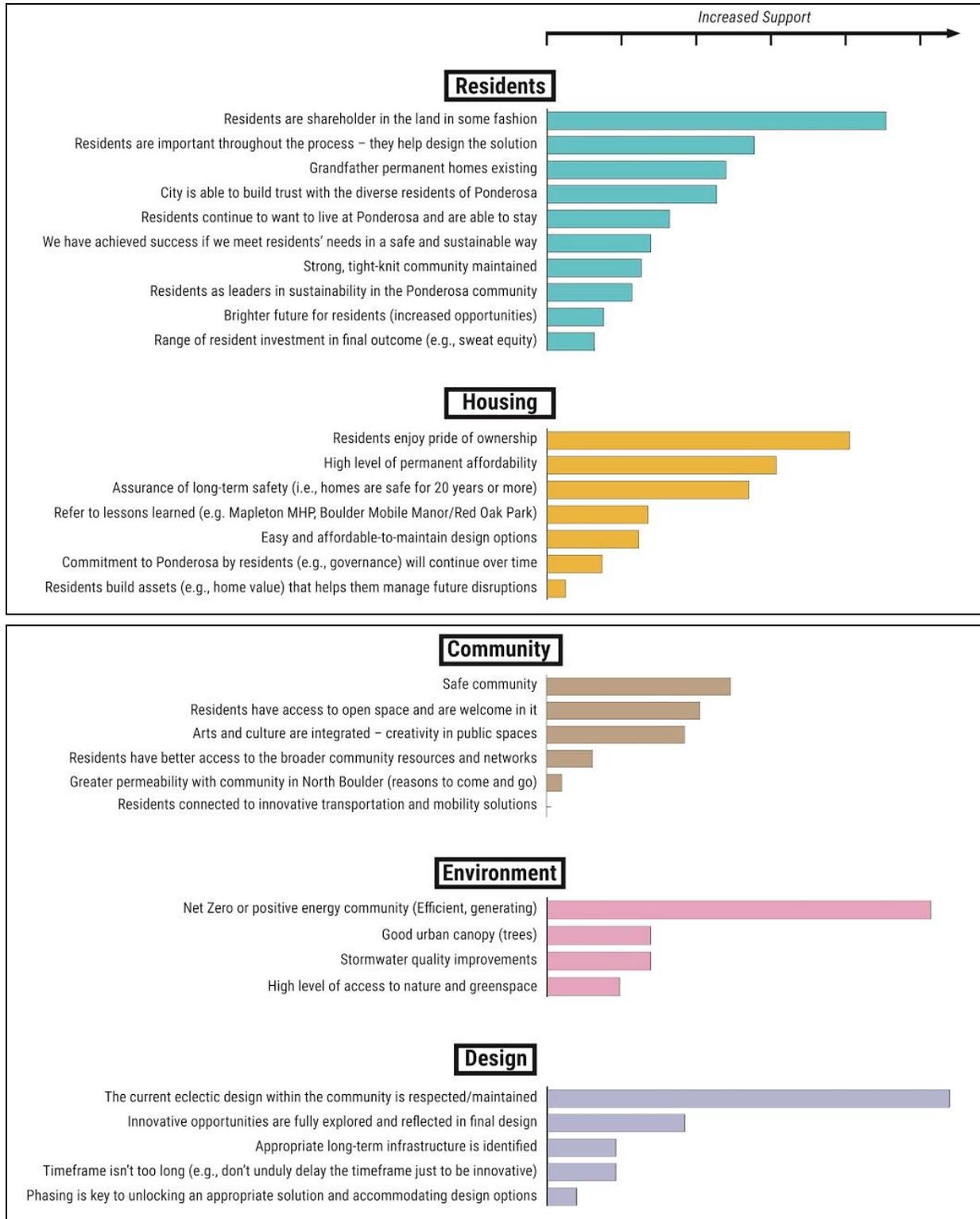


Figure 43 - Ponderosa Community's Ranking on Resilience Values

## Conclusion

The Ponderosa Community Stabilization program allows for opportunity and choices for the diverse community needs that have been identified through several years of work with the Ponderosa residents while meeting the long term annexation goals of the city. Multiple community engagement and design activities with the residents have guided the design team to provide an obtainable resilient community that is of intrinsic value to the City of Boulder. While significant infrastructure improvements will insure resident safety, a variety of housing options and a community building will provide all residents the ability to meet their individual and communal needs.

Through a long-term phasing approach, current and future community residents will benefit from the investments that the city is making in the project through improved and reliable water and sewer systems, flood protection, better fire access and safety, onsite energy production, safer streets and access points, new parks, open spaces and community building, and the availability of a range of housing options to support a wide range of housing needs and desires. This proposal has incorporated diverse input received from both the residents, neighbors, and city staff, and is informed by the principles and policies of the BVCP and the Boulder Revised Code.

The City’s and residents’ long-term planning process has continually focused on the foundational principle of minimizing displacement and retaining affordability to ensure Ponderosa is sensitively transformed into a resilient community.

**Thank you.**



Owner



Planning & Entitlements



Architecture



Engineering



Landscape Architecture



Community Engagement



Cultural Liaison



Construction Management

## Site Review Criteria

### (1) Boulder Valley Comprehensive Plan

#### **A. The proposed site plan is consistent with the land use map and the service area map and, on balance, the policies of the Boulder Valley Comprehensive Plan.**

Response: The subject property is located within the Planning Area for the Boulder Valley Comprehensive Plan (BVCP), a jointly adopted plan by the City and County. The property borders the Boulder city limits on all sides (enclave) and is located within Area II of the BVCP. Area II refers to land now under county jurisdiction where annexation to the city can be considered consistent with Policies 1.07 Adopting Limits on Physical Expansion, 1.09 Growth Requirements, and 1.16 Annexation. Per Annexation Policy 1.16.b, the city will actively pursue annexation of county enclaves, substantially developed properties along the western boundary below the Blue Line and other substantially developed Area II properties.

Proposed annexations with additional development potential need to demonstrate community benefit consistent with Boulder Valley Comprehensive Plan (BVCP) policies in order to offset the negative impacts of additional development in the Boulder Valley. For proposed residential development, emphasis is given to the provision of permanently affordable housing.

The long-term plan for this property is to replace the mobile homes with fixed foundation housing. It is anticipated that all of the replacement homes will be deed restricted as permanently affordable to low and moderate-income households and owned and managed by non-profit partners such as Habitat for Humanity and Boulder Housing Partners, the city housing authority. All new replacement homes will be size limited. Other community benefits include no involuntary displacement of the current residents, improved traffic/pedestrian access and circulation, flood mitigating stormwater management, common gardens, and a common house for community gatherings.

The project would require a land use map change since the proposal includes fixed foundation homes, which are not consistent with the Manufactured Housing land use designation or zoning. Staff recommended a change to the BVCP land use map to Medium Density Residential (MR). T

Staff recommended medium density land use based on the following:

- The site was historically designated Medium Density Residential. The Manufactured Housing designation was created as part of the 2000 Major Update to the Boulder Valley Comprehensive Plan. At that time four (4) manufactured home parks in unincorporated Boulder County were designated as Manufactured Housing to “signal the city and county’s intent to preserve the existing mobile home parks”;
- The purpose of the Manufactured Housing land use designation is to preserve existing manufactured home parks to preserve affordable housing options within the Boulder Valley. The Concept Plan proposes 100% affordable housing and is currently developed in the medium density range (6 to 14 dwelling units per acre);
- A change to Medium Density Residential would be compatible with adjacent land uses and development. The land use designation for the Rosewood site (directly to the west) changed from a Manufactured Housing designation to Medium Density Residential in 2011 as part of an annexation.

- Per the North Boulder Subcommunity Plan, existing residential neighborhoods should maintain existing zoning, density, and lot sizes (section 9). Also, “Housing near the Broadway corridor, across from the Village Center, should be developed at mixed densities, at an overall average density equivalent to low and medium density residential” (section 11). The two closest residential examples, 1000 Rosewood and the Foothills Community, have densities in the Medium Density Residential range. The project would immediately abut RM-1 zoning. Low density residential uses are not recommended, as that density is generally confined to existing development to the south along Union and Utica.

Residential development is an appropriate use of the property. The property was purchased by the city to ensure long-term affordability for the existing residents and to address ongoing concerns of the condition of the current infrastructure. Resolution 1217 was passed by Council in October 2017 to ensure the long-term sustainability, resiliency, and affordability of the Ponderosa mobile home park as a permanently affordable community. In addition, housing was anticipated in this area by the North Boulder Subcommunity Plan (NBSP). Per section 11, “(ii) Housing near the Broadway corridor, across from the Village Center, should be developed at mixed densities, at an overall average density equivalent to low and medium density residential.”

Medium density residential development on the site supports a compact development pattern and would take advantage of existing urban services. The building scales and styles appear similar to other nearby developments and would not be of a size, scale, or orientation that would appear out of character with existing development in the area.

The project is sensitive to the Four Mile Canyon Creek stream corridor and will be developed to meet specific regulations to not impact the flood plain and adjacent riparian areas. The proposal appears compatible with surrounding development. The proposal for a 100 percent affordable residential development of 68 to 73 permanently affordable residential units supports these policies. The proposal will preserve and enhance existing residential units.

The proposal would preserve the affordability of the existing mobile home park and will allow for existing residents to purchase fixed-foundation homes on the site. Reasonable efforts will be made to resolve health and safety issues following annexation, including new connections to city services. There will be no loss of housing and a primary goal of the project is non-displacement of residents.

**B. The proposed development shall not exceed the maximum density associated with the Boulder Valley Comprehensive Plan residential land use designation. Additionally, if the density of existing residential development within a three-hundred-foot area surrounding the site is at or exceeds the density permitted in the Boulder Valley Comprehensive Plan, then the maximum density permitted on the site shall not exceed the lesser of:**

- (i) The density permitted in the Boulder Valley Comprehensive Plan, or**
- (ii) The maximum number of units that could be placed on the site without waiving or varying any of the requirements of Chapter 9-8, "Intensity Standards," B.R.C. 1981, except as permitted for building sites with permanently affordable units meeting the requirements of Paragraph 9-10-3(c)(4), "Nonconforming Permanently Affordable Units," B.R.C. 1981.**

Response: The proposed land use designation of Medium Density designation is characterized by a mix of housing types (from single family to attached units) that are generally situated near

neighborhood and community shopping areas or along some of the major arterials of the city. Medium density residential development on the site supports a compact development pattern and would take advantage of existing urban services.

**C. The proposed development's success in meeting the broad range of BVCP policies considers the economic feasibility of implementation techniques required to meet other site review criteria**

Response: The focus of this stabilization project is to annex the property in order to install infrastructure and allow for the future construction of fixed foundation, affordable homes that provide flood protection and economic viability for existing and future residents.

**(2) Site Design**

**Projects should preserve and enhance the community's unique sense of place through creative design that respects historic character, relationship to the natural environment, multi-modal transportation connectivity and its physical setting. Projects should utilize site design techniques which are consistent with the purpose of site review in Subsection (a) of this section and enhance the quality of the project. In determining whether this subsection is met, the approving agency will consider the following factors:**

**A. Open Space: Open space, including, without limitation, parks, recreation areas and playgrounds**

**(i) Useable open space is arranged to be accessible and functional and incorporates quality landscaping, a mixture of sun and shade and places to gather;**

**(ii) Private open space is provided for each detached residential unit;**

**(iii) The project provides for the preservation of or mitigation of adverse impacts to natural features, including, without limitation, healthy long-lived trees, significant plant communities, ground and surface water, wetlands, riparian areas, drainage areas and species on the federal Endangered Species List, "Species of Special Concern in Boulder County" designated by Boulder County, or prairie dogs ( *Cynomys ludovicianus* ), which is a species of local concern, and their habitat;**

**(iv) The open space provides a relief to the density, both within the project and from surrounding development;**

**(v) Open space designed for active recreational purposes is of a size that it will be functionally useable and located in a safe and convenient proximity to the uses to which it is meant to serve;**

**(vi) The open space provides a buffer to protect sensitive environmental features and natural areas; and**

**(vii) If possible, open space is linked to an area- or city-wide system.**

Response: Currently there is very little open space within the community.. The project is adjacent to Boulder's Four Mile Creek Multi-Use Path. Communal open space and gardens for the project are directly connected to this city-wide transit system. Private open space per dwelling unit is not required for residential units within the RM-2 zone district, however the site design incorporates shared yard and outdoor spaces between all the new units. Each new home will also have small areas of private space for personal use, which can be fenced for animals, allow for outdoor furniture and playspaces for families and children. The shared open spaces will be designed and programmed with the residents to include passive and active recreation opportunities including community gardens, play areas, passive recreation spaces for relaxation and others as determined through future community engagement.

The proposal includes a formal neighborhood park and community gardens on the north edge of the property, adjacent to the creek, which will connect the proposed open spaces and parks to the city's open space system. This open space will also provide a buffer to the creek and designated wetland areas along the creek.. The common building will also provide interior common open space for residents. The project's community open space and gardens are adjacent to the existing Fourmile Creek Multi-Use path. Together, this open space and creek path act as a buffer between the future and existing homes to the south and the Fourmile Creek Path.

**(B) Open Space in Mixed Use Developments (Developments That Contain a Mix of Residential and Nonresidential Uses)**

**(i) The open space provides for a balance of private and shared areas for the residential uses and common open space that is available for use by both the residential and nonresidential uses that will meet the needs of the anticipated residents, occupants, tenants and visitors of the property; and**

**(ii) The open space provides active areas and passive areas that will meet the needs of the anticipated residents, occupants, tenants and visitors of the property and are compatible with the surrounding area or an adopted plan for the area.**

Response: This is not a mixed use project.

**(C) Landscaping**

**(i) The project provides for aesthetic enhancement and a variety of plant and hard surface materials, and the selection of materials provides for a variety of colors and contrasts and the preservation or use of local native vegetation where appropriate;**

**(ii) Landscape design attempts to avoid, minimize or mitigate impacts on and off site to important native species, healthy, long-lived trees, plant communities of special concern, threatened and endangered species and habitat by integrating the existing natural environment into the project;**

**(iii) The project provides significant amounts of plant material sized in excess of the landscaping requirements of Sections [9-9-12](#), "Landscaping and Screening Standards," and [9-9-13](#), "Streetscape Design Standards," B.R.C. 1981; and**

**(iv) The setbacks, yards and useable open space along public rights of way are landscaped to provide attractive streetscapes, to enhance architectural features and to contribute to the development of an attractive site plan.**

Response: There are currently very few trees or native species of plants on this property. The majority of the property is covered by mobile homes, accessory structures, and dirt roads. The remaining open areas on the site are typically located behind private fences and have a wide range of landscaping improvements ranging from hardscape to vegetable gardens to shrubs. In addition, most of the large trees have been removed over the years due to conflicts with sewer lines and overhead electrical lines. We have completed a tree inventory of the property, and will work to minimize impacts to any healthy, long-lived tree on the property. minimize

Currently, there are very few trees and no streetscape landscaping. The proposal will greatly increase the amounts of plant material. The site design has been carefully organized to allow for the placement of trees with utilities to ensure that sufficient space is allocated to both. The priority to minimize displacement and replace infrastructure is the primary driver for much of the site design, and the landscaping has been carefully organized to increase the amount of plantings and street trees to the extent possible. In addition, rooftop solar PV will be installed on available roofs and new buildings. The buildings and shade trees have been placed to minimize shading on the photovoltaic panels.

During the community engagement with the residents, we conducted a image preference survey of landscaping treatments. The community indicated a preference for an mix of organic and organized type of landscaping that reflects the unstructured nature of this community and the desire to have a range of options. Of particular importance were protecting an important community amenity currently located with the city ROW along Cherry, which includes a wishing well, flowering plants and landscaping and pet memorials. This is proposed to be relocated to the park that is to be constructed in the first phase. Additional community outreach with the residents is expected to determine more detail about future landscaping, plantings, garden amenities including a community garden as well as the type of plants desired by the residents.

**(D) Circulation: Circulation, including, without limitation, the transportation system that serves the property, whether public or private and whether constructed by the developer or not**

**(i) High speeds are discouraged or a physical separation between streets and the project is provided;**

**(ii) Potential conflicts with vehicles are minimized;**

**(iii) Safe and convenient connections are provided that support multi-modal mobility through and between properties, accessible to the public within the project and between the project and the existing and proposed transportation systems, including, without limitation, streets, bikeways, pedestrian ways and trails;**

**(iv) Alternatives to the automobile are promoted by incorporating site design techniques, land use patterns and supporting infrastructure that supports and encourages walking, biking and other alternatives to the single-occupant vehicle;**

**(v) Where practical and beneficial, a significant shift away from single-occupant vehicle use to alternate modes is promoted through the use of travel demand management techniques;**

**(vi) On-site facilities for external linkage are provided with other modes of transportation, where applicable;**

Response: The project is adjacent to Boulder's Four Mile Creek Multi-Use Path. Connections will be provided from Ponderosa to the multi use path system. This city-wide transit system provides multi modal opportunities for the residents. Bike racks will be installed.

**(vii) The amount of land devoted to the street system is minimized; and**

**(viii) The project is designed for the types of traffic expected, including, without limitation, automobiles, bicycles and pedestrians, and provides safety, separation from living areas and control of noise and exhaust.**

Response: The roadway system has been carefully designed to minimize the long-term paved connections and streets within the community. The current roadway network is very typical of a mobile home community, and in order to maintain access to existing homes, the proposed roadway design offers a phased approach in which all roads will be paved.. A small segment of road is proposed to be removed in the first phase (near the detention pond). The roads that will be removed in the long term (the main access road along the creek) will be paved with temporary asphalt in order to allow for the removal of the pavement and the installation of green spaces/ parks once that phase of buildout is achieved. The width of the roads is also constrained by the spacing of the existing trailers. The roads are designed to fit within these existing constraints and provide the necessary back-up distances and fire access requirements. The new homes along the western edge will utilize the existing public ROW in 1000 Rosewood to access the garages/driveways, which will allow a continuous sidewalk and new streetscape on the westernmost street (Rosewood Court).

## **(E) Parking**

**(i) The project incorporates into the design of parking areas measures to provide safety, convenience and separation of pedestrian movements from vehicular movements;**

**(ii) The design of parking areas makes efficient use of the land and uses the minimum amount of land necessary to meet the parking needs of the project;**

**(iii) Parking areas and lighting are designed to reduce the visual impact on the project, adjacent properties and adjacent streets; and**

**(iv) Parking areas utilize landscaping materials to provide shade in excess of the requirements in Subsection 9-9-6(d), and [Section 9-9-14](#), "Parking Lot Landscaping Standards," B.R.C. 1981.**

Response: The parking needs of the community are typically higher than other single family communities, due to the multigenerational families, multiple work vehicles and extended family living situations. One of the primary concerns of the residents is maintaining parking throughout the redevelopment of the site. In order to address both resident's needs as well as provide for a safer

streetscape, the majority of the onstreet parking will be transitioned to offstreet parking spaces provided in either a carport or garage. The new carriage homes on the west will include 2 car garages to support additional parking spaces through the building design. A small parking area will be located near the new units on the northwest corner and a larger parking lot will be located adjacent to the community building. Balancing the parking needs of the residents with the long-term annexation goals and site design criteria has been a critical component of this design.

**(F) Building Design, Livability and Relationship to the Existing or Proposed Surrounding Area**

**(i) The building height, mass, scale, orientation, architecture and configuration are compatible with the existing character of the area or the character established by adopted design guidelines or plans for the area;**

**(ii) The height of buildings is in general proportion to the height of existing buildings and the proposed or projected heights of approved buildings or approved plans or design guidelines for the immediate area;**

**(iii) The orientation of buildings minimizes shadows on and blocking of views from adjacent properties;**

**(iv) If the character of the area is identifiable, the project is made compatible by the appropriate use of color, materials, landscaping, signs and lighting;**

**(v) Projects are designed to a human scale and promote a safe and vibrant pedestrian experience through the location of building frontages along public streets, plazas, sidewalks and paths, and through the use of building elements, design details and landscape materials that include, without limitation, the location of entrances and windows, and the creation of transparency and activity at the pedestrian level;**

**(vi) To the extent practical, the project provides public amenities and planned public facilities;**

**(vii) For residential projects, the project assists the community in producing a variety of housing types, such as multifamily, townhouses and detached single family units, as well as mixed lot sizes, number of bedrooms and sizes of units;**

**(viii) For residential projects, noise is minimized between units, between buildings and from either on-site or off-site external sources through spacing, landscaping and building materials;**

**(ix) A lighting plan is provided which augments security, energy conservation, safety and aesthetics;**

**(x) The project incorporates the natural environment into the design and avoids, minimizes or mitigates impacts to natural systems;**

**(xi) Buildings minimize or mitigate energy use; support on-site renewable energy generation and/or energy management systems; construction wastes are minimized; the project mitigates**

urban heat island effects; and the project reasonably mitigates or minimizes water use and impacts on water quality;

(xii) Exteriors of buildings present a sense of permanence through the use of authentic materials such as stone, brick, wood, metal or similar products and building material detailing;

(xiii) Cut and fill are minimized on the site, the design of buildings conforms to the natural contours of the land, and the site design minimizes erosion, slope instability, landslide, mudflow or subsidence, and minimizes the potential threat to property caused by geological hazards;

(xiv) In the urbanizing areas along the Boulder Valley Comprehensive Plan boundaries between Area II and Area III, the building and site design provide for a well-defined urban edge; and

(xv) In the urbanizing areas located on the major streets shown on the map in Appendix A to this title near the Boulder Valley Comprehensive Plan boundaries between Area II and Area III, the buildings and site design establish a sense of entry and arrival to the City by creating a defined urban edge and a transition between rural and urban areas.

Response: The phased project provides a variety of housing types for the existing residents including continued use of the mobile homes as well as an range of other housing types on fixed foundations. All units are intended to be affordable and will likely be built by Flatirons Habitat for Humanity in order to ensure both affordable and high quality construction. The sizing of the units and the number of bedrooms per unit will vary depending on the specific housing type the owner chooses.

New homes will use high quality, low maintenance building materials to ensure durability and affordability. The units will be designed to meet the livability standards of the City's housing program, and will be subject to the community Design Guidelines (which are shown on page 2 of the Architectural drawings). The design guidelines include paint colors, fencing, carport and porch design for the new homes. Architectural character will have emphasis on complementing both the existing mobile homes as well as neighboring properties, such as 1000 Rosewood.

New homes will be spaced to meet building code and fire spacing standards. New home construction will meet energy code requirements and will include fire sprinklers and be elevated above the flood protection elevation.

The project is improving the City's urban edge by annexing an area II county enclave into the City of Boulder. Ponderosa has been a county enclave for many years, and annexation of this highly urbanized site will allow for upgraded connections to the city's water, wastewater and stormwater systems and provide city police and fire services to the community, which will ensure long-term resilience and stability for current and future residents.

**(G) Solar Siting and Construction: For the purpose of ensuring the maximum potential for utilization of solar energy in the City, all applicants for residential site reviews shall place streets, lots, open spaces and buildings so as to maximize the potential for the use of solar energy in accordance with the following solar siting criteria:**

**(i) Placement of Open Space and Streets:** Open space areas are located wherever practical to protect buildings from shading by other buildings within the development or from buildings on adjacent properties. Topography and other natural features and constraints may justify deviations from this criterion.

**(ii) Lot Layout and Building Siting:** Lots are oriented and buildings are sited in a way which maximizes the solar potential of each principal building. Lots are designed to facilitate siting a structure which is unshaded by other nearby structures. Wherever practical, buildings are sited close to the north lot line to increase yard space to the south for better owner control of shading.

**(iii) Building Form:** The shapes of buildings are designed to maximize utilization of solar energy. Buildings shall meet the solar access protection and solar siting requirements of [Section 9-9-17](#), "Solar Access," B.R.C. 1981.

**(iv) Landscaping:** The shading effects of proposed landscaping on adjacent buildings are minimized.

Response: The new homes will be sited so as to maximize solar orientation and facilitate maximum solar production for the entire community. An innovative approach to community solar is being proposed for this project, which seeks to create equity between all community members through sharing all solar production, regardless if the household has solar panels on their personal structure. We have been working with Xcel energy and the city to identify solutions that will allow this innovative approach to be integrated into the first phase of development. Solutions include master metering, e-gauges, and integrated billing through the property management.

Street and shade trees will be carefully placed to minimize shading and new rooftops have been designed to maximize solar exposure. Energy production is one of the key sustainability goals of this project, and has been identified as a priority by both residents and the city. New homes will be electric only, in order to maximize the use of this renewable resource. Existing trailers will continue to use gas until such time as this can be replaced with electricity.

**(H) Additional Criteria for Poles Above the Permitted Height: No site review application for a pole above the permitted height will be approved unless the approving agency finds all of the following:**

**(i) The light pole is required for nighttime recreation activities which are compatible with the surrounding neighborhood, light or traffic signal pole is required for safety or the electrical utility pole is required to serve the needs of the City; and**

**(ii) The pole is at the minimum height appropriate to accomplish the purposes for which the pole was erected and is designed and constructed so as to minimize light and electromagnetic pollution.**

Response: No light poles will be above the permitted height

**(I) Land Use Intensity Modifications**

**(i) Potential Land Use Intensity Modifications:**

**A. The density of a project may be increased in the BR-1 district through a reduction of the lot area requirement or in the Downtown (DT), BR-2 or MU-3 districts through a reduction in the open space requirements.**

**B. The open space requirements in all Downtown (DT) districts may be reduced by up to one hundred percent.**

**C. The open space per lot requirements for the total amount of open space required on the lot in the BR-2 district may be reduced by up to fifty percent.**

**D. Land use intensity may be increased up to twenty-five percent in the BR-1 district through a reduction of the lot area requirement.**

**(ii) Additional Criteria for Land Use Intensity Modifications: A land use intensity increase will be permitted up to the maximum amount set forth below if the approving agency finds that the criteria in paragraph (h)(1) through Subparagraph (h)(2)(H) of this section and following criteria have been met:**

**A. Open Space Needs Met: The needs of the project's occupants and visitors for high quality and functional useable open space can be met adequately;**

**B. Character of Project and Area: The open space reduction does not adversely affect the character of the development or the character of the surrounding area; and**

**C. Open Space and Lot Area Reductions: The specific percentage reduction in open space or lot area requested by the applicant is justified by any one or combination of the following site design features not to exceed the maximum reduction set forth above:**

**1. Close proximity to a public mall or park for which the development is specially assessed or to which the project contributes funding of capital improvements beyond that required by the parks and recreation component of the development excise tax set forth in chapter 3-8, "Development Excise Tax," B.R.C. 1981: maximum one hundred percent reduction in all Downtown (DT) districts and ten percent in the BR-1 district;**

**2. Architectural treatment that results in reducing the apparent bulk and mass of the structure or structures and site planning which increases the openness of the site: maximum five percent reduction;**

**3. A common park, recreation or playground area functionally useable and accessible by the development's occupants for active recreational purposes and sized for the number of inhabitants of the development, maximum five percent reduction; or developed facilities within the project designed to meet the active recreational needs of the occupants: maximum five percent reduction;**

4. Permanent dedication of the development to use by a unique residential population whose needs for conventional open space are reduced: maximum five percent reduction;

5. The reduction in open space is part of a development with a mix of residential and nonresidential uses within a BR-2 zoning district that, due to the ratio of residential to nonresidential uses and because of the size, type and mix of dwelling units, the need for open space is reduced: maximum fifteen percent reduction; and

6. The reduction in open space is part of a development with a mix of residential and nonresidential uses within a BR-2 zoning district that provides high quality urban design elements that will meet the needs of anticipated residents, occupants, tenants and visitors of the property or will accommodate public gatherings, important activities or events in the life of the community and its people, that may include, without limitation, recreational or cultural amenities, intimate spaces that foster social interaction, street furniture, landscaping and hard surface treatments for the open space: maximum twenty-five percent reduction.

Response: The proposal is not requesting an increase in land use intensity.

**(J) Additional Criteria for Floor Area Ratio Increase for Buildings in the BR-1 District:**

Response: N/A

**(K) Additional Criteria for Parking Reductions: The off-street parking requirements of [Section 9-9-6, "Parking Standards," B.R.C. 1981](#), may be modified as follows:**

(i) **Process:** The city manager may grant a parking reduction not to exceed fifty percent of the required parking. The planning board or city council may grant a reduction exceeding fifty percent.

(ii) **Criteria:** Upon submission of documentation by the applicant of how the project meets the following criteria, the approving agency may approve proposed modifications to the parking requirements of [Section 9-9-6, "Parking Standards," B.R.C. 1981](#) (see tables 9-1, 9-2, 9-3 and 9-4), if it finds that:

**A. For residential uses, the probable number of motor vehicles to be owned by occupants of and visitors to dwellings in the project will be adequately accommodated;**

**B. The parking needs of any nonresidential uses will be adequately accommodated through on-street parking or off-street parking;**

**C. A mix of residential with either office or retail uses is proposed, and the parking needs of all uses will be accommodated through shared parking;**

**D. If joint use of common parking areas is proposed, varying time periods of use will accommodate proposed parking needs; and**

**E. If the number of off-street parking spaces is reduced because of the nature of the occupancy, the applicant provides assurances that the nature of the occupancy will not change.**

Response: The proposal is not requesting a parking reduction.

**(L) Additional Criteria for Off-Site Parking: The parking required under [Section 9-9-6](#), "Parking Standards," B.R.C. 1981, may be located on a separate lot if the following conditions are met:**

Response: The proposal is not requesting off street parking.

## Annexation Criteria/Policies

**(a) Annexation will be required before adequate facilities and services are furnished;**

Response: Annexation, BVCP land use change, and site review are all occurring simultaneously for the Ponderosa Mobile Home Park. No new facilities, services, or other site improvements will be performed until all appropriate land use entitlements, technical document approvals, and permits have been approved.

**(b) The city will actively pursue annexation of county enclaves, Area II properties along the western boundary, and other fully developed Area II properties. County enclave means an unincorporated area of land entirely contained within the outer boundary of the city. Terms of annexation will be based on the amount of development potential as described in (c), (d), and (e) of this policy. Applications made to the county for development of enclaves and Area II lands in lieu of annexation shall be referred to the city for review and comment. The county shall attach great weight to the city's response and may require that the landowner conform to one or more of the city's development standards so that any future annexation into the city will be consistent and compatible with the city's requirements.**

Response: The subject property is located within the Planning Area for the Boulder Valley Comprehensive Plan (BVCP), a jointly adopted plan by the City and County. The property borders the Boulder city limits on all sides (enclave) and is located within Area II of the BVCP. Area II refers to land now under county jurisdiction where annexation to the city can be considered consistent with Policies 1.07 Adopting Limits on Physical Expansion, 1.09 Growth Requirements, and 1.16 Annexation. Per Annexation Policy 1.16.b, the city will actively pursue annexation of county enclaves, substantially developed properties along the western boundary below the Blue Line and other substantially developed Area II properties.

**(c) Annexation of existing substantially developed areas will be offered in a manner and on terms and conditions which respect existing lifestyles and densities, and the city will expect these areas to be brought to city standards only where necessary to protect the health and safety of the residents of the subject area or of the city. The city, in developing annexation plans of reasonable cost, may phase new facilities and services. The County, which now has jurisdiction over these areas, shall be a supportive partner with the city in annexation efforts to the extent the county supports the terms and conditions being proposed.**

Response: The goal of this annexation and redevelopment project is to improve the health and safety conditions for this affordable housing community. A phased redevelopment plan will provide improved utilities (water, sewer, electrical) to all homes while slowly replacing the existing mobile homes with fixed foundation homes. Maintaining the current lifestyles and densities of the residents is a primary driver behind the project's minimal displacement policy.

**(d) In order to reduce the negative impacts of new development in the Boulder Valley, the city shall annex Area II land with significant development or redevelopment potential only on a very limited basis. Such annexations will be supported only if the annexation provides a special opportunity or benefit to the city.**

**For annexation considerations, emphasis shall be given to the benefits achieved from the creation of permanently affordable housing. Provision of the following may also be considered a special opportunity or benefit: receiving sites for transferable development rights (TDRs), reduction of future employment projections, land and/or facilities for public purposes over and above that required by the city's land use regulations, environmental preservation, or other amenities determined by the city to be a special opportunity or benefit. Parcels that are proposed for annexation that are already developed and which are seeking no greater density or building size would not be required to assume and provide that same level of community benefit as vacant parcels unless and until such time as an application for greater development were submitted.**

Response: The long-term plan for this City owned property is to replace the mobile homes with fixed foundation housing. Ninety percent or more of the replacement homes are anticipated to be deed restricted as permanently affordable to low and moderate-income households and owned and managed by non-profit partners such as Habitat for Humanity and Boulder Housing Partners, the city housing authority. All new replacement homes will be size limited. Other community benefits include no involuntary displacement of the current residents, improved traffic/pedestrian access and circulation, flood mitigating stormwater management, common gardens, and a common house for community gatherings.

**(e) Annexation of substantially developed properties that allows for some additional residential units or commercial square footage will be required to demonstrate community benefit commensurate with their impacts. Further, annexations that resolve an issue of public health without creating additional development impacts should be encouraged.**

Response: The project provides significant community benefit in the form of 100% affordable housing (64-74 units). These lower-income residents will receive improved utility services, improving their overall living conditions. The project also features a new common house, the location of additional resources for the community (ie. laundry room, meeting space).

**(f) There will be no annexation of areas outside the boundaries of the Boulder Valley Planning Area, with the possible exception of annexation of acquired open space.\**

Response: N/A

**(g) Area II is anticipated to become part of the city within the planning period. Area III is not anticipated to become part of the city within the planning period. However, publicly owned property located in Area III and intended to remain in Area III may be annexed to the city if the property requires less than a full range of urban services or requires inclusion under city jurisdiction for health, welfare and safety reasons.**

Response: N/A - the property is within Area II

**(h) The Gunbarrel-Heatherwood subcommunity, which is unique because of its size, developed at an urban density with city water and sewer service. The commercial and industrial portion of Gunbarrel-Heatherwood is annexed to the city, while much of the residential development is still unincorporated. The Gunbarrel-Heatherwood Subcommunity is also unique because of the shared jurisdiction for planning and service provision among the county, the city, the Gunbarrel**

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**General Improvement District and other special districts. Those areas annexed to the city are provided with city services, although deficiencies exist in developed park facilities and services. In the unincorporated area, a variety of arrangements for service provision exist. Some services, such as road maintenance, flood control, and law enforcement, are primarily provided by the county. Area residents now tax themselves through the Gunbarrel General Improvement District to pay for open space acquisitions and possible park and major roadway improvements. Fire protection is provided to the unincorporated area by Boulder Rural Fire District. Although interest in voluntary annexation has been limited, the city and county continue to support the eventual annexation of Gunbarrel-Heatherwood. If resident interest in annexation does occur in the future, the city and county will negotiate new terms of annexation with the residents.**

Response: N/A

## Land Use Designation Change Criteria

### **(a) The proposed change is consistent with the policies and overall intent of the Comprehensive Plan.**

#### **Policy 1.16 - Annexation**

Response: The property borders the Boulder city limits on all sides (enclave) and is located within Area II of the BVCP. The property is considered to be substantially developed. The proposal provides community benefit by deed restricting replacement homes as permanently affordable to low and moderate-income households. In addition, the annexation request meets applicable state annexation requirements.

The proposal would respect existing lifestyles and densities. A change to Medium Density Residential would be compatible with adjacent land uses and development. The existing mobile home park represents medium density development. The goal is non-displacement of existing residents and mobile homes would gradually and voluntarily be replaced by new, similar-sized fixed foundation homes.

#### **2.01 Unique Community Identity**

Response: The design and livability standards will allow for flexibility to preserve eclectic nature of community, integrate art and allow for individualism. Community art and community identification will be incorporated into the design to create a sense of place and unique community identity that reflects the history of Ponderosa as well as the future.

#### **2.03 Compact Development Pattern**

Response: Medium density residential development on the site supports a compact development pattern and would take advantage of existing urban services.

#### **2.10 Preservation and Support for Residential Neighborhoods**

Response: The building scales and styles are similar to other nearby developments and are of a size, scale, or orientation that be in character with existing development in the area.

#### **2.24 Commitment to a Walkable and Accessible City**

Response: The proposal is within walking distance (1/4 mile) of services, retail, and restaurants along Broadway – the intended “Village Center” of North Boulder. Connections are proposed to the adjacent Four Mile Canyon Creek path. Additional consideration needs to be given to providing a sidewalk along the Cherry Ave. / 10th St. frontage and safe pedestrian/bike connections within the development.

#### **2.33 Sensitive Infill and Redevelopment**

Response: The project is sensitive to the Four Mile Canyon Creek stream corridor, including associated wetland buffer areas, and will be developed to meet specific regulations to not impact the flood plain

and adjacent riparian areas. The proposal appears compatible with surrounding development. The proposed site and building design will be assessed further at Site Review.

**2.37 Enhanced Design for Private Sector Projects, 2.21 Commitment to a Walkable and Accessible City, & 2.36 Physical Design for People**

Response: The design creates a more efficient internal street grid which further promotes walkability and accessibility for this highly walkable and accessible site. New connections and onstreet and offstreet pedestrian connections will be provided to offer a range of options.

**2.41 Enhanced Design for All Projects**

Response: The design integrates Ponderosa to neighborhoods to the west and north by creating new connections and enhancing design along the property edges. New homes will be designed to create a front porch community with shared and private open spaces and a range of affordable housing options.

**2.36 Physical Design for People**

Response: The site and housing design has been developed through an inclusive design process that has involved most of the residents through a series of site, housing and resilience workshops. There has been special attention made to providing housing to the current residents needs, which include a desire/need for aging in place, accessibility, multi-generational living, and growing families. While ensuring flood protection for all new structures, the proposal includes one-story homes that would also be conducive to populations with special needs.

**2.41 Enhanced Design for All Projects**

Response: The community design includes common open space along the creek, including a common house, community gardens, parks, and creek connections. These will serve as functional, shared open spaces. The common open spaces should be programed for a variety of activities. In addition, Foothills Community Park is easily accessible from the site.

New buildings are appropriately scaled and are proposed with building facades and porches that relate well to the pedestrian areas. The community is designed to fit into the context of the existing Foothills Community to the west and the greater context of the developing North Boulder subcommunity. Consideration needs to be given to the interaction with the street frontage and how the pedestrians experience will be enhanced with the building design. See below.

**7.01 Local Solutions to Affordable Housing & 7.02 Affordable Housing Goals**

Response: The proposal for a 100 percent affordable residential development of 73 permanently affordable residential units supports these policies. The proposal will preserve and enhance existing residential units.

**7.06 Mixture of Housing Types, 7.07 Preserve Existing Housing Stock, & 7.09 Housing for a Full Range of Households**

Response: The proposal is for a mixture of housing types within the development. New homes are proposed as primarily single-family and duplex homes, with some carriage houses, triplexes, fourplexes and townhomes. Mobile homes would remain in the development and would gradually and voluntarily be replaced by new, similar-sized fixed foundation homes. A long-term land lease would allow residents to own their homes. All new replacement homes will be size limited. The proposal includes a mix of housing that can accommodate a variety of household configurations. New homes will contain 1-, 2-, and 3-bedroom units. Homes will be designed to accommodate extended families. The proposal includes one-story homes that would be conducive to populations with special needs.

The variety in proposed housing types gives flexibility in the ability to swap out aging mobile homes. The property was purchased by the city to preserve the community as permanently affordable. A primary goal is non-displacement of residents and existing mobile homes would remain for the foreseeable future.

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

Response: The proposal would preserve the affordability of the existing mobile homes and will allow for existing residents to either purchase fixed-foundation homes on the site or stay in their mobile home. There will be no loss of housing and a primary goal of the project is non-displacement of residents.

### **8.05 Diversity**

Response: The provision of affordable housing units and a variety of housing choices will help support socioeconomic diversity.

#### **(b) The proposed change would not have significant cross-jurisdictional impacts that may affect residents, properties or facilities outside the city.**

Response: The property is a County Enclave and will have no impact to the County facilities or population following annexation.

#### **(c) The proposed change would not materially affect the land use and growth projections that were the basis of the Comprehensive Plan.**

Response: A change to Medium Density Residential would not materially affect the land use and growth projections that were the basis of the Comprehensive Plan. The proposed land use change would retain close to the same density as the existing mobile home park community..

#### **(d) The proposed change does not materially affect the adequacy or availability of urban facilities and services to the immediate area or to the overall service area of the city of Boulder.**

Response: The proposed change would not materially affect the adequacy or availability of urban facilities and services to the immediate area or to the overall service area of the city of Boulder.

#### **(e) The proposed change would not materially affect the adopted Capital Improvements Program of the city of Boulder.**

---

Response: The proposed change would not materially affect the adopted Capital Improvements program of the City of Boulder.

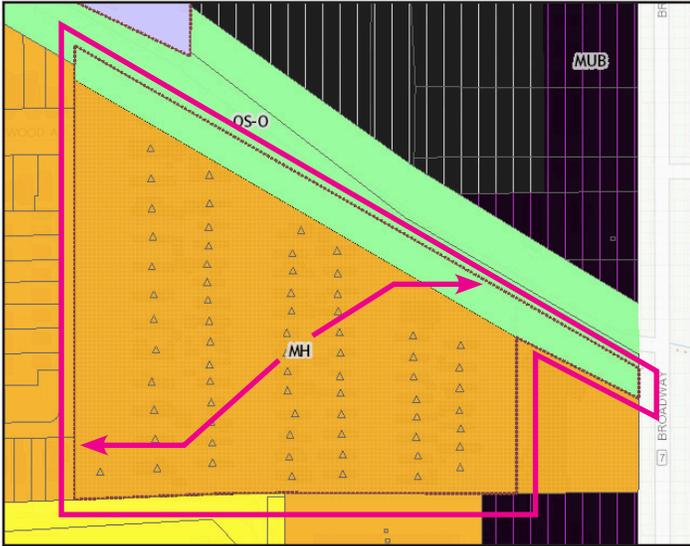
**(f) The proposed change would not affect the Area II/Area III boundaries in the Comprehensive Plan.**

Response: The property is a County Enclave and will have no effect on other Area II or III properties.

EXHIBIT

Map of Proposed Land Use and Zoning Changes

LAND USE CHANGE



**Existing**  
Manufactured Housing (MH) & Open  
Space-Other (OS-O)

**Proposed**  
Medium Density Residential (MDR),  
100% of site

PROPOSED ZONING



**Existing**  
Unzoned/Enclave

**Proposed**  
Residential Medium -2 (RM-2),  
100% of site

July 29, 2019

Sloane Walbert, AICP  
 Planning, Housing, and Sustainability  
 Planning and Development Services  
 1739 Broadway, 3<sup>rd</sup> Floor Boulder, CO 80306

## **RE: Phasing Plan for the Ponderosa Community Stabilization Annexation, Site Review, and Boulder Valley Comprehensive Plan Land Use Change Request**

The Ponderosa Community Stabilization Annexation is proposed to occur over two phases. On October 17, 2017, City Council adopted Resolution 1217 to ensure the long-term sustainability, resilience, and permanent affordability of the Ponderosa Mobile Home Park while working with residents to minimize displacement as much as possible. The Phasing plan provides for the initial replacement of infrastructure in Phase 1, while allowing the community to evolve over time to meet the needs of existing and future residents.

Pursuant to subsection 9-2-12(a), "Three Year Rule," B.R.C. 1981, the phasing plan is proposed as follows:

1. **Phase 1:** Phase 1 will commence upon the annexation of the Ponderosa Community parcel into the City of Boulder (expected in October 2019). Phase 1 includes the implementation of new infrastructure and new housing units, as described below (and shown in the Site Review Phase 1 plans):
  - 10th and Cherry connections and sidewalks;
  - New access point at Cherry and 10th;
  - Connection to existing access point at Rosewood Avenue;
  - Trees, drives, outdoor compliant lighting, and landscaping for 12 new housing units;
  - 12 new energy efficient homes to be constructed on the vacant land located on the western edge of the parcel;
  - North-South roadway improvements (paving, walks, curb/gutter/pans) including new water and sewer mains and fire hydrant;
  - Temporary paved access along North property line (using approximately existing access road);
  - New wastewater and domestic water service including new hookups to existing homes AND existing mobile homes;
  - Stormwater detention and water quality for full build out of community;
  - Storm sewer connection to city system utilizing existing off-site easement;
  - New electric service to new homes (no gas service to new homes);
  - Installation of solar on new homes;
  - New mailboxes and communication board;
  - New fire hydrants, fire access, adequate fire turnaround;
  - Small park along creek with wishing well.

- Closure of Broadway access point by Transportation in 2020 to accommodate flood and roadway improvements.

Prior to Phase 1 (early 2020), the City Transportation Department plans to close the access to Broadway and provide temporary access at Cherry/10th to accommodate Broadway improvements and future flood improvements. Phase 1 shall be substantially complete within three years of the start of construction.



2. **Phase 2:** The ultimate timing of Phase 2 will be dependent on many factors, including residents' decision making to stay in their existing mobile homes or move into the new housing planned in the community. Phase 2 is expected to begin after the conclusion of Phase 1 in 2023. However, construction of Phase 2 may begin at any time during Phase 1, but no later than 3 years after substantial completion of Phase 1. Phase 2 includes the following improvements:
  - New paved East-West roads (Ponderosa Avenue and Driveway 1), connections/walks/stripping and traffic calming;
  - As home and development sites become available with adequate fire separation between existing homes and new construction; the following will be constructed:
    - Modular, energy efficient homes with fire sprinklers;
    - Pocket parks
    - New access walks, pocket parks, landscape, driveways and sidewalks
    - Construction of the community house, parking lot and pocket park;
    - Final trees and landscaping adjacent to newly constructed homes;
    - Stormwater connections and site drainage facilities;
  - Removal of temporary access roads (as access permits);
  - Installation of new outdoor lighting fixtures and replacement of non compliant lighting

Phase 2 shall be substantially complete within 5 years of its start of construction. For definition in this project, Substantially Complete shall mean the construction of 10 additional units.

### Ultimate Phase

The ultimate phase for the project will include all the proposed improvements and any final improvements that weren't able to be installed because of conflicts with existing mobile homes. The ultimate phase will be, based on existing resident's voluntary decision to either remain in their existing home or upgrade into new housing. It is also based on the pace of new home construction by Flatirons Habitat for Humanity. Final site improvements anticipated under the ultimate phase will be built once site area is available. These final improvements will be built in sections. The hope is to proceed block by block to achieve infrastructure and improvements in an efficient manner and avoid multiple disruptions to existing and future residents. We anticipate that some households will choose to remain for many years; therefore "substantially complete" shall mean less than 10 mobile homes are remaining. We will work with staff during Tec Docs to determine how to phase this "block by block" approach as we don't have enough data on resident options and decisions at this point in time.

The ultimate phase will include all of the improvements not built in Phase 1 or Phase 2, including:

- New homes
- Remaining Street and alley trees
- Eight-foot wide planting strip and five-foot wide detached sidewalk along the north side of Cherry Avenue
- North-south multi-modal connection from multi-use path to the sidewalk on the north side of Cherry Street
- Remaining Stormwater connections
- Remaining Internal sidewalks
- Other improvements not previously built or required in Phase 1 or Phase 2



Please feel free to contact me should you have any questions.

Regards,

Crystal Launder  
 Housing Planner  
 Housing and Human Services  
 303-441-4141  
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 1300 Canyon | PO Box 791 | Boulder, CO 80306

## Requested Land Use Modifications - Ponderosa Community

The proposed zoning is Residential - Medium 2 (RM-2) and is defined in in section 9-5-2(c), B.R.C. 1981 as "[m]edium density residential areas primarily used for small-lot residential development, including without limitation, duplexes, triplexes, or townhouses, where each unit generally has direct access at ground level." Mobile homes are not an allowed use in RM-2 with an approved use review. Mobile homes will be allowed to remain once fixed foundation homes are constructed and the property no longer meets the definition of "mobile home park" in the land use code, so a variance to allow EXISTING mobile homes through the annexation agreement will be required. No new mobile homes will be allowed.

The existing 2400 square foot retail sales building ("Carniceria") located on the northeast corner of the property adjacent to Broadway is a nonstandard/nonconforming use. That use will be allowed to continue and changed in conformance with Chapter 9-10, "Nonconformance Standards," B.R.C. 1981.

### Land Use Summary

Site Area - Net (sf)	274,350		
	<b>Required</b>	<b>Permitted</b>	<b>Proposed</b>
Floor Area	N/A	No Maximum	88,942*
Lot Coverage	N/A	No Maximum	56,600
Useable Open Space	N/A	No Maximum	37,522
Landscape Area	N/A	N/A	162,388
Parking and Drives Area	N/A	No Maximum	55,362

\* Includes existing Carniceria (2,415 SF)

### Open Space Summary

Site Area - Net (sf)	274,350		
Proposed DU's	73		
Useable Open Space Required (sf)			N/A
Useable Open Space Provided (sf)			37,522
	Parking Landscape		338
	Landscaped Areas		31,591
	Balconies, Decks, Patios		5,593
Open Space per Dwelling Unit (sf)			514

### Form and Bulk Standard Conditions

	RM-2	Proposed	Notes
<b>INTENSITY STANDARDS</b>			
Minimum Lot Area (in square feet unless otherwise noted)	6,000	n/a	No lot lines
Minimum Lot Area Per Dwelling Unit (square feet)	3,500	3,758 SF	
Number of Dwelling Units Per Acre	12.4	11.58	78 are permitted on the 6.3 acre property
Minimum Open Space Per Dwelling Unit (square feet)	-	514	
Minimum Open Space on Lots (Residential Uses)	-	37,522 SF	14% of site
Minimum Open Space on Lots (Nonresidential Uses)	10-20%		N/A
Minimum Private Open Space (Residential Uses) (square feet)	0		
Maximum Floor Area Ratio	0	88,942 SF	

**ATTACHMENT D**

<b>The property is not being subdivided and will be held in a land trust. Setbacks are measured to exterior public streets. New homes will be separated from existing structures by a minimum of 10' in order to meet fire separation requirements.</b>			
	<b>RM-2</b>	<b>Provided</b>	<b>Notes</b>
<b>SETBACK AND SEPARATION REQUIREMENTS (n)</b>			
Minimum front yard landscaped setback (e), (h)	25	25' (Broadway) 15' (Cherry)	
Minimum side yard landscaped setback from a street (a)	12.5	5'	East property line and North property line
Minimum rear yard setback (f)	25	1.5'	West property line
<b>BUILDING SIZE AND COVERAGE LIMITATION (Accessory and Principal Buildings) (n)</b>			
Maximum accessory building coverage within principal building rear yard setback (9-7-8)	500 sq. ft.	4,150	Community Building
<b>Landscape Requirements</b>			
Total Lot Area	274,350		
Total Building Coverage	56,600		
Total Parking & Drives Area	55,362		
Total Open Space	162,388	59%	
<b>Parking Stalls</b>			
	<b>Required</b>	<b>Provided</b>	
Lot A		16	
Interior Parking Lot Landscaping Area in SF	240	338	
Total Interior Parking Lot Landscaping as a %	5%	7%	
Total # of Interior Parking Lot Trees	1	2	
Total Perimeter Parking Lot Landscaping SF	N/A	0	
Parking Lot Screening	N/A	0	
<b>Total Numbers of Street Trees</b>			
Rosewood Ave (919 LF)	23	17	
Ponderosa Ave (1041 LF)	26	24	
Cherry Street (767 LF)	19	17	
10th Ave (464 LF)	12	10	
Ponderosa Ct. (147 LF)	4	5	
<b>Total Numbers of Alley Trees</b>			
Alley 1 (376 LF)	9	8	
Alley 2 (340 LF)	9	7	
<b>Total Quantity of Plant Material</b>			
Trees	N/A	87	
Shrubs	N/A	TBD	

BY EMAIL TO: Will Birchfield, Chief Building Official  
Kirk Moors, Senior Plans Examiner/ Assistant Building Official  
Jonathan Bergelin, Code Compliance Supervisor  
Tonia Pringle, Administrative Supervisor I (Rental Licensing)

FROM: Kurt Firnhaber, Director of Housing and Human Services  
Crystal Launder, Housing Planner (Ponderosa Community Stabilization Project Manager)  
Leslie Pinkham, Asset Manager (Ponderosa Property Management)

**SUBJECT: Life and Fire Safety at Ponderosa (4475 Broadway)**

DATE: June 14, 2019

ATTACHMENT: Home-to-home separations

#### SUMMARY

The [Ponderosa Community Stabilization](#) project team proposes an approach to compliance with city codes relevant to life and fire safety that, in accordance with Resolution No. 1217, “The Ponderosa Resolution”, advances life and fire safety at Ponderosa, while seeking to ensure minimal resident displacement.

#### BACKGROUND

Over the years, numerous efforts have been made by the city, university, and nonprofits to document the community and conditions in Ponderosa Mobile Home Park (4475 Broadway) to secure a stable, safe and healthy future for residents.

#### **Opportunities to Advance Health and Safety in Ponderosa**

Major categories of opportunity to advance health and safety in Ponderosa include:

- *Fire safety:* Adequate fire hydrants, fire access and a turnaround for fire trucks; regular fire safety promotion by property management; targeted life safety improvements; introduction of home replacement options; and adequate fire separation of new homes all present opportunities to advance fire safety in Ponderosa.
- *Structure safety:* In addition to the items listed under fire safety, the structural safety or adherence to building code, will be advanced as new home options replace older homes. In the interim, a finite list of critical home repairs, including accessibility improvements can be pursued.
- *Flood safety:* Ponderosa is adjacent to the south of West Fourmile Canyon Creek (WFCC) and located in the 100- and 500-year floodplain. The actual experience of flooding in Ponderosa during the 2013 flood indicates that floodwaters remained shallow in the community. Existing homes are nearly entirely elevated out of the 100-year floodplain, with the exception of one home that has a Finished Floor Elevation 3/8” lower than the Flood Protection Elevation. Proper elevation and floodplain construction are the primary opportunities to advance flood safety in Ponderosa. New green spaces, paved streets and the addition of stormwater quality and detention can all increase flood resilience within the community.

### City Role in Ponderosa

In 2014, the city received a Community Development Block Grant (CDBG) – Disaster Resilience Grant that was deployed in a three-parcel area referred to as West Fourmile Canyon Creek and included Ponderosa, Rosewood to the east, and the undeveloped portion of Foothills Community immediately adjacent to the east of Rosewood.

The primary areas of effort for the WFCC Study included:

- a. Community engagement with residents
- b. A preliminary cost estimate for infrastructure construction

This [WFCC study](#) accepted by City Council produced the following list of Goals and Drivers for Ponderosa. This list was informed by the Ponderosa community, the private owner of Ponderosa, city staff and City Council:

1. Minimize disruption to Ponderosa’s owners and residents
2. Minimize displacement of residents
3. Improve the community’s resilience
4. Improve health and safety
5. Retain affordability
6. Create certainty for the future
7. Achieve annexation goals
8. Encourage long-term investment in property
9. Improve utilities (stability, reliability and service)
10. Leverage Disaster Recovery Funding
11. Minimize costs and maximize dollars invested

In March 2016, City Council requested staff to continue to seek a solution for Ponderosa. City staff explored three scenarios (delay action, multifamily apartments and small homes) and determined that the small homes scenario, which includes the following elements, best advanced Ponderosa’s Goals and Drivers.

- Annexation
- Infrastructure replacement
- Introduction of new community amenities
- Energy-efficient, affordable home replacement options
- Stabilized land ownership
- Anti-displacement

### Major Project Milestones to Date

- *August 1, 2017, city purchase of Ponderosa: Using \$4.2 Million of CDBG - Disaster Recovery infrastructure funds (endorsed by the Boulder County Collaborative)*
- *October 17, 2017, Council adopts Resolution No. 1217, “The Ponderosa Resolution”:* Committing the city to “a path forward in coordination with the residents of the Ponderosa Mobile Home Park to protect the health and life safety of the community, enable permanent affordability, promote sustainability and resilience, and ensure minimal resident displacement.”
- *August 23, 2018, City Council approved the Ponderosa Concept Plan*
- *February 19, 2019, initial Site Plan, Annexation and Land Use Change Submittal: Staff Review.*

**Minimizing Displacement of Vulnerable Residents**

While nearly all households in Ponderosa were homeowners at the time of city purchase of Ponderosa, more than two thirds fall into HUD’s (the federal Department of Housing and Urban Development) extremely low income category or have incomes at or below 30% of the Area Median Income (AMI) and 98% of Ponderosa households earn incomes at or below 80% AMI. For many Ponderosa households, Ponderosa is a lifestyle choice and for some Ponderosa provides housing of last resort. Homes in Ponderosa range from exceptionally nicely renovated homes and homes manufactured to HUD standards to homes in very poor condition.

The following are ways that the project team seeks to avoid displacement of residents:

- Extensive bilingual community engagement to advance project understanding (Resident Leadership Committee, workshops, newsletters, a resident-focused website, texting, emails, bulletin boards);
- Reduce relocation, which increases the likelihood of displacement, by enabling households to remain in existing homes;
- Assume homeowners may remain in their homes and exercise choice (live out their lives in existing mobile homes, move into a new replacement home, move out of Ponderosa);
- Enable the few known renter households to remaining in existing homes until new, high-quality housing options become available on site;
- Maintain a small stock of manufactured homes on site to enable temporary relocation during infrastructure construction and as older homes are replaced by new homes.
- Phase infrastructure replacement and new home construction to minimize impacts to existing households.

**Proposed Schedule: Health and Safety Implementation**

The project will be implemented over time. This represents a high-level overview of recent efforts to advance health and safety in Ponderosa and the Project teams’ proposal for an implementation schedule to advance health and safety in Ponderosa while minimizing resident displacement.

Timing	Health and Safety Advancement
Prior to city purchase (prior to Aug. 1, 2017):	Park management... <ol style="list-style-type: none"> <li>1. Confirmed block and tie downs on all mobile and manufactured homes;</li> <li>2. Confirmed 2 clear points of egress in each home;</li> <li>3. Confirmed smoke detectors in all homes; and</li> <li>4. Confirmed fire extinguishers in al homes.</li> </ol>
City purchase (Aug. 1, 2017) to today:	<ol style="list-style-type: none"> <li>1. Strategic investment in existing electrical, water and sewer infrastructure;</li> <li>2. Smoke detector and carbon monoxide blitz by Boulder Fire Department.</li> </ol>
Annexation (expected in October 2019):	<ol style="list-style-type: none"> <li>1. 10-12-3 (a) Any mobile home in existence in the city on July 5, 1973 or annexed to the city</li> </ol>

	<p>after such date that complied with all applicable legal requirements then in effect is considered to be legally nonconforming and is not subject to the provisions of Chapter except the requirements relating to blocking and tying down of mobile homes.</p> <ol style="list-style-type: none"> <li>2. Fire response transitions from Boulder Rural Fire Protection District to Boulder Fire Department</li> </ol>
<p>Phase I Infrastructure and Housing:</p>	<ol style="list-style-type: none"> <li>1. Installation of new wastewater and domestic water service including new hookups to existing homes AND existing mobile homes;</li> <li>2. New electric to new homes;</li> <li>3. Installation of stormwater detention and storm water quality infrastructure;</li> <li>4. New fire hydrants, fire access, adequate fire turnaround;</li> <li>5. 12 new modular, energy-efficient homes</li> </ol>
<p>End of Phase I:</p>	<p>Rental Licensing applies (at last C.O. of the 12 Phase I homes).</p>
<p>After Phase I:</p>	<ol style="list-style-type: none"> <li>1. <i>New Homes:</i> As home sites become available with adequate fire separation between existing homes and new construction, modular, energy efficient homes will be installed with fire sprinklers.</li> <li>2. <i>Existing Homes:</i> <ol style="list-style-type: none"> <li>a. Property management will send annual reminders to replace batteries in smoke and CO detectors, identify opportunities to reduce the electrical load on older home electric systems.</li> <li>b. Pre-HUD homes vacated and sold to the city will be removed. Some HUD homes will be maintained on site to facilitate relocation as needed.</li> <li>c. Housing and Human Services will identify a list of critical home repairs to advance health and safety in these homes and accessibility and create a fund for such improvements.</li> <li>d. Property management will solicit outside partners such as the CU FLOWS program to perform water conservation and other sustainability upgrades in these homes.</li> <li>e. Project staff will work with the Building Department to identify a list of home repair and component</li> </ol> </li> </ol>

	replacement activities that do and do not require permits to guide residents on future home maintenance.
--	--

## FIRE SAFETY

The Boulder Rural Fire Protection District provided a summary report of emergency calls at Ponderosa Mobile Home Park for the five-year period between June 22, 2012 and June 22, 2017. Three incidents could be described as fire related, including two home fires (May 2014 and January 2017) and an incidence of arcing and/or shorting electrical equipment (October 2013). Prior to and since city purchase of Ponderosa, multiple efforts have been made to maximize fire safety in the community. Annexation and installation of Phase I infrastructure will greatly advance fire safety in the community and property management will continue to promote fire safety in existing mobile homes.

### Summary of Fire Safety Measures

What follows is a listing of fire safety measures both current/existing and those planned/to-be-implemented.

#### Fire Hydrants

- *Existing/To Date:* Two (2)
- *To be Implemented in Phase I:* Adequate fire hydrants to meet city standards

#### Fire Access

- *Existing/To Date:* Broadway (east) and Cherry Avenue (south)
- *To be Implemented in Phase I:*
  - Broadway emergency access (gated access east)
  - 10th and Cherry (south)
  - Cherry (maintain existing south entrance)
  - Rosewood extension (northwest)
  - Adequate turning radius for a fire truck and paved streets

#### Home Egress

- *Existing/To Date:* Prior to city purchase and after a home fire in early 2017, property manager worked with residents to identify two clear points of egress in all homes.
- *Future/Ongoing:* Annual reminders by property management to maintain two clear points of egress.

#### Fire Extinguishers

*Existing/To Date:* Prior to city purchase and after a home fire in early 2017, property manager required installation of fire extinguishers in all homes.

#### Smoke and Carbon Monoxide Detectors

- *Existing/To Date:* Prior to city purchase and after a home fire in early 2017, property manager required installation of fire detectors in all homes. On February 24, 2018, Boulder Fire and Rescue performed a fire safety blitz in Ponderosa, providing free installation of smoke and carbon monoxide detectors to any household. The property manager believes all to nearly all homes have functioning smoke detectors and some have carbon monoxide detectors.
- *Future/Ongoing:* Annual reminders to change batteries by property management. Encourage increase in carbon monoxide detectors installed.

### Electrical Connections

- *Existing/To Date:* Electrical services are run to individual homes through overhead lines. After the city's purchase, as property owner, the city invested strategically in addressing potential safety issues where electrical service connects to homes. Prior to city purchase, property management also worked with Excel energy to address electrical reliability and connections.
- *To be Implemented in Phase I:* Existing electrical infrastructure will be replaced by a new undergrounded system that will serve new homes. Existing homes will remain on the existing system.

### Fire Sprinklers

*New Homes:* All new homes will be constructed with sprinklers.

### Fire Separations

- *Existing homes (current conditions):* In October 2018, using aerial images of the site, an HHS staff member measured separation home-to-home separations in Ponderosa, including side-to-side and back-to-back separations, identifying seven instances where homes were less than six feet apart (less than the earliest building code separation minimum) and eight instances where homes separations measured between six and 10 feet apart (greater than the 1925 minimum, but less than the current separation minimum). All other distances exceeded 10-foot minimum. See ATTACHMENT A.
- *New Homes (future conditions):* New homes will only be constructed once adequate fire separations can be achieved.
- *Existing Homes (future conditions):* As homeowners choose to move into new housing or to move out of the community homes will be removed, homes purchased by outside parties will need to be removed (the city is executing no new lot leases on existing homes), pre-HUD homes purchased by the city, will be removed. Post-1976 homes in good condition will be temporarily retained to facilitate on-site relocation. As homes are removed fire separations will increase.

### Yard Clutter, Storage of Flammables, Access

*Existing homes (current and ongoing):* On August 1, 2018, new rules and regulations went into effect in Ponderosa that “ensure a safe environment while honoring the culture, flexibility and individual expression that has contributed to the community”. A number of rules directly address storage of flammables, excess yard clutter, and impeding access.

### FLOOD SAFETY

Ponderosa is bounded to the north by West Fourmile Canyon Creek (WFCC) and the multiuse path along it. The property is located within the 100- and partially within the 500-year floodplains. In the 2013 flood, as the property located north of Ponderosa and WFCC was inundated by floodwaters, Ponderosa only experienced shallow sheet flow flooding on the site. Ponderosa’s roads conveyed the majority of the flow. Rain infiltration into roofs and walls in older homes was the driving factor in nearly all of the 24 FEMA claims by Ponderosa residents.

### Summary of Flood Safety Measures

The following summarizes flood safety in Ponderosa.

### Home Elevations

- *Existing conditions:* With the exception of one mobile home, all existing homes in Ponderosa are adequately elevated. The home that is not adequately elevated was measured to be 3/8" below the floodplain.
- *Future conditions:* New residential units will be designed with raised finished floor elevations at the minimum flood protection elevation per the City's floodplain regulations. Any improvements located in the floodplain will be designed per City Floodplain Development Standards, and a Floodplain Development Permit will be required prior to final approval. Floodplain development permits will be obtained during the design process and prior to construction.

## BUILDING SAFETY

In Boulder, mobile home park standards are governed by Chapter 10-12. Mobile Homes (B.R.C, 1981). 10-12-3. (c) Application of Chapter to Existing Mobile Homes and Mobile Home Parks states "Any mobile home in existence in the city on July 5, 1973 or annexed to the city after such date that complied with all applicable legal requirements then in effect is considered to be legally nonconforming and is not subject to the provisions of this chapter except the requirements relating to blocking and tying down of mobile homes."

The Project allows homeowners as of August 1, 2017 to remain in their mobile or manufactured home in perpetuity unless there is a direct conflict with infrastructure construction. The city or any future partner will not issue new leases on these homes. As a result, all original households will:

- Move into a new, high-quality, deeply affordable Habitat home
- Grow old and pass away living in their mobile homes (those set to inherit will gain the value of the home but will not be issued new leases); or
- Sell home and move away. Home owners may sell either to another party outside of the community who would move it elsewhere or to the city at a price based on a third-party valuation performed in 2018, with an annual adjustment of approximately one to three %.

### Summary of Building Safety Status and Measures

The following is a summary of existing conditions and planned future conditions related to building safety.

#### Mobile, Manufactured Homes and other Residential and Lived-in Structures

- *Existing Conditions:*
  - There are 68 home sites in Ponderosa on which 65 homes are sited. Of these, 52 (79%) were built prior to the establishment of HUD standards in 1976 and 14 (21%) were built to HUD standards.
  - Lease arrangements for a converted school bus and camp trailer were terminated.
  - Currently, 10 homes are vacant due to sale or death of owners. Three are post-76 homes that will likely be retained temporarily for on-site relocation, one home has been removed and six homes are slated for removal.
  - There is an occupied rental unit located above the manager's office.
- *Future Conditions:*
  - As the city buys pre-1976 homes, they are being removed.
  - Some newer homes in good condition are being temporarily kept onsite as potential relocation housing.

- Seven households have expressed intent to move away in the near future or are not entitled to a future in the community because they arrived in the community after August 1, 2017.
- Based on what we understand of residents' intent, we anticipate that most mobile homes will be replaced in the first 7 to 10 years with a handful of existing mobile homes persist beyond that time.

#### Rental Licensing

- *Existing Conditions:* Property management is aware of 2 homes in Ponderosa subject to traditional third-party rental agreements. There is a rental unit located above the office. Several households don't own the home in which they live and it is unclear whether they rent the home from an unrelated or related party and therefore whether they are subject to Rental Licensing. Property management is working to clarify these situations.
- *Rental Licensing Implementation:* The project team does not believe that any home in Ponderosa that is currently rented can be brought up to rental licensing standards; therefore, in order to avoid displacement, we would like to seek, as a condition of annexation, a delay in applying rental standards in Ponderosa until the last Certificate of Occupancy is issued for the 12 units of Phase I housing on the west side of Ponderosa. Homes retained by the city as relocation housing would be licensed as rentals. Households in rental situations on Aug. 1, 2017 (city purchase of Ponderosa) will be prioritized for Phase I housing. Phase I housing construction is projected to begin in fall 2020.

#### Block and Tie Downs

- *Existing conditions:* Property management has confirmed block and tie downs on existing mobile and manufactured homes.
- *Future conditions:* Upon annexation, existing homes must conform to the city's block and tie down requirements.

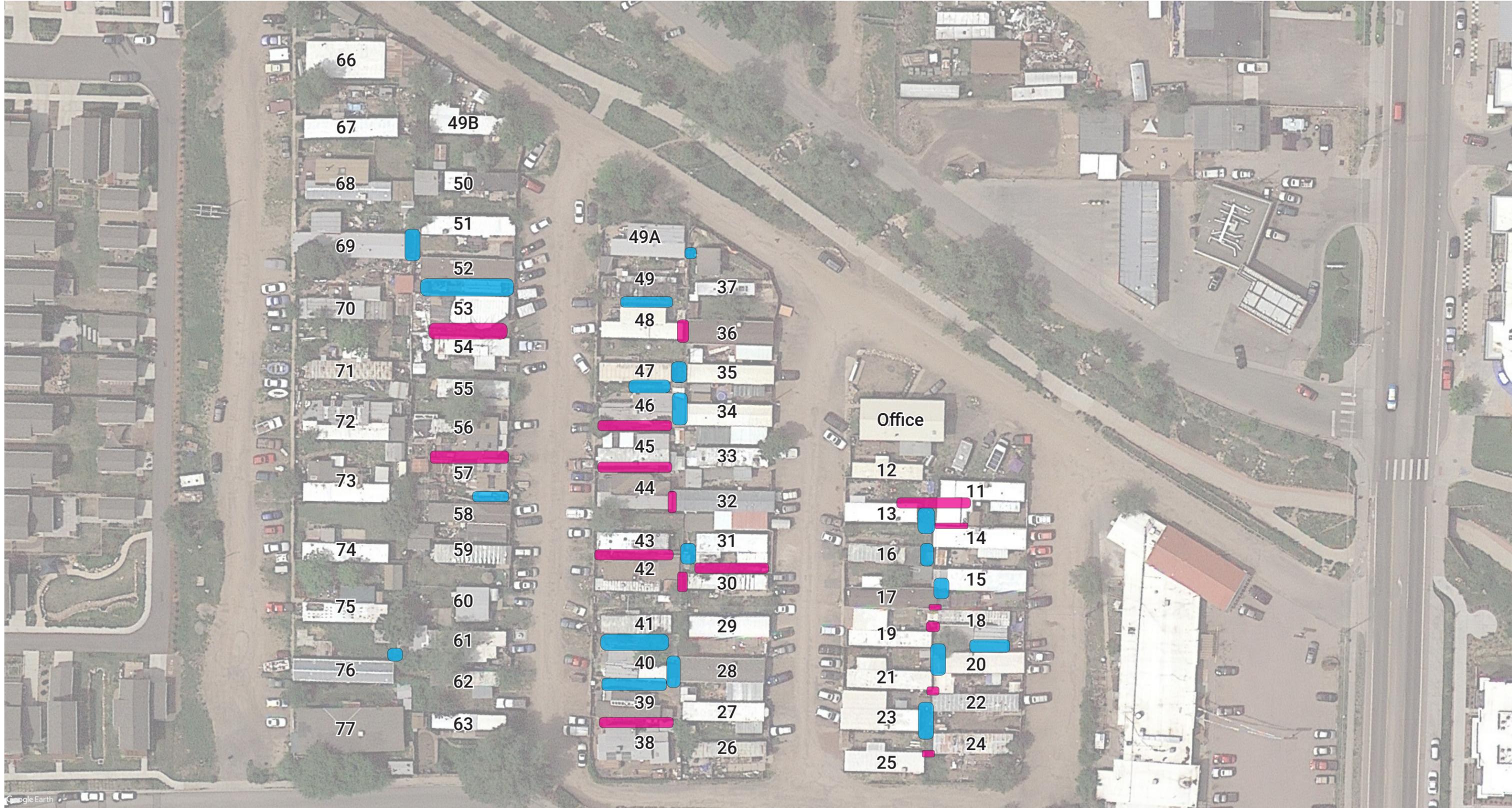
#### Unpermitted Construction

- *Existing conditions:* Much unpermitted construction, including construction of additions and accessory structures, has occurred in Ponderosa. Due to the 4th Amendment protections against unreasonable search and seizure, the project team has made no attempt to catalog unpermitted construction. Staff identified 24 permits for additions and remodels issued between 1953 and 2017, but unit numbers were not identified in all cases.
- *Existing homes:*
  - The project team would like to work with Permitting to identify a list of activities that do and do not require permits (e.g., roof replacement vs. roof repair), to help residents understand when they should pull a permit and the potential ramifications of pulling a permit if they have unpermitted construction.
  - Recognizing that much construction performed in Ponderosa likely does not meet the test of 10-12-3 (compliance with applicable legal requirements), the project team generally would like to avoid proactive identification of unpermitted work to avoid displacement, given that the community is on a defined path to improve health and safety.
  - The project team plans to identify a finite list of critical home repairs and accessibility improvements to fund and to work with existing community programs and partners such as the CU-Boulder F.L.O.W.S. program and other home repair programs to advance

water conservation, health and safety. For example, an energy-efficient light bulb blitz could reduce the electrical load on older electrical systems, both advancing energy conservation and reducing the risk of fire.

# Ponderosa Mobile Home Park | Estimated Distances Between Homes

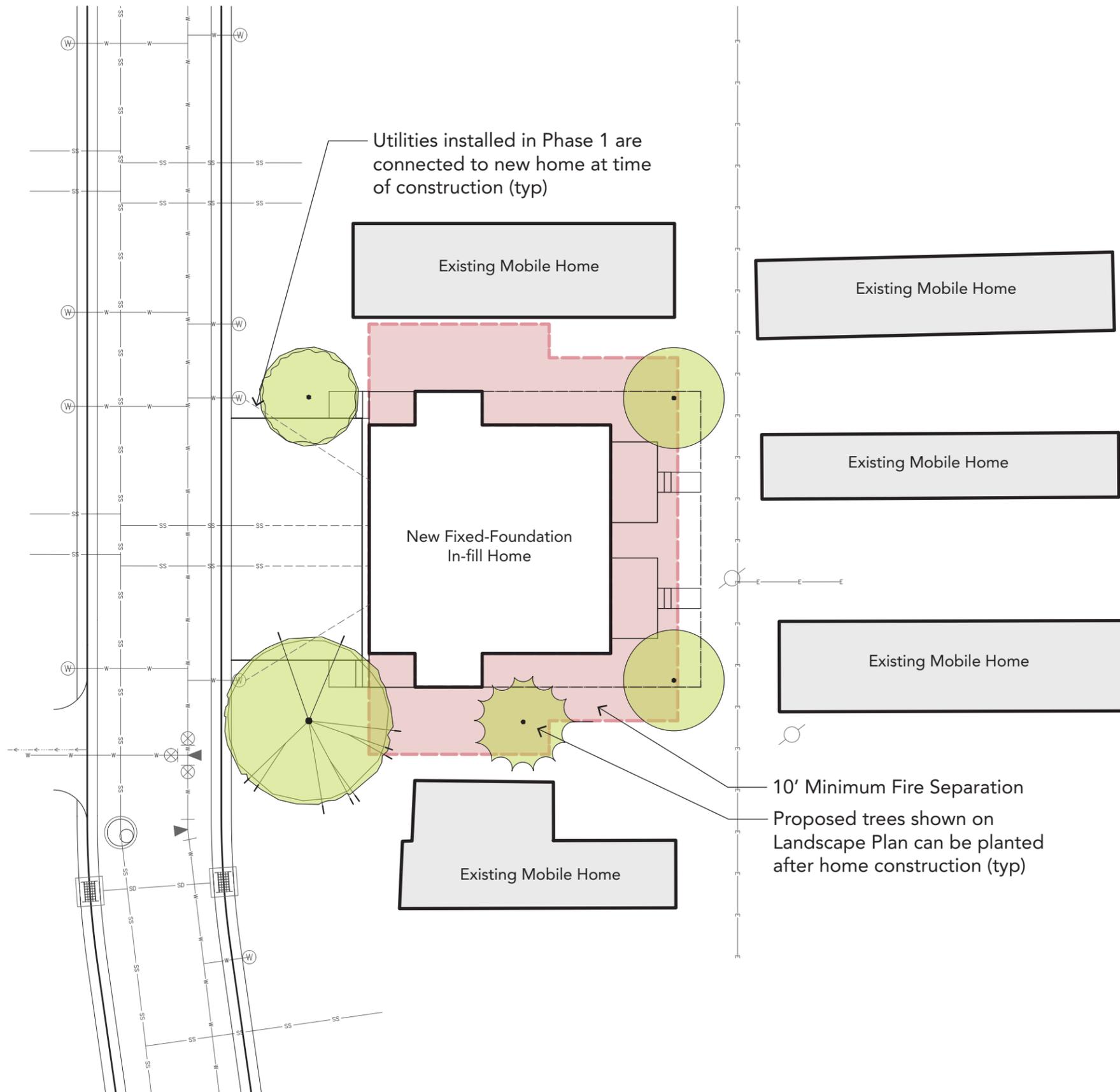
June 12, 2019

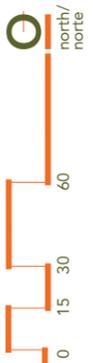


Home-to-home separations were measured based on aerial images and not on the ground.

- 0 to 6 feet: < earliest known (1925) residential fire separation minimum
- 6 to 10 feet: > 1925, but < current residential fire separation minimum

# Fire Separation Diagram



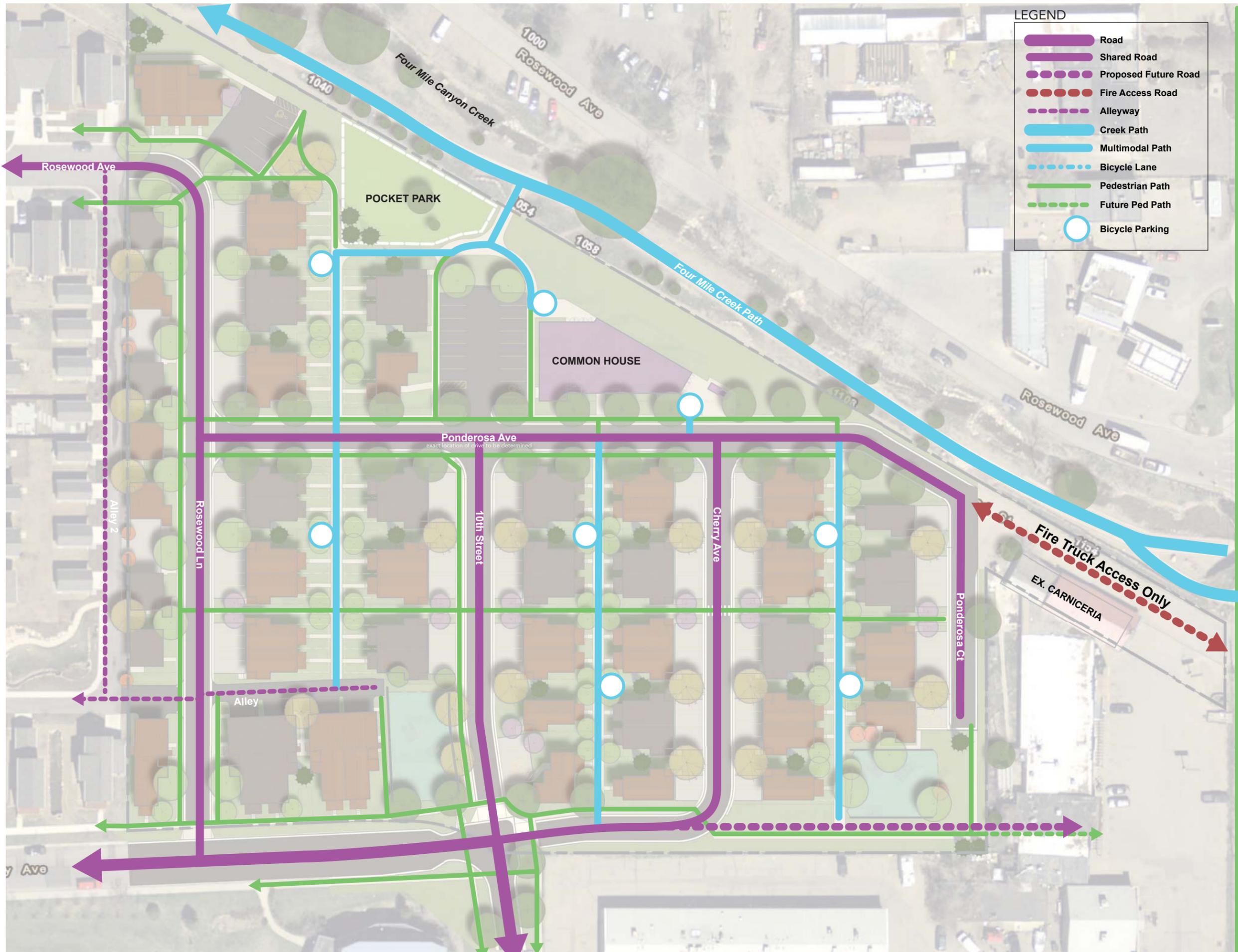


Ponderosa Mobile Home Park  
Site Plan

City of Boulder  
4474 North Broadway, Boulder, Colorado



JB FIELDWORKS  
A TRESTLE GROUP



**LEGEND**

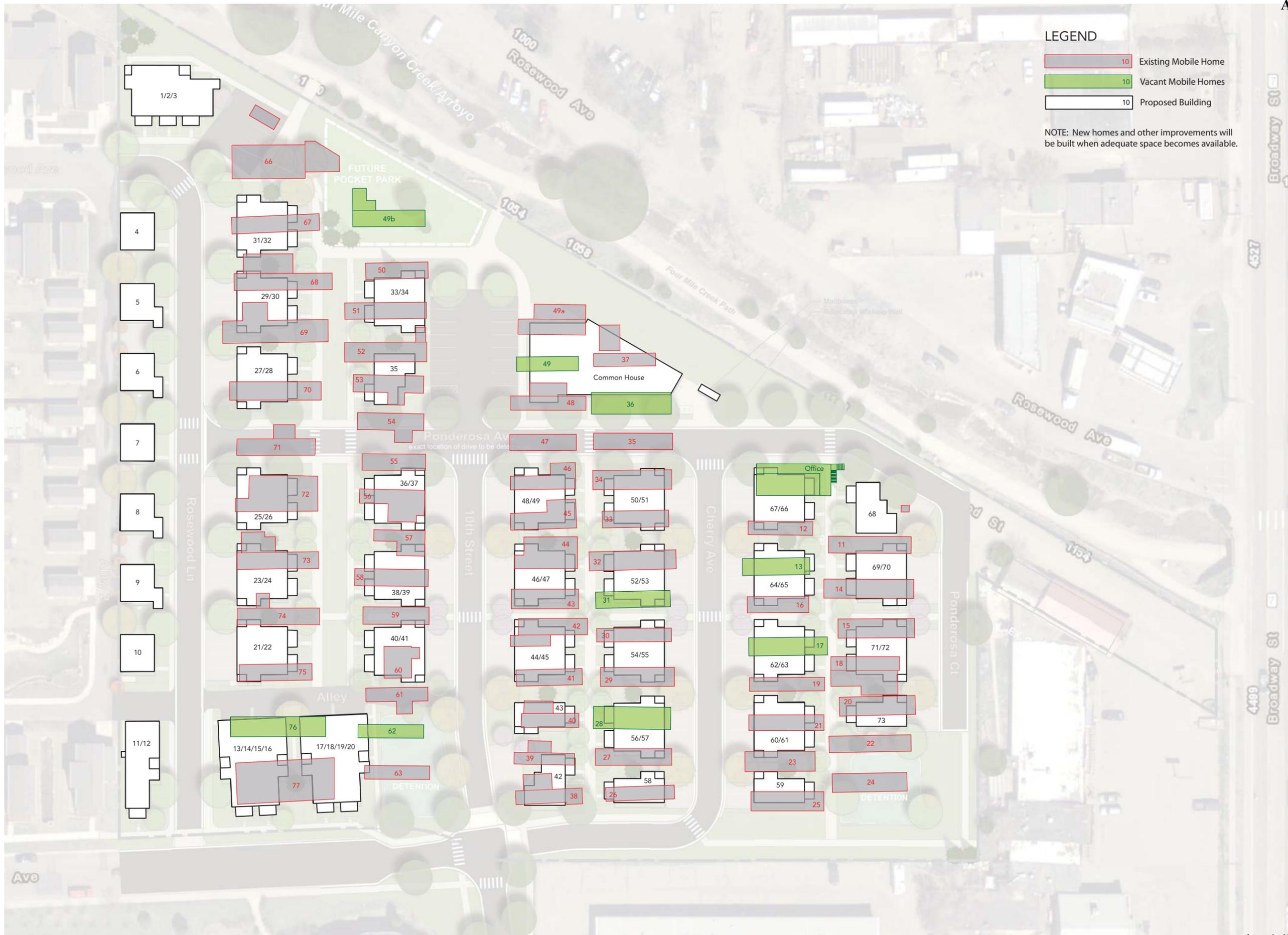
- Road
- Shared Road
- Proposed Future Road
- Fire Access Road
- Alleyway
- Creek Path
- Multimodal Path
- Bicycle Lane
- Pedestrian Path
- Future Ped Path
- Bicycle Parking

**Ponderosa Mobile Home Home Park  
Circulation Diagram**

City of Boulder  
4474 North Broadway, Boulder, Colorado



**JB FIELDWORKS**  
CONSULTING ENGINEERS

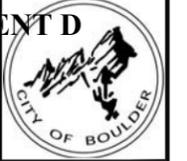


**Ponderosa Mobile Home Park**  
**Existing Mobile Home Locations and Future Homes Exhibit**

City of Boulder  
 4474 North Broadway, Boulder, Colorado



**JB FIELDWORKS**



**JB FIELDWORKS**  
 2601 Spruce Street, Unit A  
 Boulder, CO 80304  
 724.626.5467  
 www.jbfieldworks.com

**ATTACHMENT D**

**Site Data**

Zoning Category: RM-2 (Medium Density Residential)  
 Lot Size (Gross): 274,350 SF (6.3 Acres)

Dwelling Units Permitted: 78 (12.4/Acre)  
 Requested Dwelling Units: 73

Required Front Yard Setback (Broadway): 25'  
 Requested Front Yard Setback (Broadway): 25'

Required Front Yard Setback (Cherry Ave.): 25'  
 Requested Front Yard Setback (Cherry Ave.): 15'

Required Side Yard Setback (East Prop. Line): 5'  
 Requested Side Yard Setback (East Prop. Line): 5'

Required Side Yard Setback (North Prop. Line): 5'  
 Requested Side Yard Setback (North Prop. Line): 5'

Required Rear Yard Setback (West Prop. Line): 25'  
 Requested Rear Yard Setback (West Prop. Line): 1.5'

**Land Use Summary**

Site Area - Net (sf)	Required	Permitted	Proposed
Floor Area*	N/A	No Maximum	88,942
Lot Coverage	N/A	No Maximum	56,600
Useable Open Space	N/A	No Maximum	37,522
Landscape Area	N/A	N/A	162,388
Parking and Drives Area	N/A	No Maximum	55,362

\* Includes Existing Carnicena (2415 SF)

**Open Space Summary**

Site Area - Net (sf)	Proposed DU's	Useable Open Space Required (sf)	Useable Open Space Provided (sf)
274,350	73	N/A	37,522
			14%
		Parking Landscape	338
		Landscape Areas	31,591
		Balconies, Decks, Patios	5,593
		Open Space per Dwelling Unit (sf)	514

**Parking Summary Chart**

Automobile Parking			
Use	DU's	PER CODE (BRC 9-9-6) Spaces per DU	Req'd
Residential			
3-Bedroom	57	2	114
2-Bedroom	7	1.5	11
1-Bedroom	9	1	9
<b>Total</b>	<b>73</b>		<b>134</b>

**Provided**

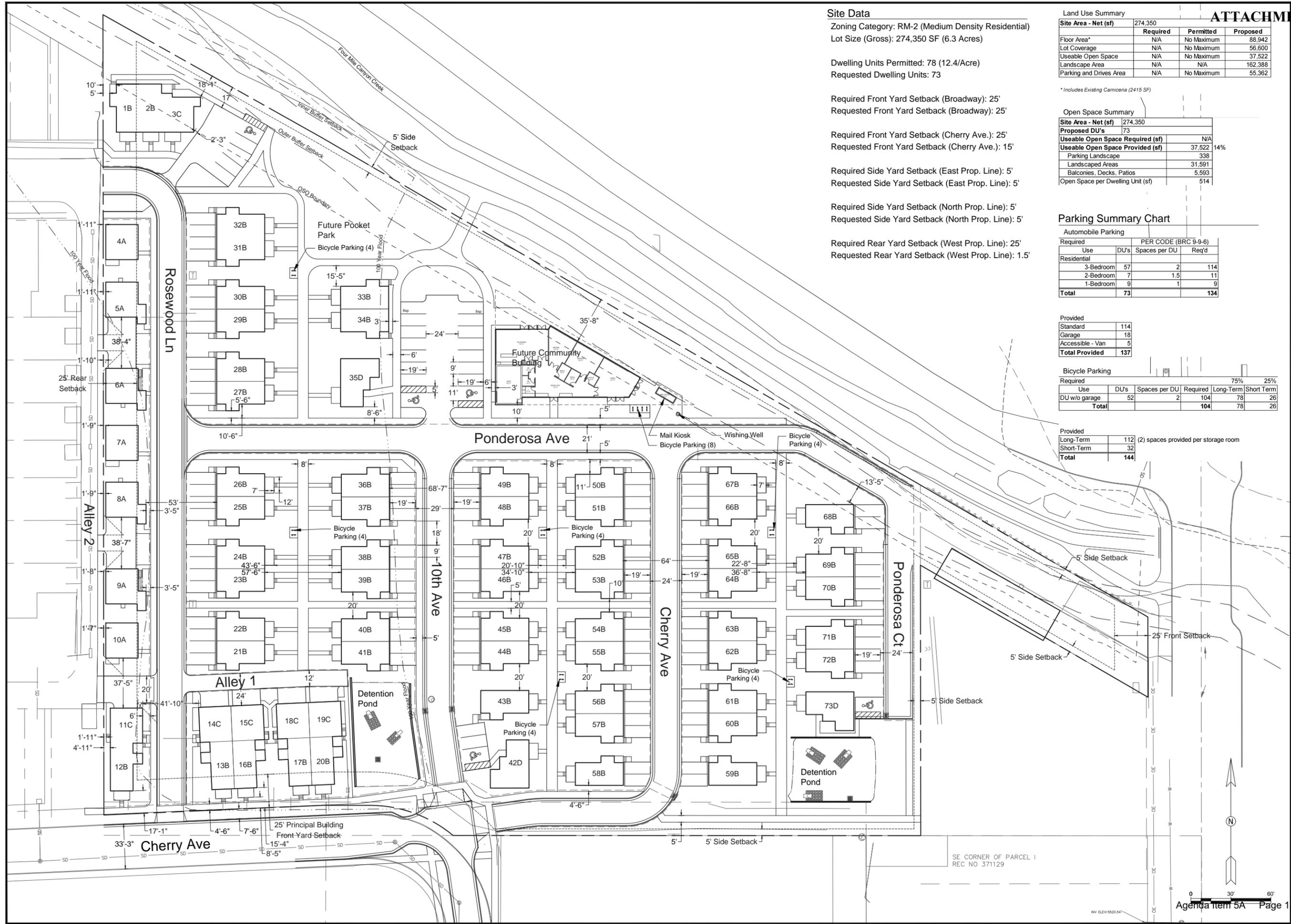
Standard	114
Garage	18
Accessible - Van	5
<b>Total Provided</b>	<b>137</b>

**Bicycle Parking**

Use	DU's	Spaces per DU	Required	75% Long-Term	25% Short Term
DU w/o garage	52	2	104	78	26
<b>Total</b>			<b>104</b>	<b>78</b>	<b>26</b>

**Provided**

Long-Term	112	(2) spaces provided per storage room
Short-Term	32	
<b>Total</b>	<b>144</b>	

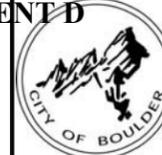


NO.	DATE	DESIGN	DESCRIPTION
3	07/29/19	JWB	SDP 3rd Re-Submittal
		JWB	DESIGN
		DWN	DRAWING

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 DRAWN BY: JWB  
 CHECKED BY: JWB  
 JOB #: 2408.3c  
 DATE: 07/29/2019  
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**PONDEROSA COMMUNITY STABILIZATION PROGRAM (LUR2019-00015) BOULDER, COLORADO**  
**SITE DEVELOPMENT PLAN**

SHEET NO.



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NO. DATE DESD DWN  
 3 07/29/19 JWB JWB

DESIGNED BY: JWB  
 DRAWN BY: JWB  
 CHECKED BY: JWB  
 JOB #: 2408.3c  
 DATE: 07/29/2019  
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PONDEROSA COMMUNITY STABILIZATION  
 PROGRAM (LUR2019-00015)  
 BOULDER, COLORADO  
 PRELIMINARY LANDSCAPE PLAN

SHEET NO.

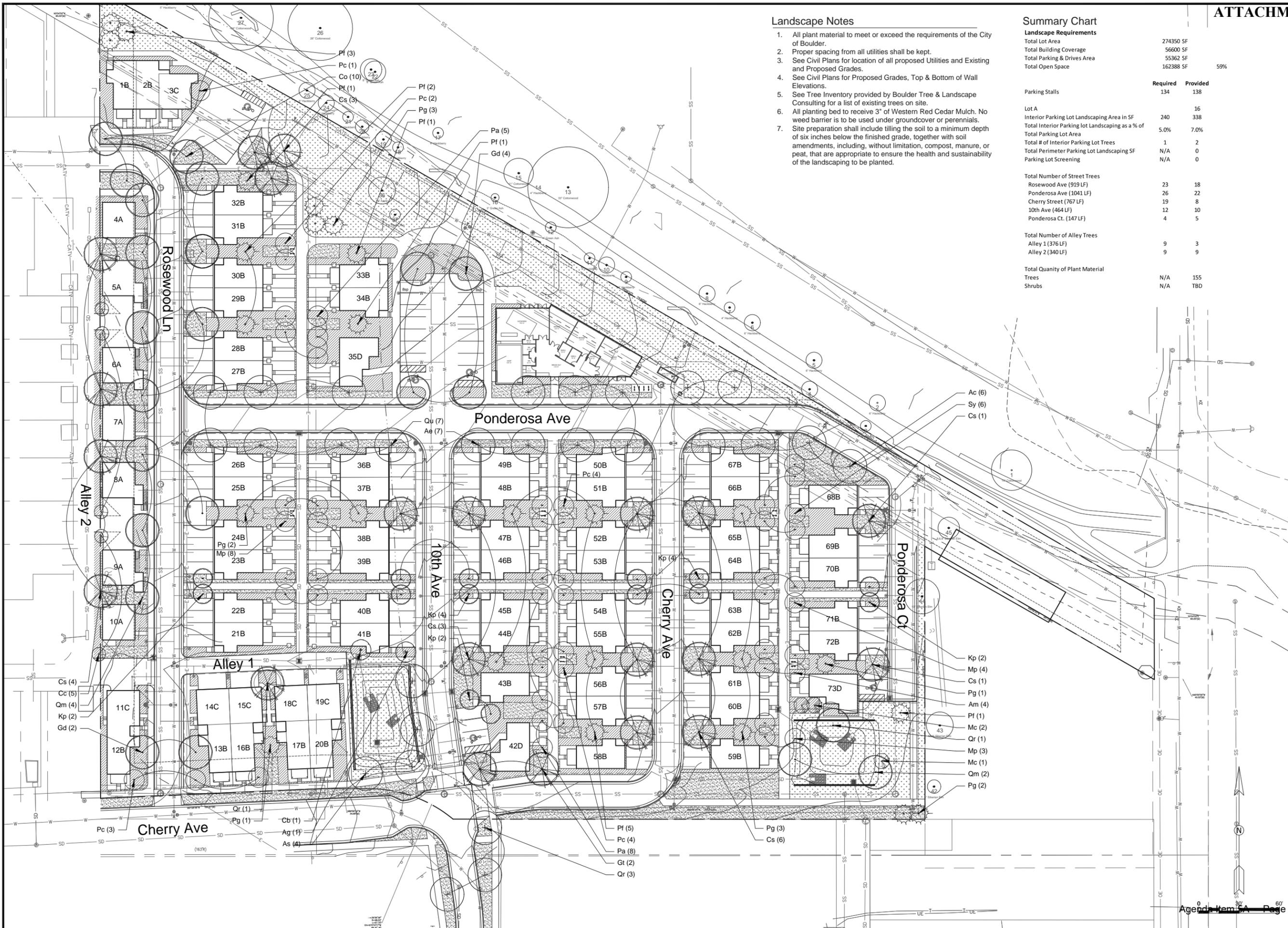
L-1

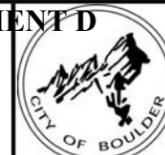
**Landscape Notes**

- All plant material to meet or exceed the requirements of the City of Boulder.
- Proper spacing from all utilities shall be kept.
- See Civil Plans for location of all proposed Utilities and Existing and Proposed Grades.
- See Civil Plans for Proposed Grades, Top & Bottom of Wall Elevations.
- See Tree Inventory provided by Boulder Tree & Landscape Consulting for a list of existing trees on site.
- All planting bed to receive 3" of Western Red Cedar Mulch. No weed barrier is to be used under groundcover or perennials.
- Site preparation shall include tilling the soil to a minimum depth of six inches below the finished grade, together with soil amendments, including, without limitation, compost, manure, or peat, that are appropriate to ensure the health and sustainability of the landscaping to be planted.

**Summary Chart**

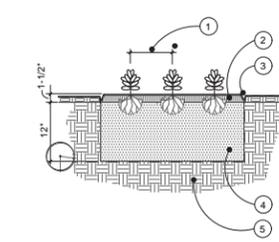
Landscape Requirements		Required	Provided
Total Lot Area		274350 SF	
Total Building Coverage		56600 SF	
Total Parking & Drives Area		55362 SF	
Total Open Space		162388 SF	59%
Parking Stalls		134	138
Lot A			16
Interior Parking Lot Landscaping Area in SF		240	338
Total Interior Parking Lot Landscaping as a % of Total Parking Lot Area		5.0%	7.0%
Total # of Interior Parking Lot Trees		1	2
Total Perimeter Parking Lot Landscaping SF		N/A	0
Parking Lot Screening		N/A	0
<b>Total Number of Street Trees</b>			
Rosewood Ave (919 LF)		23	18
Ponderosa Ave (1041 LF)		26	22
Cherry Street (767 LF)		19	8
10th Ave (464 LF)		12	10
Ponderosa Ct. (147 LF)		4	5
<b>Total Number of Alley Trees</b>			
Alley 1 (376 LF)		9	3
Alley 2 (340 LF)		9	9
<b>Total Quantity of Plant Material</b>			
Trees		N/A	155
Shrubs		N/A	TBD





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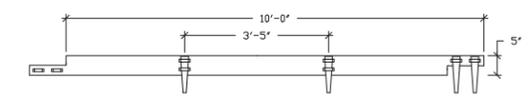
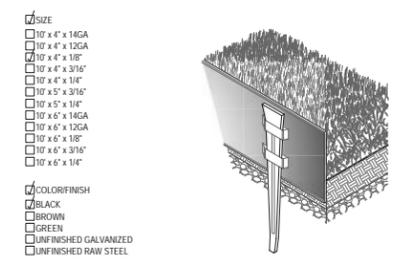
Symbol	Quantity	Common Name	Botanical Name	Size	Typical Spacing (ft)	Water Usage
<b>Preliminary Plant List</b>						
<i>Large Maturing Trees</i>						
Ac	6	Bigtooth Maple	Acer grandidentatum	2"	40	Low
Ae	7	Briotti Horsechestnut	Aesculus carnea	2"	40	Medium
As	4	Sugar Maple	Acer saccharum 'Fall Fiesta'	2"	40	Medium
Co	10	Turkish Filbert	Corylus colurna	2"	40	Low
Cs	18	Catalpa	Catalpa speciosa	2"	40	Low
Gd	6	Kentucky Coffee Tree	Gymnocladus dioicus 'Espresso'	2"	40	Low
Gt	2	Skyline Honeylocust	Gladitsia triacanthos inermis 'Skyline'	2"	40	Low
Qm	6	Burr Oak	Quercus macrocarpa	2"	40	Low
Qr	5	English Oak	Quercus robur	2"	40	Low
Qu	7	Swamp White Oak	Quercus bicolor	2"	40	Low
<i>Medium Maturing Trees</i>						
Ag	1	Autumn Slender Buckeye	Aesculus 'Autumn Slender'	2"	25	Medium
Cb	1	Pyramidal European Hornbeam	Carpinus betulus fastigata	2"	25	Medium
Pa	13	Aristocrat Pear	Pyrus calleryana 'Aristocrat'	2"	25	Medium
<i>Small Maturing Trees</i>						
Am	4	Autumn Brilliance Serviceberry	Amelanchier grandiflora	2"	20	Low
Cc	5	Redbud	Cercis Canadensis	2"	20	Medium
Kp	10	Goldenrain Tree	Koeleruteria paniculata	2"	20	Low
Mc	3	Centurian Crabapple	Malus 'Centurian'	2"	20	Medium
Mp	15	Prairifire Crabapple	Malus 'Prairifire'	2"	20	Medium
Pc	10	Chanticleer Pear	Pyrus calleryana 'Chanticleer'	2"	20	Medium
Sy	6	Japanese Lilac Tree	Syringa prestoniae	2"	20	Low
<i>Evergreen Trees</i>						
Pf	15	Bakeri Spruce	Picea pungens 'Bakeri'	6'	15	Medium
Pg	12	Black Hills Spruce	Picea glauca 'Densata'	8'	20	Medium
<i>Shrubs</i>						
Ai		Iroquois Beauty Dwarf Chokeberry	Aronia melanocarpa 'Iroquois Beauty'	5 gal.	3	Low
Bt		Redleafed Japanese Barberry	Berberis thunbergii 'Atropurpurea'	5 gal.	5	Low
Ca		Red Gnome Dogwood	Cornus alba 'Red Gnome'	5 gal.	4.5	Medium
Cs		Arctic Fire Dogwood	Cornus serica 'Arctic Fire'	5 gal.	3	Medium
Ea		Dwarf Burning Bush	Euonymus alatus 'Compactus'	5 gal.	7	Medium
Ec		Mission Bells California Poppy	Eschscholzia californica 'Mission Bells'	flats	1.5	Low
Ha		Annabelle Smooth Hydrangea	Hydrangea arborescens 'Annabelle'	5 gal.	3.5	Medium
Jx		Sea Green Juniper	Juniperus x media 'Sea Green'	5 gal.	7	Low
La		Deep Blue Lavender	Lavandula angustifolia 'Hidcote'	1 gal.	1.5	Low
Ma		Oregon Grape Holly	Mahonia aquifolium	5 gal.	5	Low
Ms		Compact Maiden Grass	Miscanthus sinensis 'Adagio'	1 gal.	2.5	Medium
Pf		Jackman Potentilla	Potentilla fruticosa 'Jackmannii'	5 gal.	3	Low
Pm		White Bud Mugo Pine	Pinus mugo 'White Bud'	5 gal.	3	Low
Po		Dwarf Ninebark	Physocarpus opulifolius 'Nanus'	5 gal.	4	Low
Rf		Flower Carpet Red Rose	Rosa 'Flower Carpet Red'	5 gal.	2.5	Medium
Rsp		Red Flowering Currant	Ribes sanguineum 'King Edward IV'	5 gal.	5	Low
Rt		Linin' Easy Rose	Rosa Livin' Easy	5 gal.	4	Low
Sj		Three-Leaf Sumac	Rhus trilobata	5 gal.	5	Low
Sj		Neon Flash Spirea	Spirea japonica 'Neon Flash'	5 gal.	3	Low
Sm		Dwarf Korean Lilac	Syringa meyeri 'Palibin'	5 gal.	5	Low
Vo		Dwarf European Cranberry Bush	Viburnum opulus 'Nanum'	5 gal.	1.5	Medium
<i>Groundcover</i>						
Hs		Red Coral Bells	Heuchera sanguinea 'Splendens'	flats	1	Medium
Jc		Alpine Carpet Juniper	Juniperus communus 'Alpine Carpet'	5 gal.	5	Low
Mr		Creeping Colorado Holly	Mahonia Repens	Flats	1.5	Low
Pq		Virginia Creeper	Parthenocissus quinquefolia	1 ga. Vine		Low
Ss		Voodoo Stonecrop	Sedum spurium 'Voodoo'	Flats	1	Low
Tp		White Creeping Thyme	Thymus praecox 'Albiflorus'	Flats	1	Low
Tp		Mother of Thyme	Thymus praecox arcticus	flats	1	Low
Va		Crater Lake Blue Speedwell	Veronica astriaca 'Crater Lake Blue'	1 gal.	1	Low
Vc		Crystal River Speedwell	Veronica 'Crystal River'	Flats	1	Low
Vm		Illumination Periwinkle	Vinca minor 'Illumination'	flats	1	Low
<i>Sod</i>						
		Eco-Turf (Bluegrass Varieties)			Irrigated	
<i>Seed Mixes</i>						
		Western Native Seeds "Meadow Mix"			1lb/1000sf Irrigated	Low



- CONTRACTOR TO VERIFY PERCOLATION OF PLANTING PIT PRIOR TO INSTALLATION
- SEE PLANT LIST FOR SPACING
  - 1-1/2" DEPTH, CANADIAN PEAT TOP DRESSING OR 1-1/2" DOUBLE PROCESSED WESTERN RED CEDAR MULCH
  - STEEL EDGING
  - EXCAVATE EXISTING SOIL 12" DEEP FILL WITH PLANT MIX. (SEE SPECS.)
  - UNDISTURBED SUBGRADE

**1 PERENNIAL/GROUNDCOVER PLANTING DETAIL**  
N.T.S.

- NOTES:
- INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
  - ALL DIMENSIONS ARE CONSIDERED TRUE AND REFLECT MANUFACTURER'S SPECIFICATIONS.
  - DO NOT SCALE DRAWING.
  - FOR ORDERING DIVIDE NUMBER OF FEET NEEDED BY 9.33 TO OBTAIN THE NUMBER OF 10' PEICES NEEDED.
  - CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT [www.CADdetails.com/info](http://www.CADdetails.com/info) REFERENCE NUMBER: 1023-007.

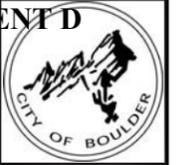


**2 STEEL EDGING**  
N.T.S.

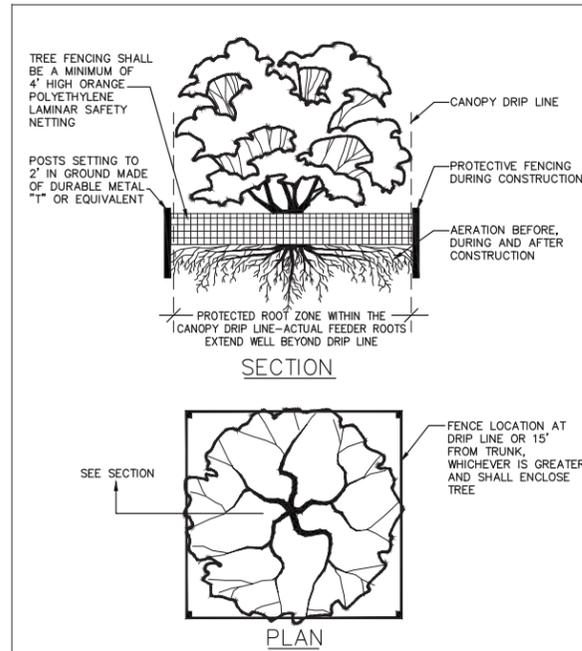
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3	10/26/19	JWB	JWB	SDP 3rd Re-Submittal

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JOB #: 2408.3c  
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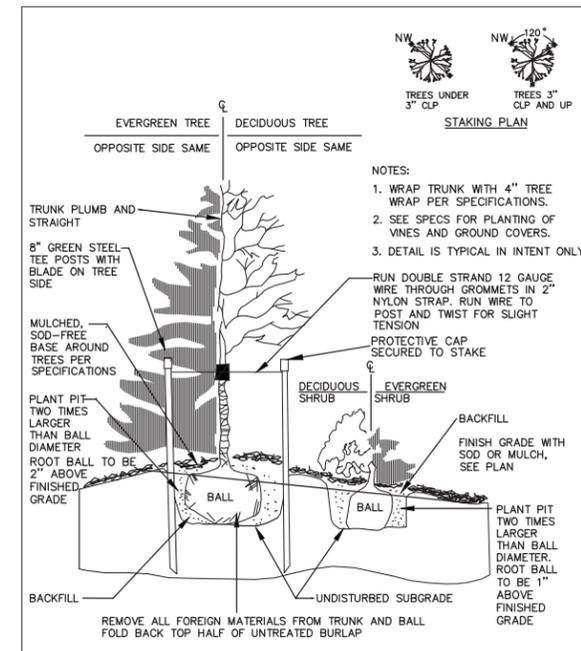
LANDSCAPE DETAILS  
PONDEROSA COMMUNITY STABILIZATION PROGRAM (LUR2019-00015) BOULDER, COLORADO



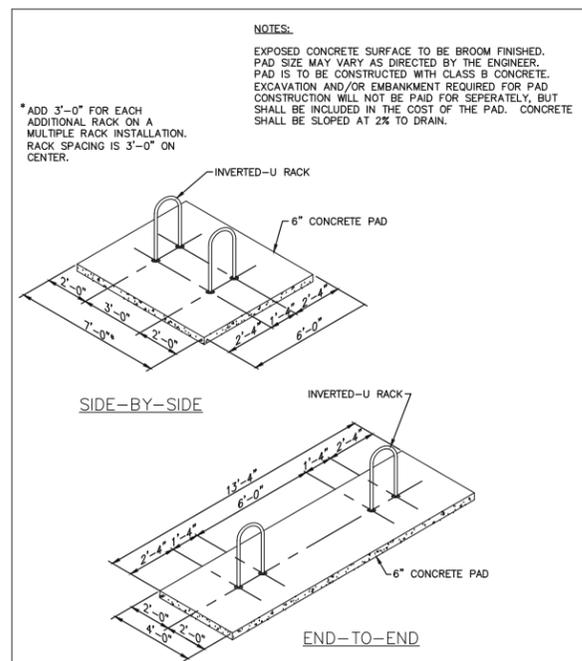
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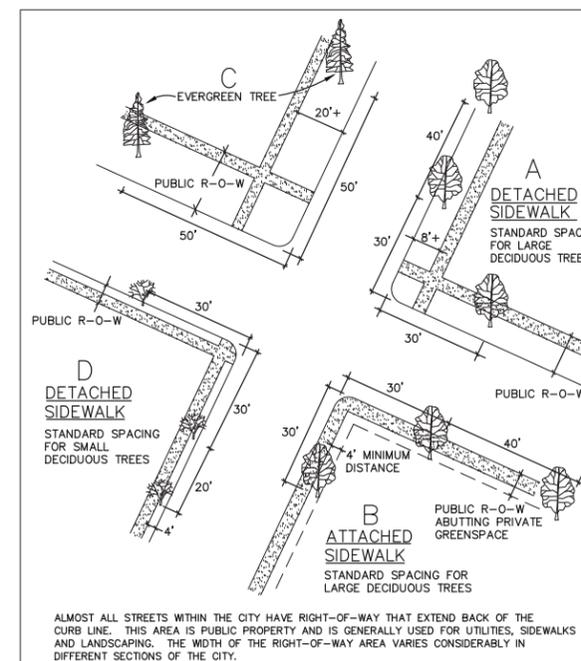
DRAWN BY: JSH CHECKED BY: RJH APPROVED BY: DIRECTOR OF PUBLIC WORKS	CITY OF BOULDER, COLORADO <b>PROTECTED ROOT ZONE AND DRIP LINE</b>	ISSUED: JULY 2, 1998 REVISED: OCT. 17, 2000 DRAWING NO. 3.12
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DRAWN BY: JSH CHECKED BY: RJH APPROVED BY: DIRECTOR OF PUBLIC WORKS	CITY OF BOULDER, COLORADO <b>BICYCLE PARKING</b>	ISSUED: JULY 2, 1998 REVISED: OCT. 17, 2000 DRAWING NO. 2.53
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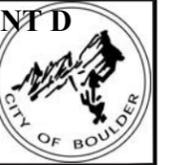
DRAWN BY: JSH CHECKED BY: RJH APPROVED BY: DIRECTOR OF PUBLIC WORKS	CITY OF BOULDER, COLORADO <b>STREETSCAPE TREE SPACING AND LOCATION</b>	ISSUED: JULY 2, 1998 REVISED: OCT. 17, 2000 DRAWING NO. 3.01
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NO.	DATE	DESIGNER	DRAWN	REVISION DESCRIPTION
3	10/28/19	JWB	JWB	SDP 3rd Re-Submit

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 CHECKED BY: JWB  
 JOB #: 2408.3c  
 DATE: 07/29/2019  
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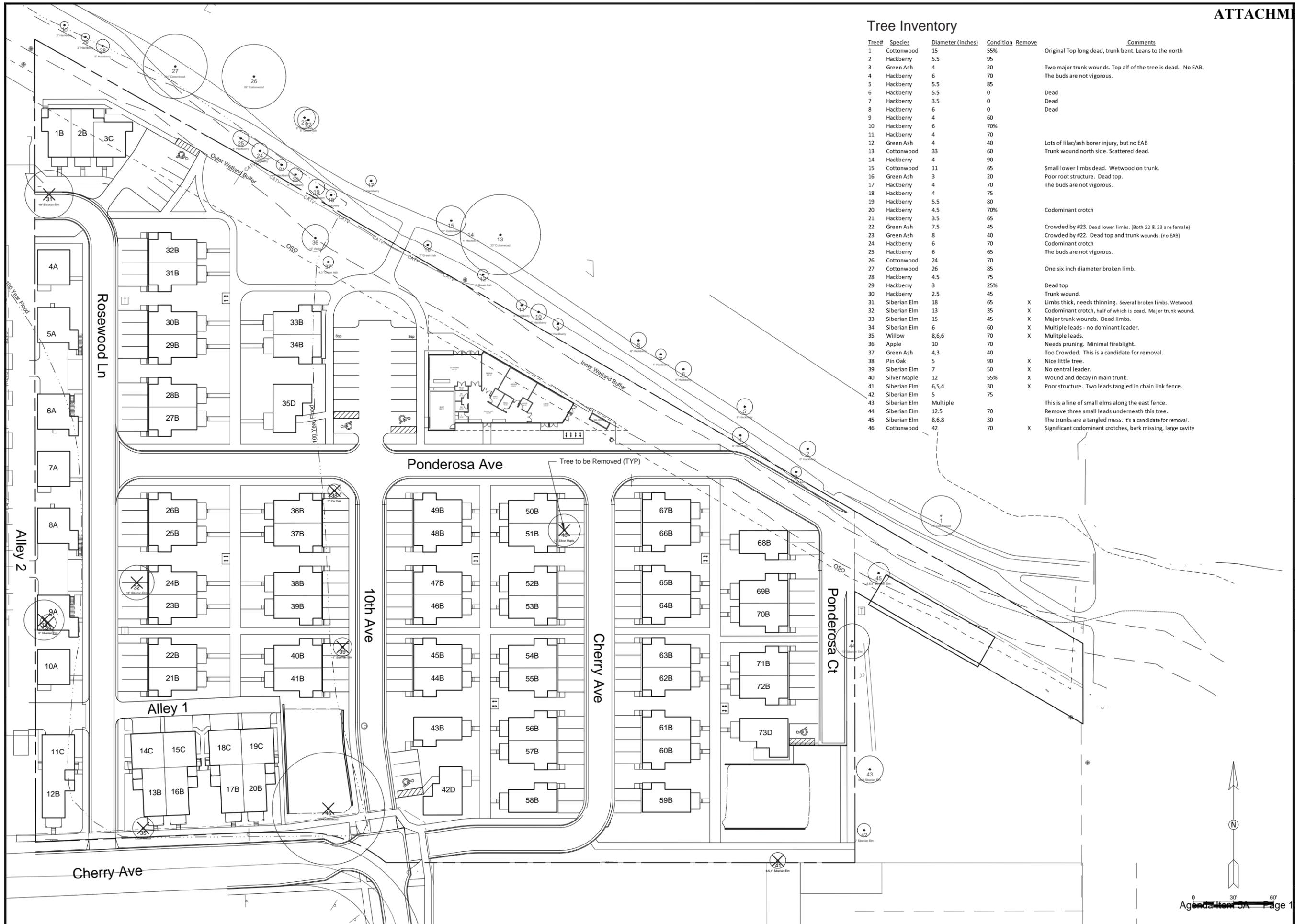
CITY OF BOULDER STANDARD DETAILS



**JB FIELDWORKS**  
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Tree Inventory

Tree#	Species	Diameter (inches)	Condition	Remove	Comments
1	Cottonwood	15	55%		Original Top long dead, trunk bent. Leans to the north
2	Hackberry	5.5	95		
3	Green Ash	4	20		Two major trunk wounds. Top alf of the tree is dead. No EAB.
4	Hackberry	6	70		The buds are not vigorous.
5	Hackberry	5.5	85		
6	Hackberry	5.5	0		Dead
7	Hackberry	3.5	0		Dead
8	Hackberry	6	0		Dead
9	Hackberry	4	60		
10	Hackberry	6	70%		
11	Hackberry	4	70		
12	Green Ash	4	40		Lots of lilac/ash borer injury, but no EAB
13	Cottonwood	33	60		Trunk wound north side. Scattered dead.
14	Hackberry	4	90		
15	Cottonwood	11	65		Small lower limbs dead. Wetwood on trunk.
16	Green Ash	3	20		Poor root structure. Dead top.
17	Hackberry	4	70		The buds are not vigorous.
18	Hackberry	4	75		
19	Hackberry	5.5	80		
20	Hackberry	4.5	70%		Codominant crotch
21	Hackberry	3.5	65		
22	Green Ash	7.5	45		Crowded by #23. Dead lower limbs. (Both 22 & 23 are female)
23	Green Ash	8	40		Crowded by #22. Dead top and trunk wounds. (no EAB)
24	Hackberry	6	70		Codominant crotch
25	Hackberry	6	65		The buds are not vigorous.
26	Cottonwood	24	70		
27	Cottonwood	26	85		One six inch diameter broken limb.
28	Hackberry	4.5	75		
29	Hackberry	3	25%		Dead top
30	Hackberry	2.5	45		Trunk wound.
31	Siberian Elm	18	65	X	Limbs thick, needs thinning. Several broken limbs. Wetwood.
32	Siberian Elm	13	35	X	Codominant crotch, half of which is dead. Major trunk wound.
33	Siberian Elm	15	45	X	Major trunk wounds. Dead limbs.
34	Siberian Elm	6	60	X	Multiple leads - no dominant leader.
35	Willow	8,6,6	70	X	Multiple leads.
36	Apple	10	70		Needs pruning. Minimal fireblight.
37	Green Ash	4,3	40		Too Crowded. This is a candidate for removal.
38	Pin Oak	5	90	X	Nice little tree.
39	Siberian Elm	7	50	X	No central leader.
40	Silver Maple	12	55%	X	Wound and decay in main trunk.
41	Siberian Elm	6,5,4	30	X	Poor structure. Two leads tangled in chain link fence.
42	Siberian Elm	5	75		
43	Siberian Elm	Multiple			This is a line of small elms along the east fence.
44	Siberian Elm	12.5	70		Remove three small leads underneath this tree.
45	Siberian Elm	8,6,8	30		The trunks are a tangled mess. It's a candidate for removal.
46	Cottonwood	42	70	X	Significant codominant crotches, bark missing, large cavity



NO.	DATE	DES'D	JWB	DWN	REVISION DESCRIPTION
3	07/29/19	JWB		DWN	SDP 3rd Re-Submittal

DESIGNED BY: JWB  
 DRAWN BY: JWB  
 CHECKED BY: JWB  
 JOB #: 2408.3c  
 DATE: 07/29/2019  
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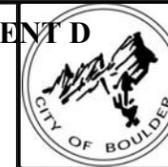
PONDEROSA COMMUNITY STABILIZATION  
 PROGRAM (LUR2019-00015)  
 BOULDER, COLORADO  
 TREE INVENTORY

# CITY OF BOULDER

## PONDEROSA COMMUNITY STABILIZATION PROGRAM

### BOULDER, COLORADO

#### SITE REVIEW SUBMITTAL (LUR2019-00015)



CONTACTS

<b>OWNER:</b>	CITY OF BOULDER 1300 CANYON BLVD BOULDER, COLORADO 80306	CRYSTAL LAUNDER (303) 441-4141 LAUNDERC@BOULDERCOLORADO.GOV
<b>OWNER'S REP:</b>	TRESTLE STRATEGY GROUP 1350 PINE ST. #5 BOULDER, COLORADO 80302	DANICA POWELL (303) 579-6221 DANICA@TRESTLESTRATEGY.COM
<b>ARCHITECT:</b>	CADDIS ARCHITECTURE 1510 ZAMIA AVE #103 BOULDER, COLORADO 80304	KRISTEN UITTO (303) 443-3629 KRISTEN@CADDISPC.COM
<b>LANDSCAPE ARCHITECT:</b>	JB FIELDWORKS 2428 20TH STREET BOULDER, COLORADO 80304	JAIMSON W. BROWN (734) 626-5467 JAIMSON@JBFIELDWORKS.COM
<b>CIVIL ENGINEER:</b>	JVA, INC 1319 SPRUCE STREET BOULDER, CO 80302	SHARON B. PROCOPIO, P.E. (303) 565-4932 SPROCOPIO@JVAJVA.COM



LOCATION MAP  
NTS

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L-1	LANDSCAPE PLAN
L-2	LANDSCAPE DETAILS
L-3	CITY OF BOULDER STANDARD DETAILS
L-4	TREE INVENTORY
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A121	CARRIAGE HOUSE A - FLOOR PLANS & ELEVATIONS
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C4.0	PRELIMINARY ROAD SECTIONS
C5.0	DRAFT EASEMENT EXHIBIT
E1.0	SITE LIGHTING PHOTOMETRIC
E2.0	SITE LIGHTING PHOTOMETRIC SCHEDULES

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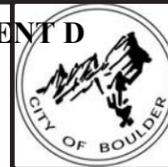
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 BOULDER, COLORADO  
 SITE REVIEW COVER SHEET

SHEET NO.

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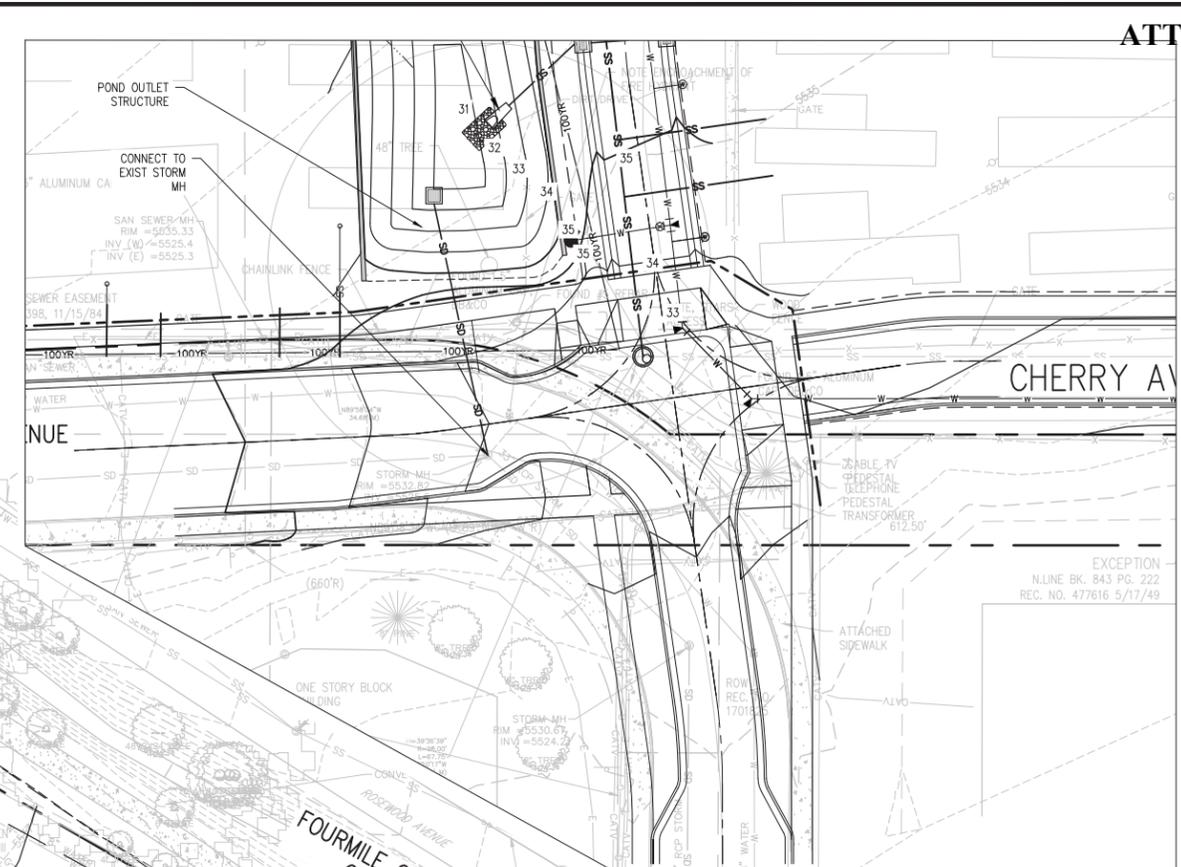
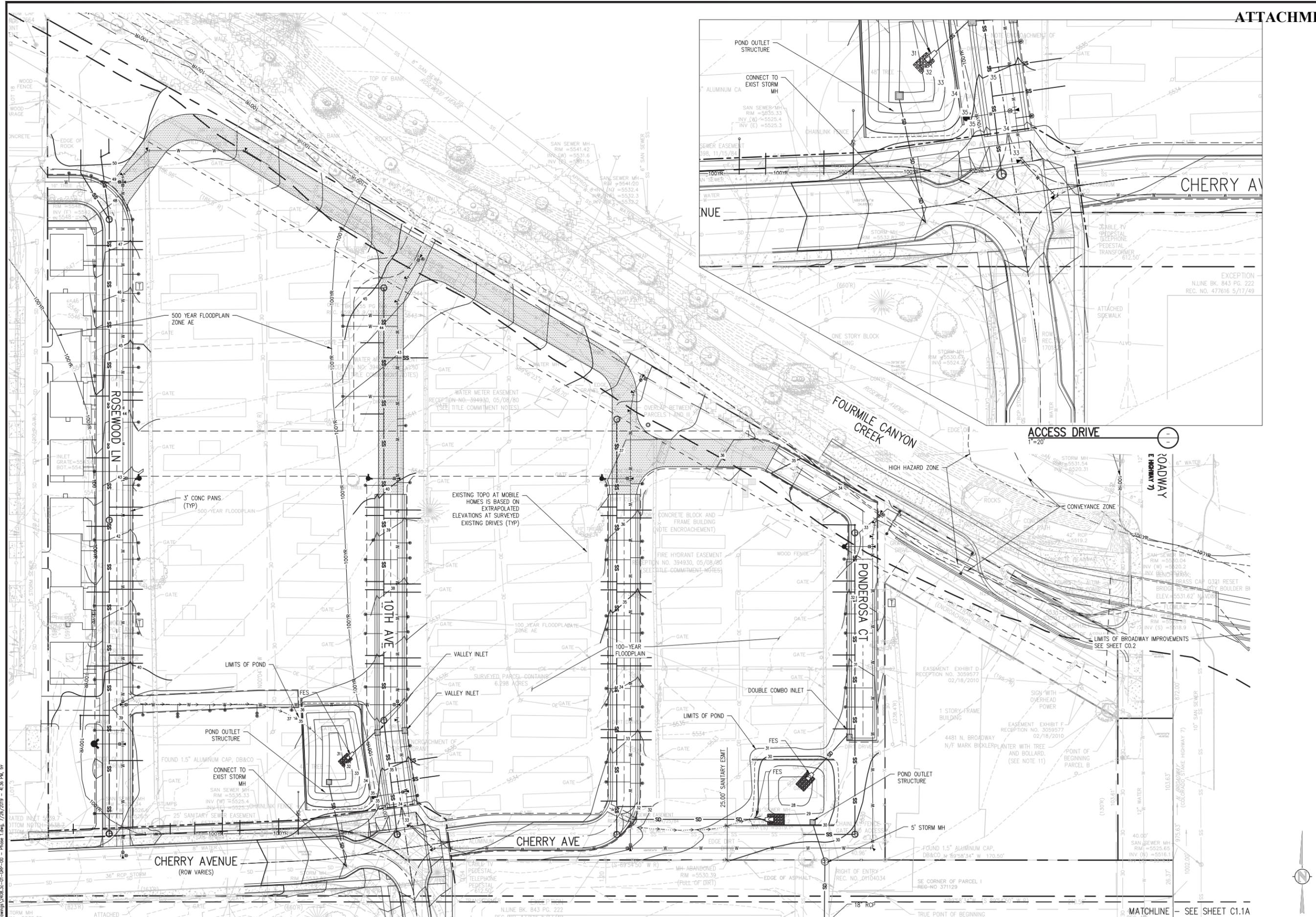
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BOULDER, COLORADO  
PHASE 1A PRELIMINARY GRADING AND DRAINAGE PLAN

SHEET NO.



EXCEPTION  
NLINE BK. 843 PG. 222  
REC. NO. 477616 5/17/49

ACCESS DRIVE  
1"=20'

ROADWAY  
HIGHWAY 7)

6" WATER

CONVEYANCE ZONE

ROCKS

STORM MH

CONCRETE BLOCK AND FRAME BUILDING

WOOD FENCE

GATE

CONCRETE BLOCK AND FRAME BUILDING

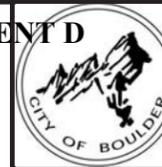
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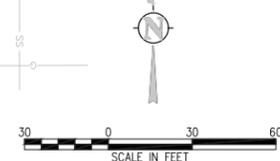
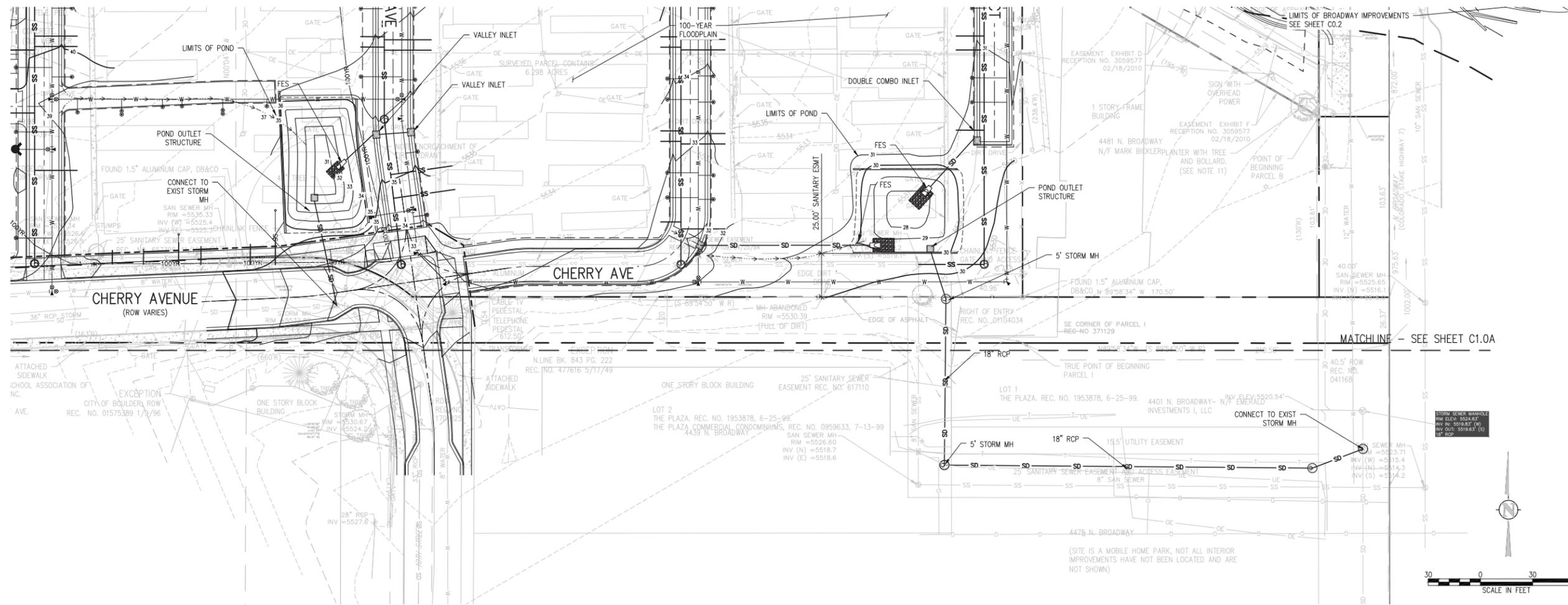
SEE SHEET C1.1A

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Page 139 of 241.0A



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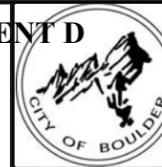
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 PROGRAM (LUR2019-00015)  
 BOULDER, COLORADO  
 PHASE 1A PRELIMINARY GRADING AND  
 DRAINAGE PLAN (SOUTH)

SHEET NO.

21.1A

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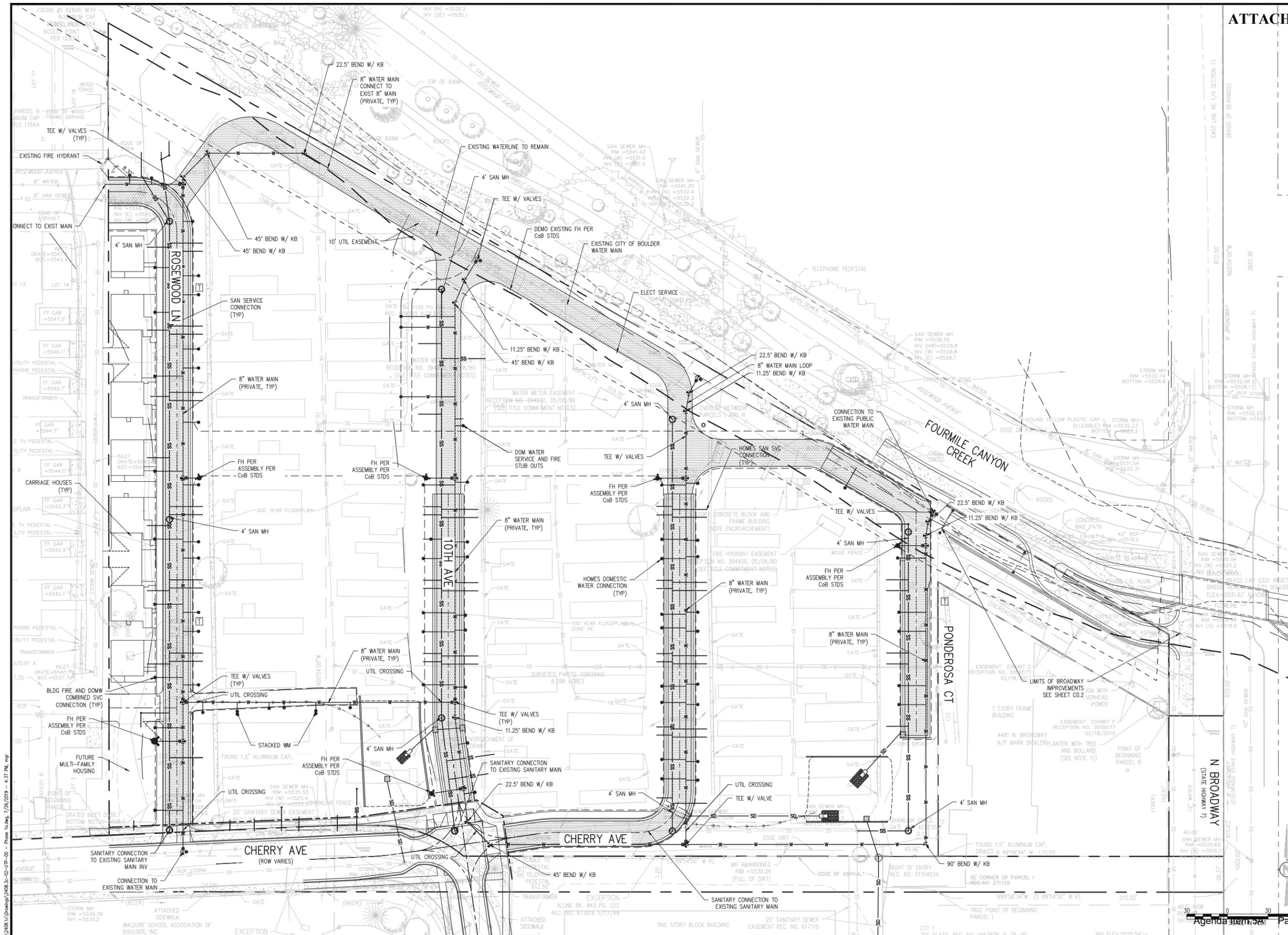
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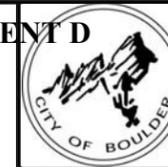
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PHASE 1A PRELIMINARY UTILITY PLAN

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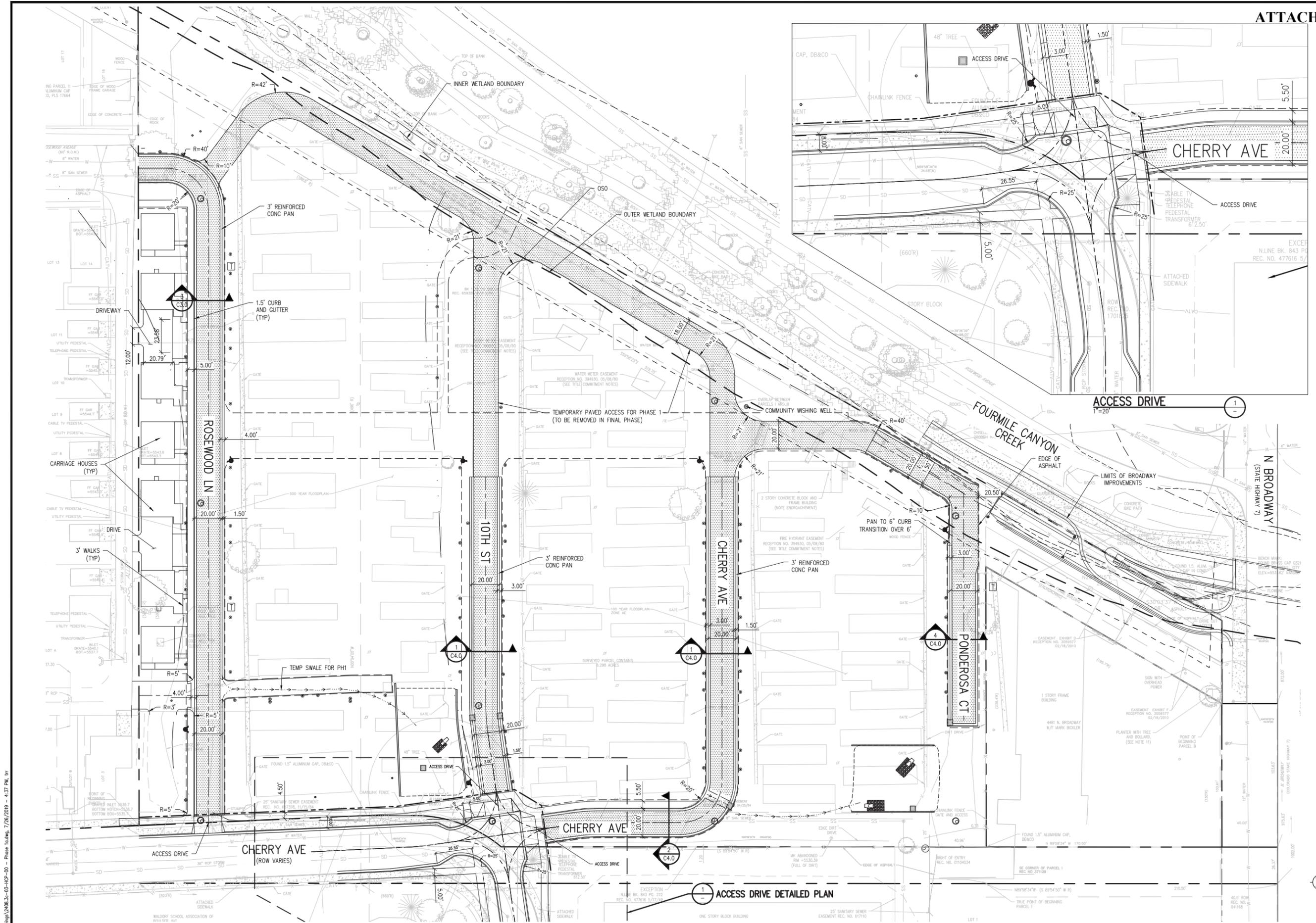
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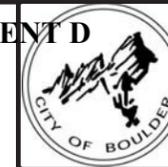
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BOULDER, COLORADO  
PHASE 1A PRELIMINARY HORIZONTAL  
CONTROL PLAN

SHEET NO.

23.0A



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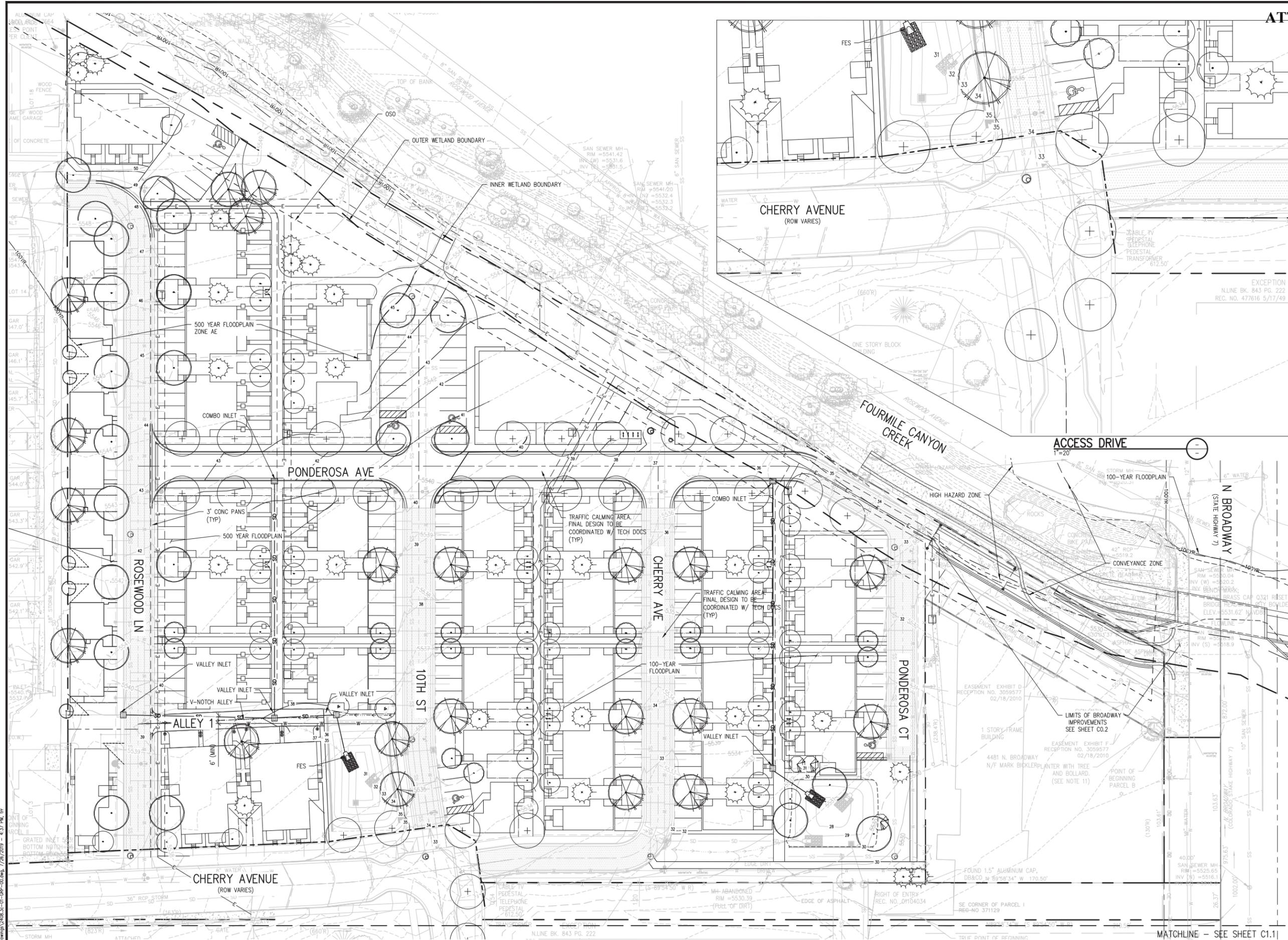
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BOULDER, COLORADO  
GRADING AND DRAINAGE PLAN

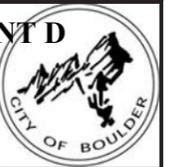
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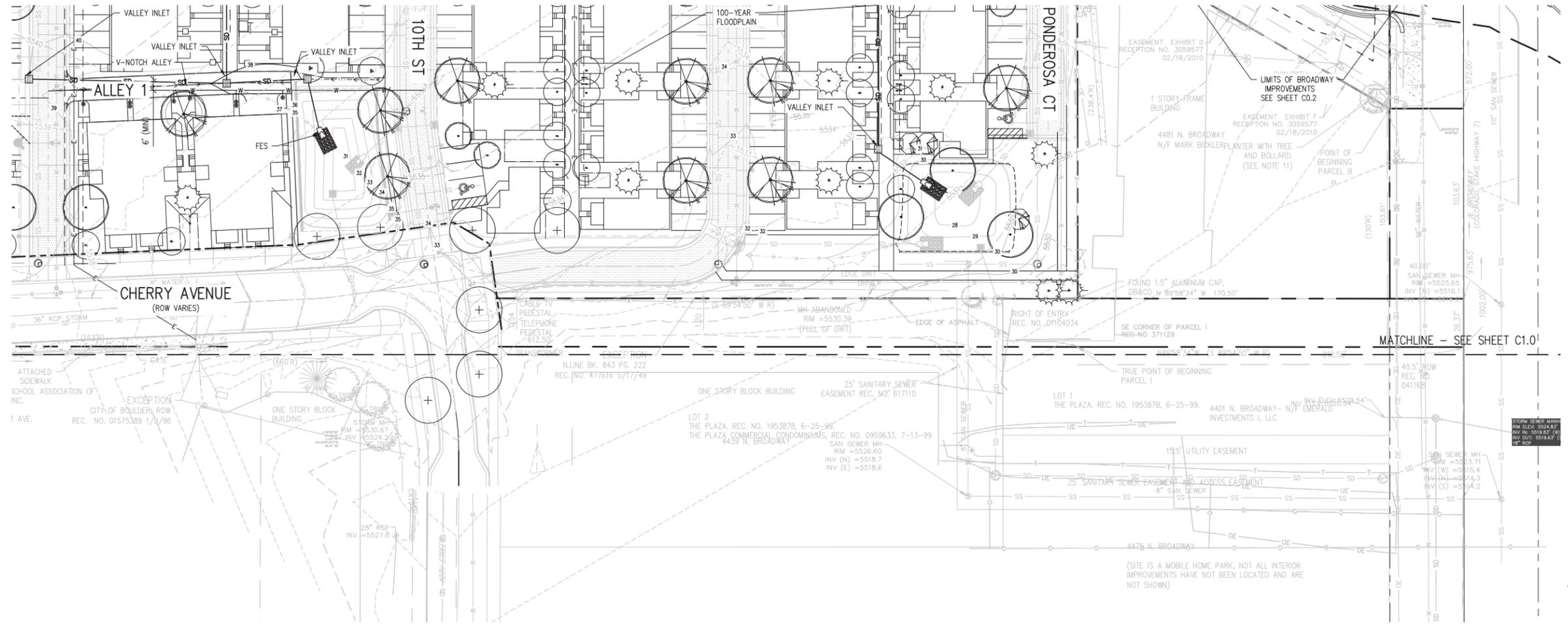
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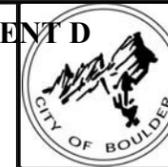
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BOULDER, COLORADO  
GRADING AND DRAINAGE PLAN (SOUTH)

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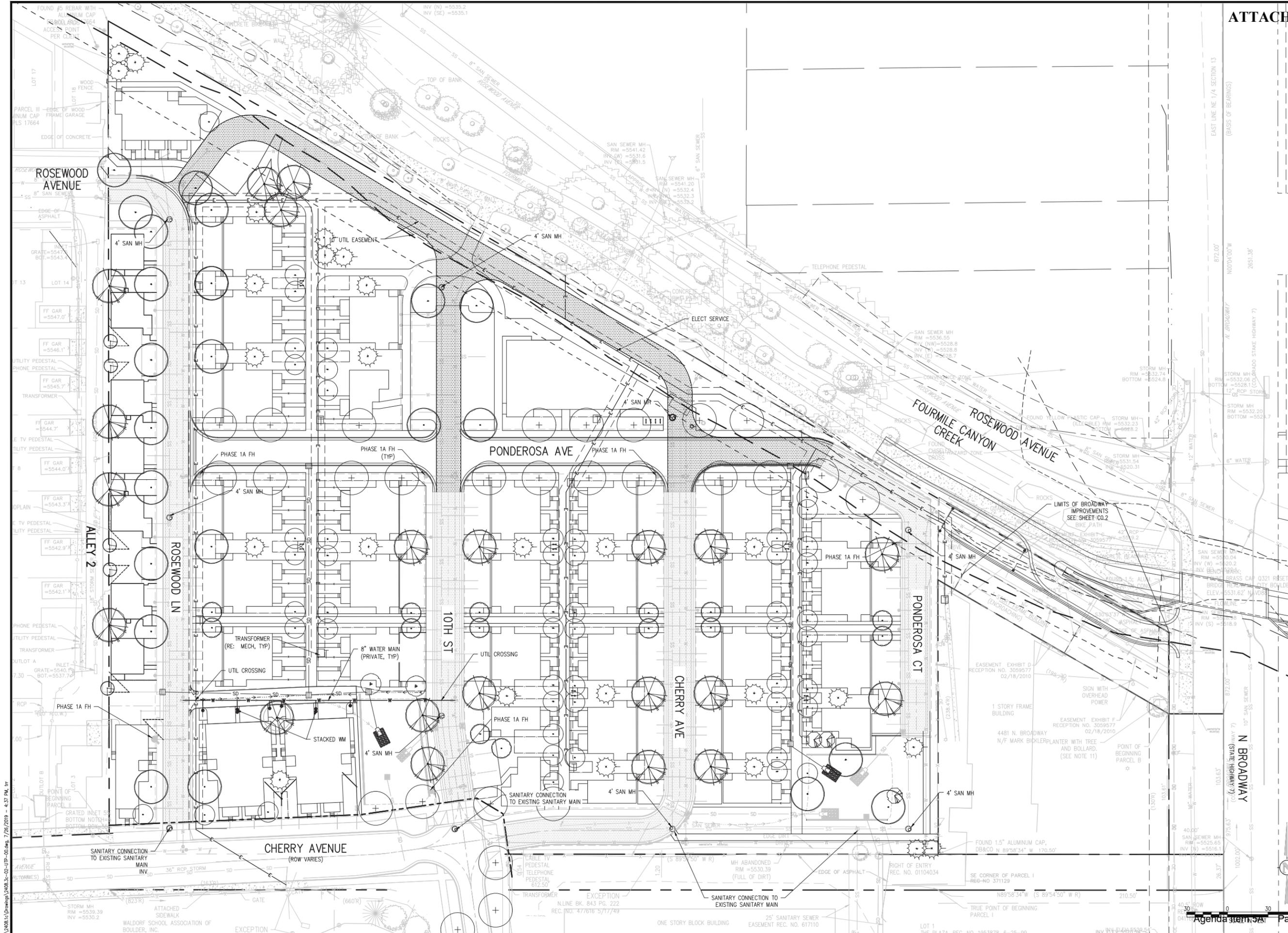
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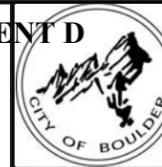
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BOULDER, COLORADO  
PRELIMINARY UTILITY PLAN

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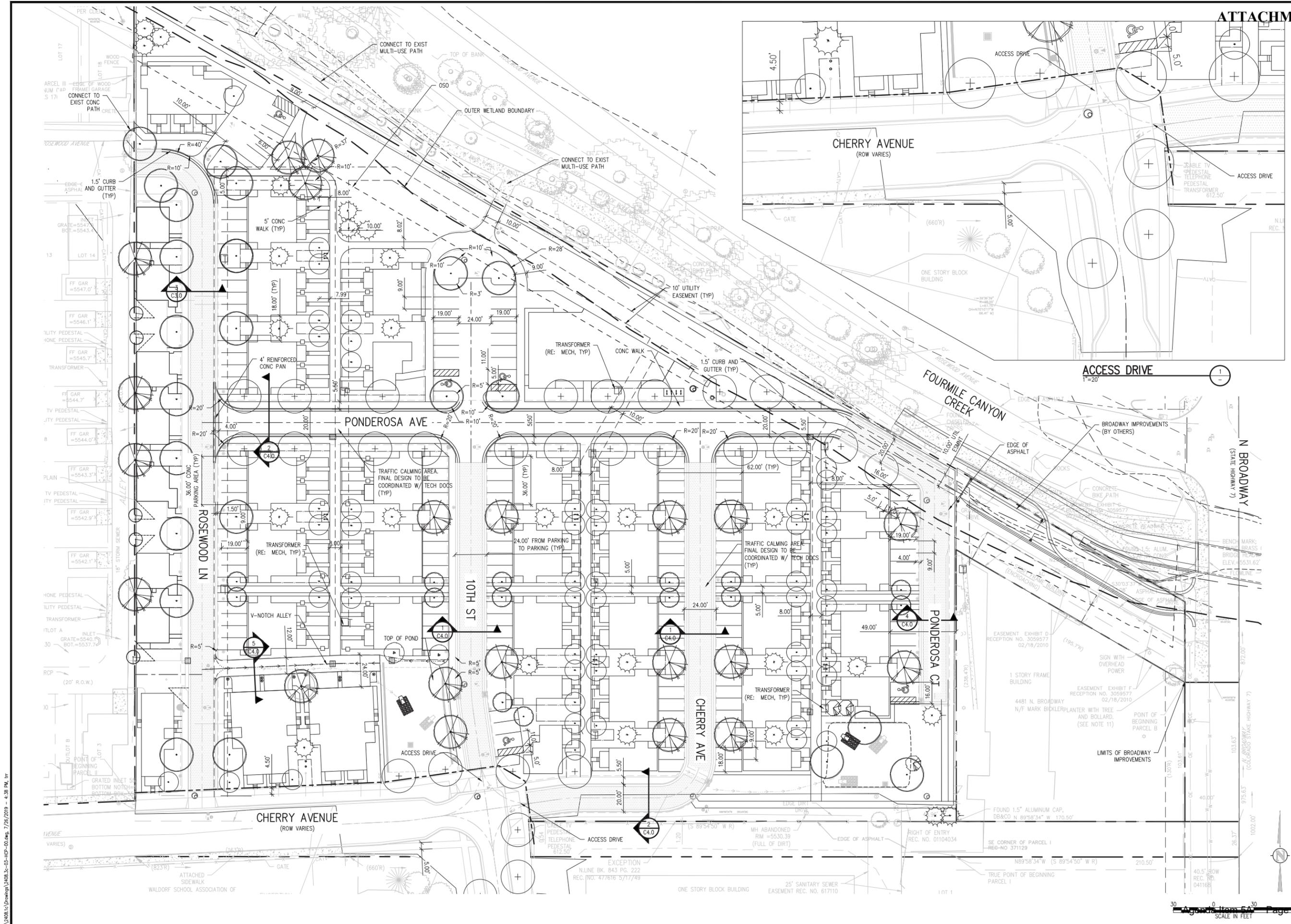
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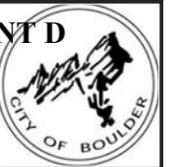
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BOULDER, COLORADO  
PRELIMINARY HORIZONTAL CONTROL PLAN

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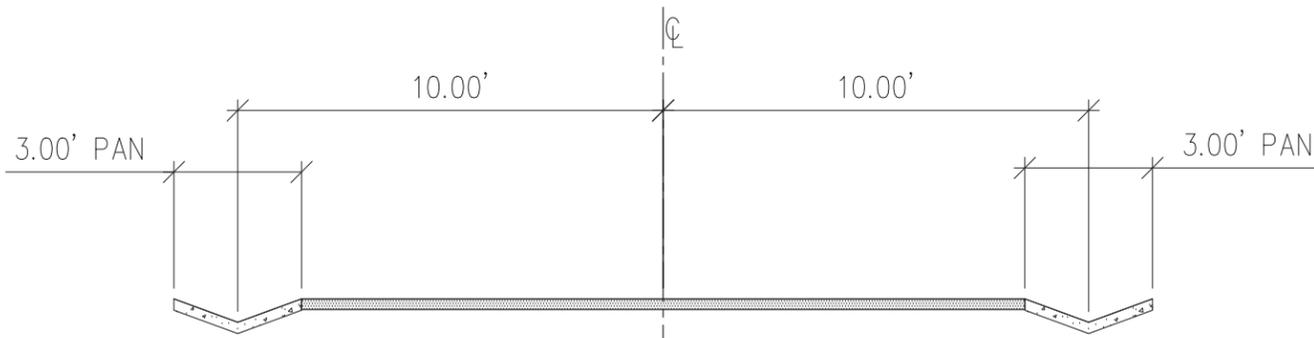
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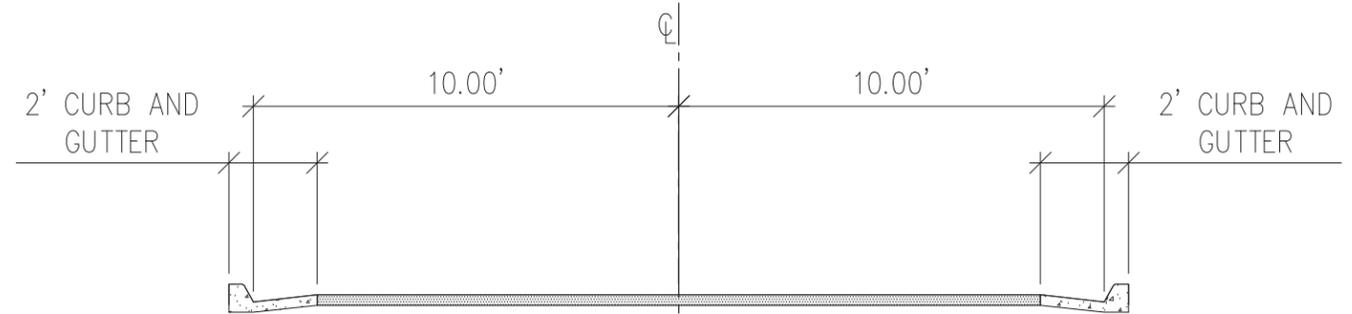
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BOULDER, COLORADO  
PRELIMINARY ROAD SECTIONS

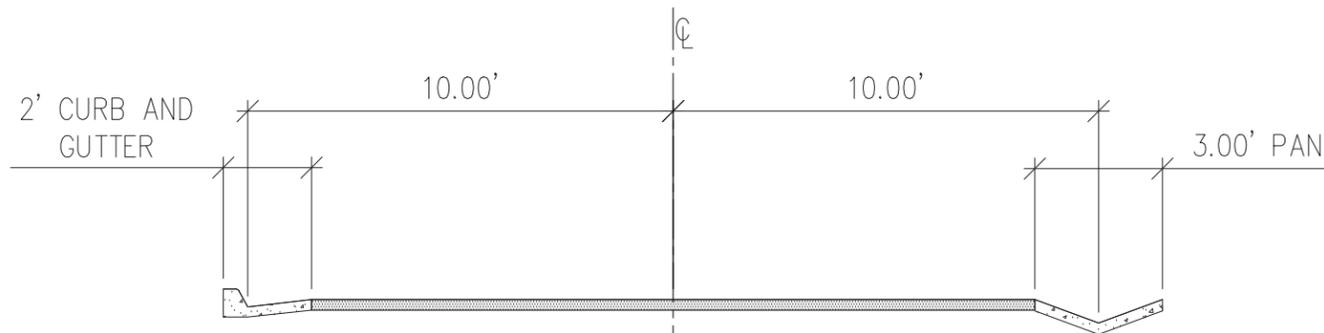
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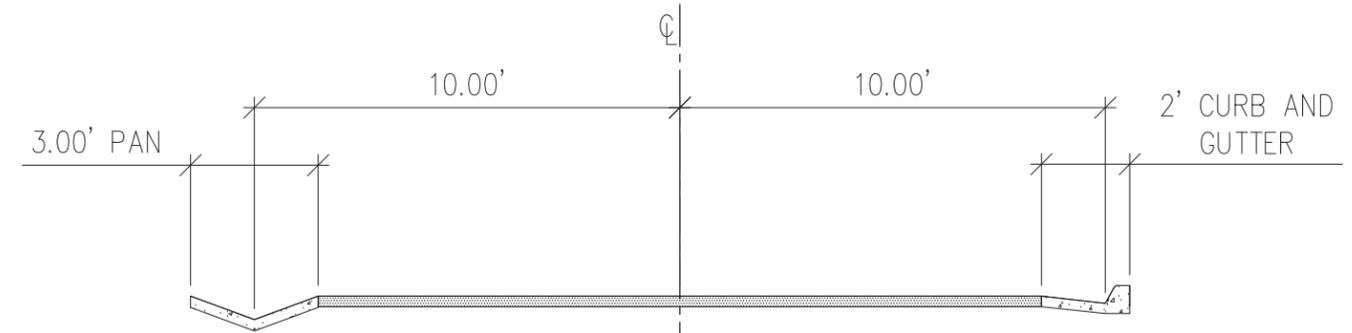
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NTS C3.0



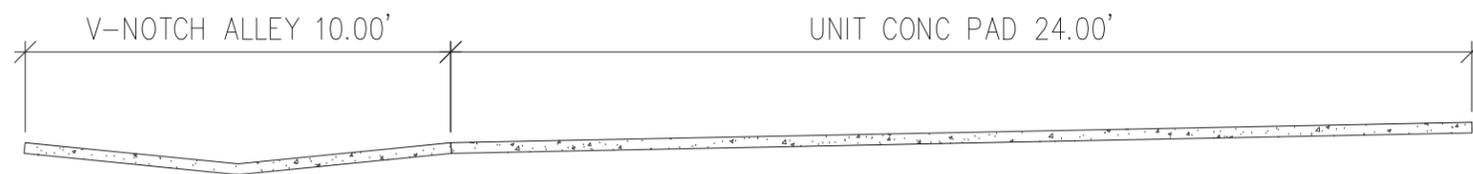
PRIVATE DOUBLE CURB AND GUTTER 2  
NTS C3.0



PRIVATE WEST CURB AND GUTTER 3  
NTS C3.0

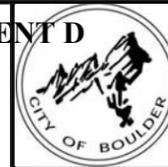


PRIVATE EAST CURB AND GUTTER 4  
NTS C3.0



PRIVATE V-NOTCH ALLEY 5  
NTS C3.0

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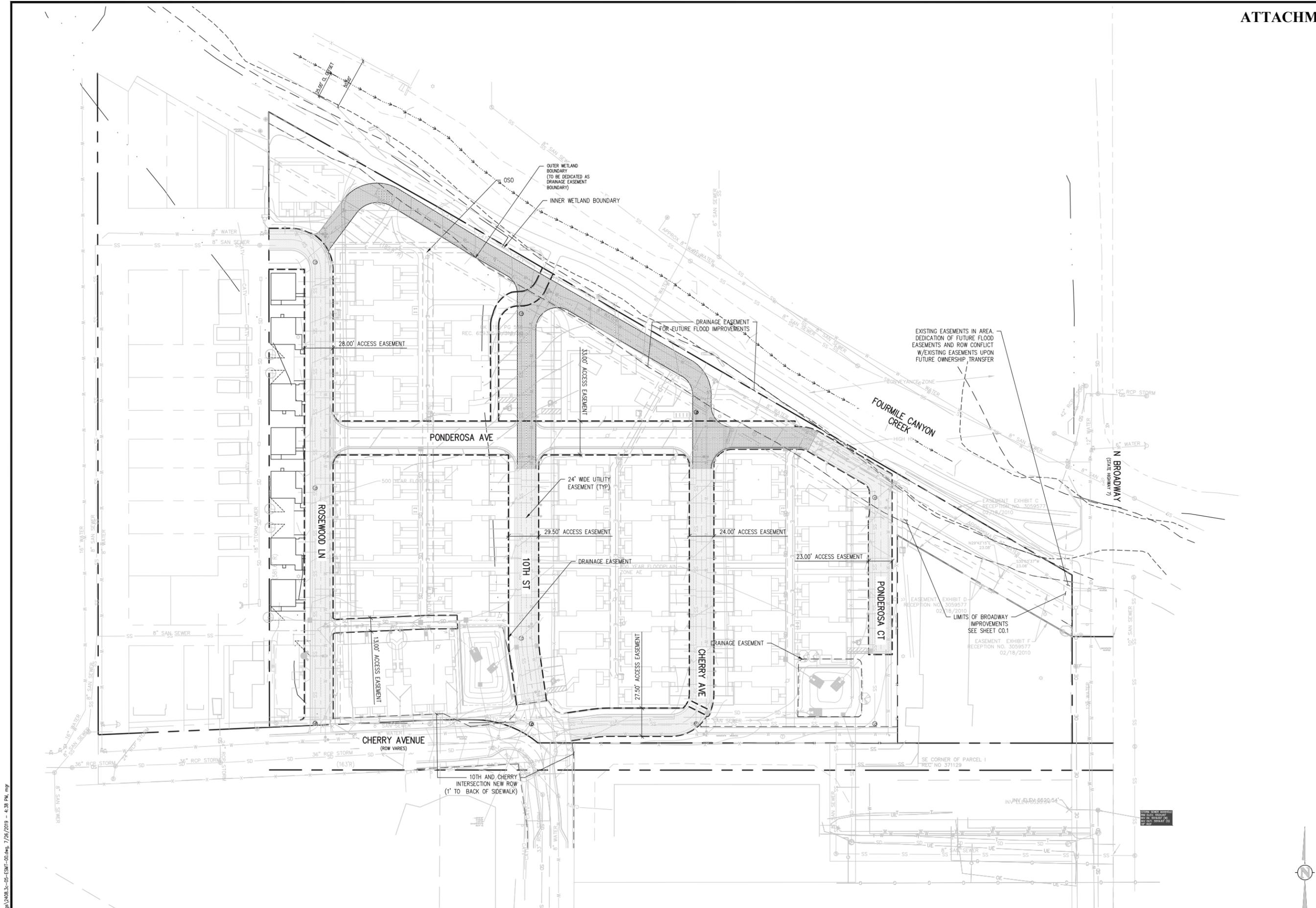
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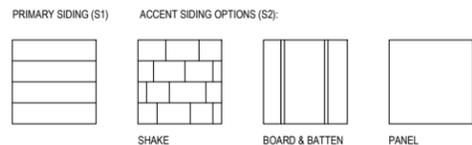
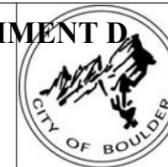
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 BOULDER, COLORADO  
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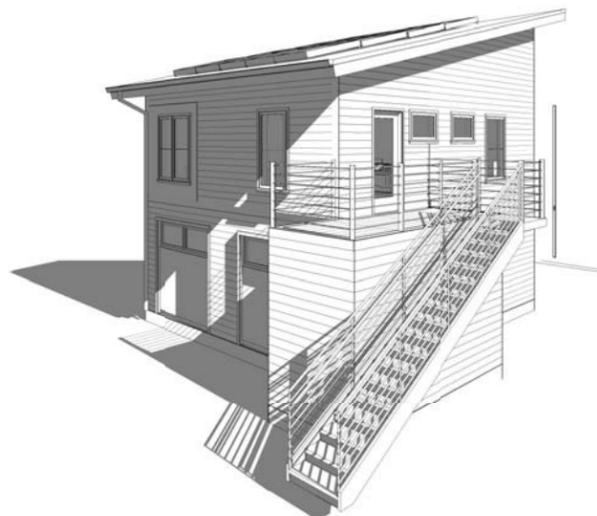
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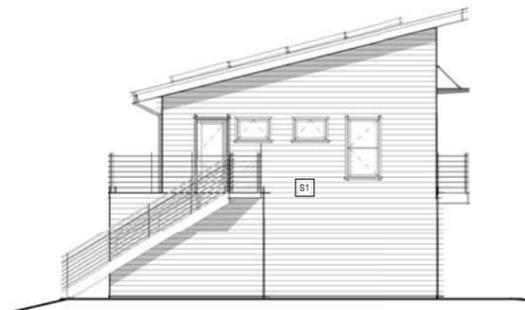
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EXTERIOR SIDING LEGEND



7 CARRIAGE HOUSE A - PERSPECTIVE



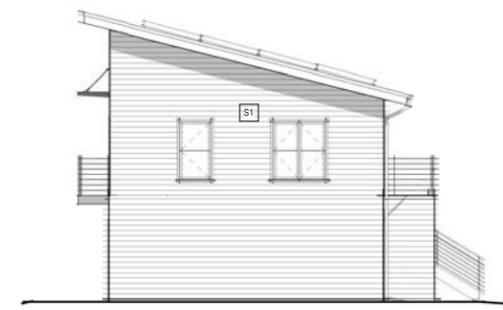
6 CARRIAGE HOUSE A - WEST ELEVATION  
1/8" = 1'-0"



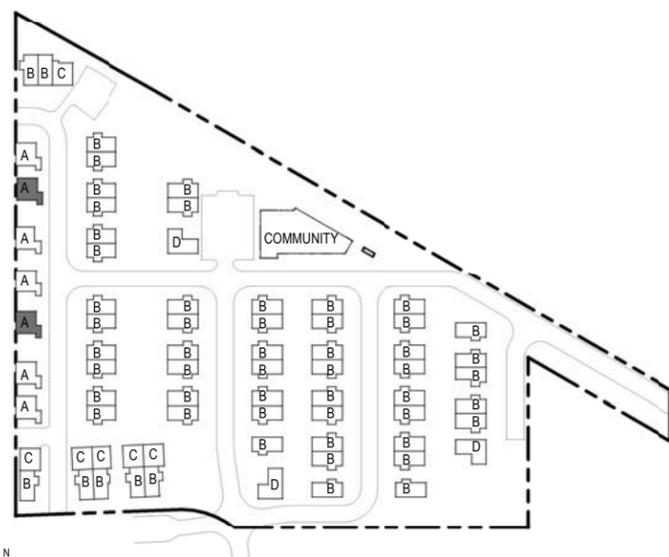
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1/8" = 1'-0"



4 CARRIAGE HOUSE A - SOUTH ELEVATION  
1/8" = 1'-0"



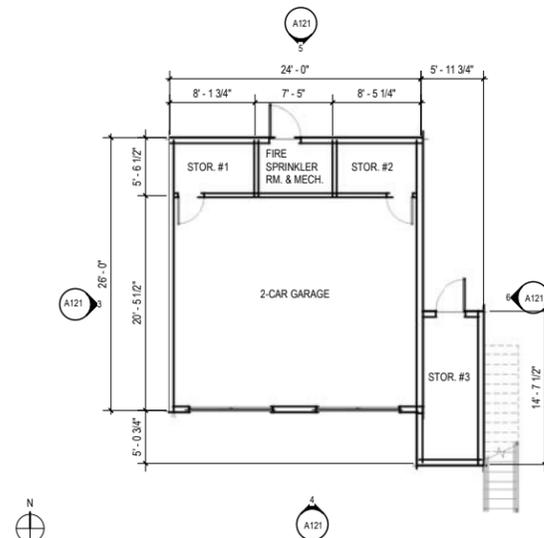
3 CARRIAGE HOUSE A - EAST ELEVATION  
1/8" = 1'-0"



CARRIAGE HOUSE A - SITE PLAN KEY



2 CARRIAGE HOUSE A - LEVEL 2  
1/8" = 1'-0"  
UNIT A AREA - 634 SF



1 CARRIAGE HOUSE A - LEVEL 1  
1/8" = 1'-0"  
UNIT A GARAGE AREA - 725 SF  
TOTAL AREA - 1359 SF

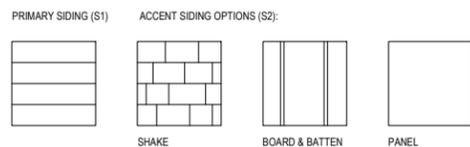
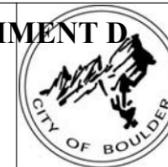
UNIT PLANS ARE SHOWN FOR REFERENCE ONLY

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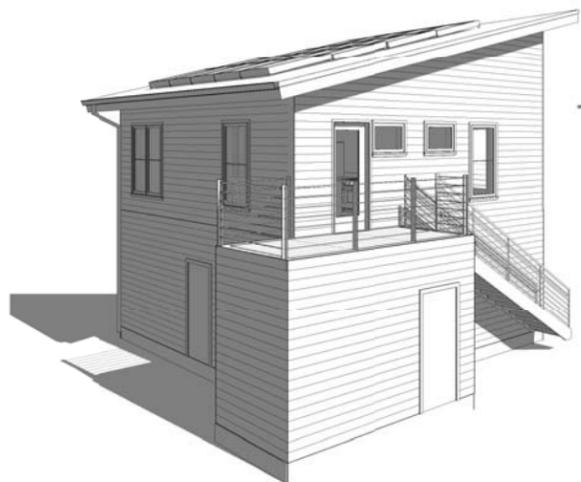
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CARRIAGE HOUSE A - FLOOR PLANS & ELEVATIONS

SHEET NO.

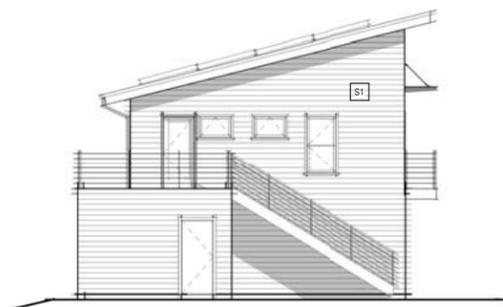
A121



EXTERIOR SIDING LEGEND



7 CARRIAGE HOUSE A2 - PERSPECTIVE



6 CARRIAGE HOUSE A2 - EAST ELEVATION  
1/8" = 1'-0"



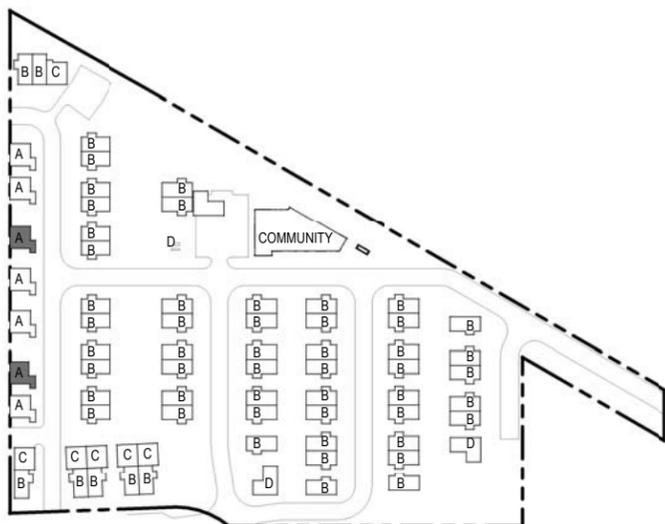
5 CARRIAGE HOUSE A2 - NORTH ELEVATION  
1/8" = 1'-0"



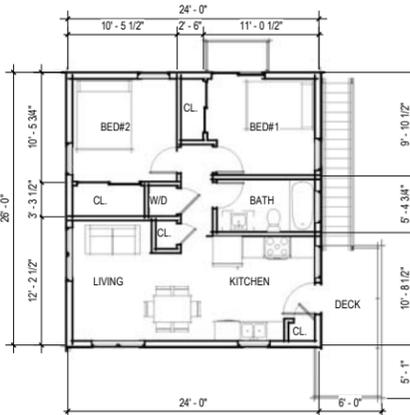
4 CARRIAGE HOUSE A2 - WEST ELEVATION  
1/8" = 1'-0"



3 CARRIAGE HOUSE A2 - SOUTH ELEVATION  
1/8" = 1'-0"

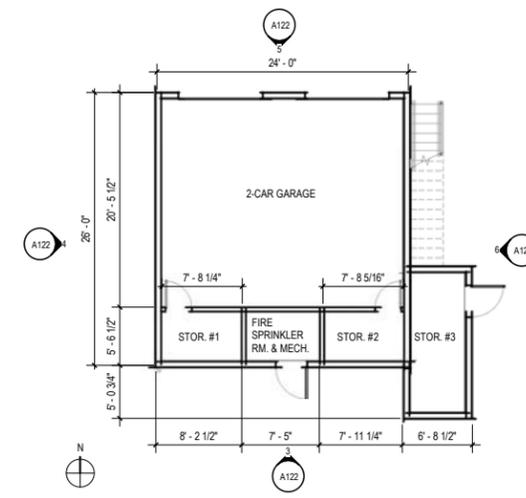


CARRIAGE HOUSE - SITE PLAN KEY



2 CARRIAGE HOUSE A2 - LEVEL 2  
1/8" = 1'-0"

UNIT A2 AREA - 634



1 CARRIAGE HOUSE A2 - LEVEL 1  
1/8" = 1'-0"

UNIT A2 AREA - 725  
TOTAL AREA - 1359

UNIT PLANS ARE SHOWN FOR  
REFERENCE ONLY

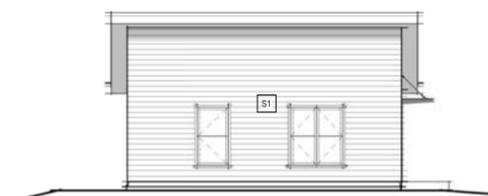
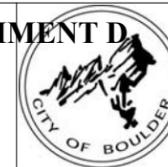
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BOULDER, COLORADO  
CARRIAGE HOUSE A2 - FLOOR  
PLANS & ELEVATIONS

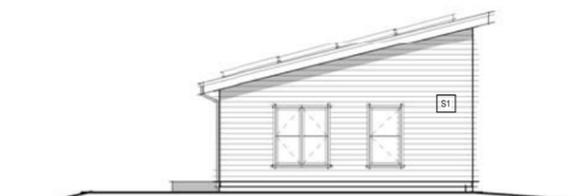
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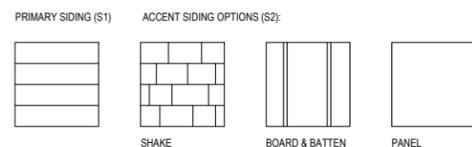




6 SINGLE FAMILY A - WEST ELEVATION  
1/8" = 1'-0"



5 SINGLE FAMILY A - NORTH ELEVATION  
1/8" = 1'-0"



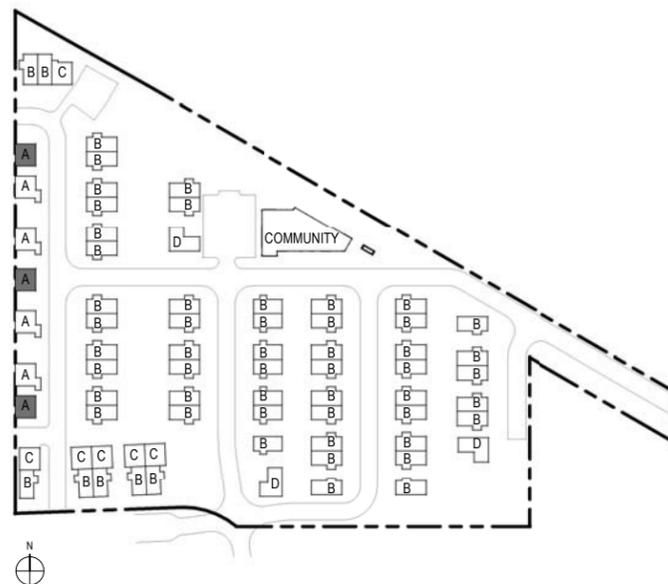
EXTERIOR SIDING LEGEND



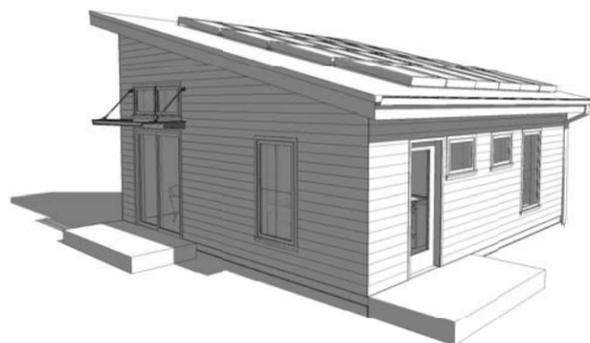
4 SINGLE FAMILY A - SOUTH ELEVATION  
1/8" = 1'-0"



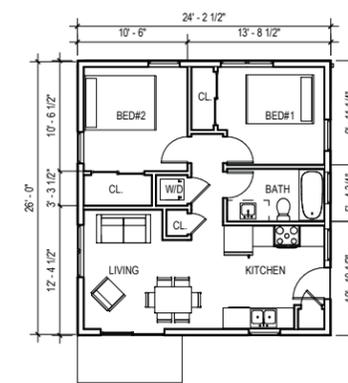
3 SINGLE FAMILY A - EAST ELEVATION  
1/8" = 1'-0"



SINGLE FAMILY A - SITE PLAN KEY



2 SINGLE FAMILY A



UNIT PLANS ARE SHOWN FOR REFERENCE ONLY

1 SINGLE FAMILY A - LEVEL 1  
1/8" = 1'-0"



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DRAWN BY: MGR/TRR  
CHECKED BY: CRH/SBP  
JOB #: 2408.3c  
DATE: 07/29/2019

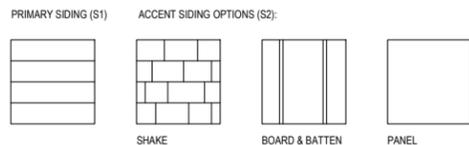
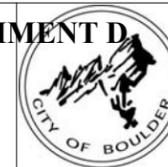
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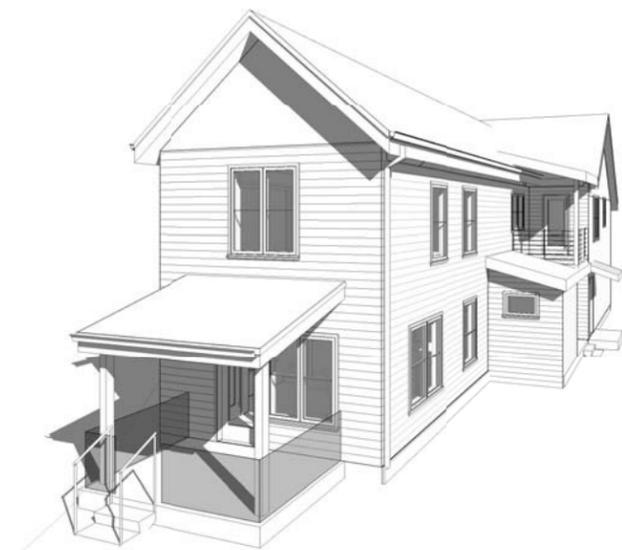
SINGLE FAMILY A

SHEET NO.

A123



EXTERIOR SIDING LEGEND



7 DUPLEX BC - PERSPECTIVE



6 DUPLEX BC - SOUTH ELEVATION  
1/8" = 1'-0"



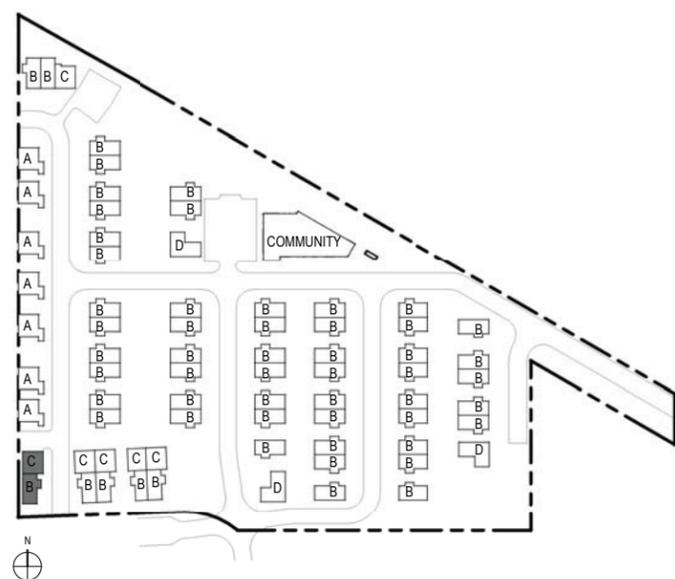
5 DUPLEX BC - EAST ELEVATION  
1/8" = 1'-0"



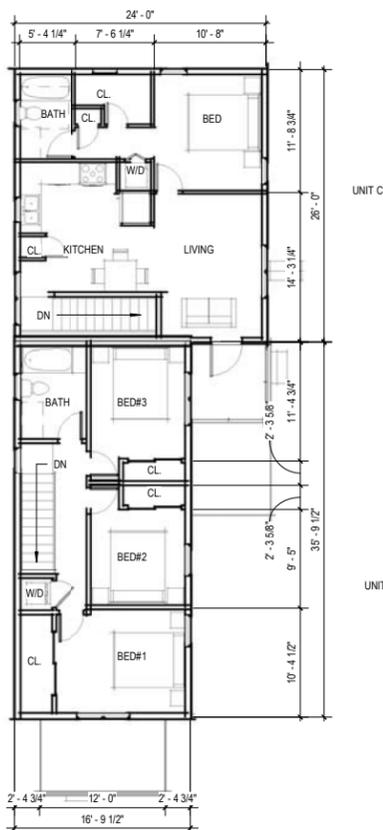
4 DUPLEX BC - WEST ELEVATION  
1/8" = 1'-0"



3 DUPLEX BC - NORTH ELEVATION  
1/8" = 1'-0"



DUPLEX BC - SITE PLAN KEY



2 DUPLEX BC - LEVEL 2  
1/8" = 1'-0"  
UNIT B AREA - 571  
UNIT C AREA - 578



1 DUPLEX BC - LEVEL 1  
1/8" = 1'-0"  
UNIT B AREA - 661 TOTAL AREA UNIT B - 1232  
UNIT C AREA - 631 TOTAL AREA UNIT C - 1209

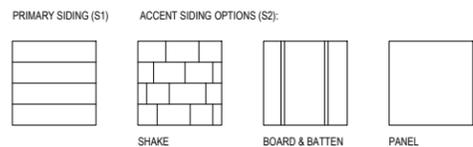
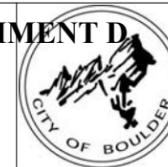
UNIT PLANS ARE SHOWN FOR REFERENCE ONLY

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DUPLEX BC - FLOOR PLANS & ELEVATIONS

SHEET NO.

A124



EXTERIOR SIDING LEGEND



6 TRIPLEX BBC - EAST ELEVATION  
1/8" = 1'-0"



5 TRIPLEX BBC - NORTH ELEVATION  
1/8" = 1'-0"



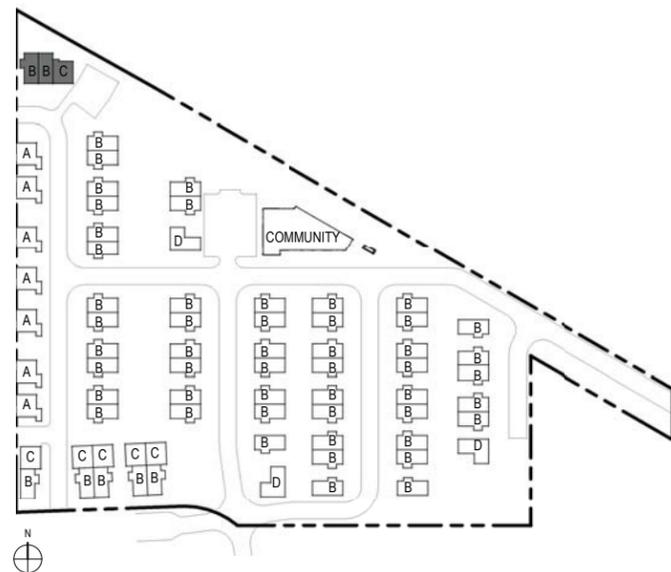
7 TRIPLEX BBC - PERSPECTIVE



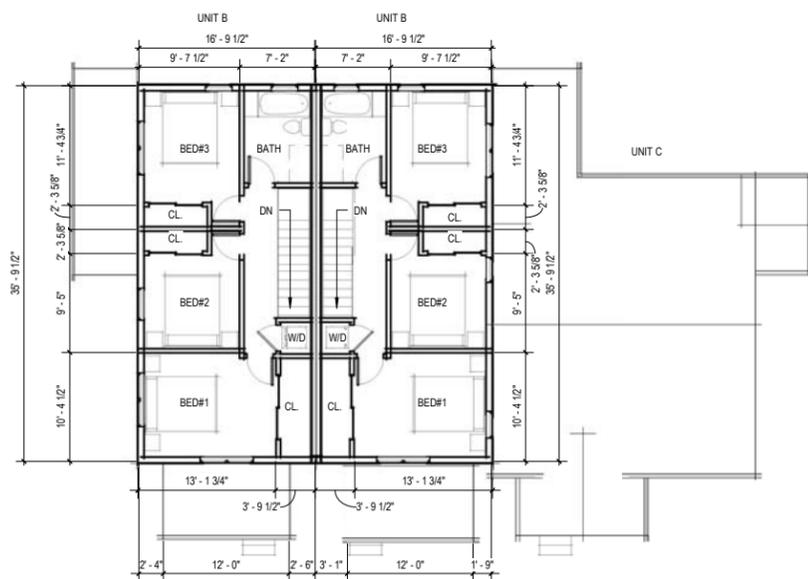
4 TRIPLEX BBC - SOUTH ELEVATION  
1/8" = 1'-0"



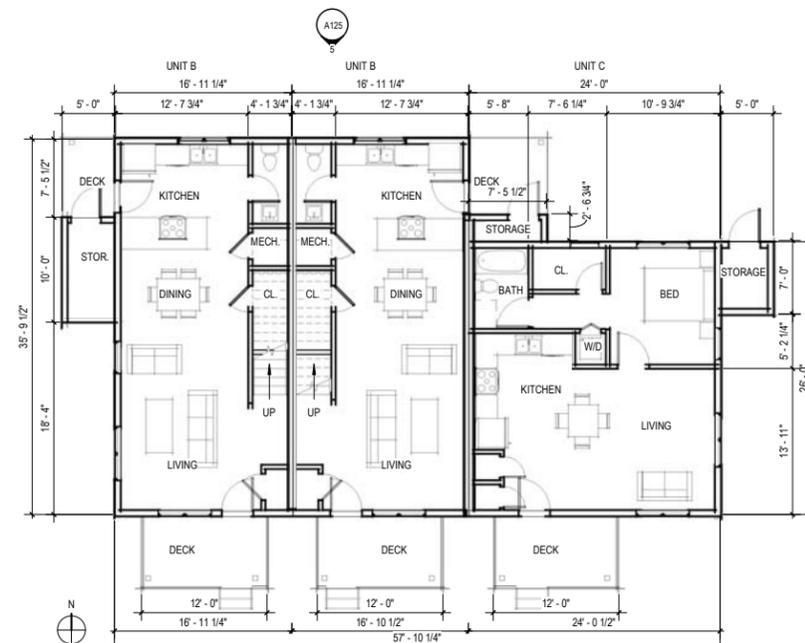
3 TRIPLEX BBC - WEST ELEVATION  
1/8" = 1'-0"



TRIPLEX BBC - SITE PLAN KEY



2 TRIPLEX BBC - LEVEL 2  
1/8" = 1'-0"  
UNIT B AREA - 571



1 TRIPLEX BBC - LEVEL 1  
1/8" = 1'-0"  
UNIT B AREA - 661    TOTAL AREA UNIT B - 1232  
UNIT C AREA - 652    TOTAL AREA UNIT C - 652

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PROGRAM (LUR2019-00015)  
BOULDER, COLORADO  
TRIPLEX BBC - FLOOR PLANS &  
ELEVATIONS

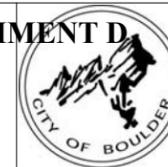
SHEET NO.

A125

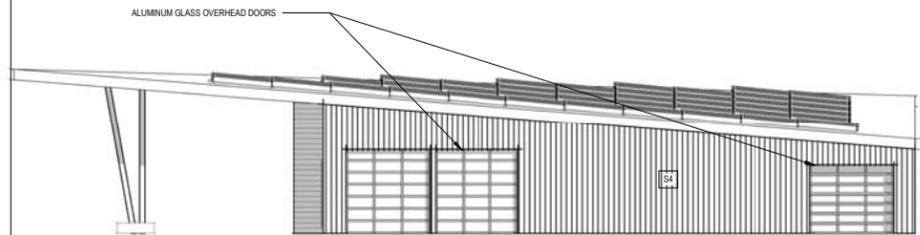
UNIT PLANS ARE SHOWN FOR  
REFERENCE ONLY

Agenda Item 5A

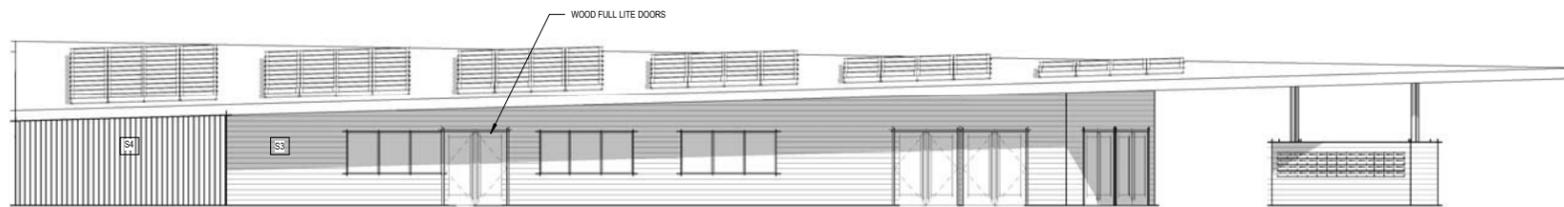
Page 153 of 125



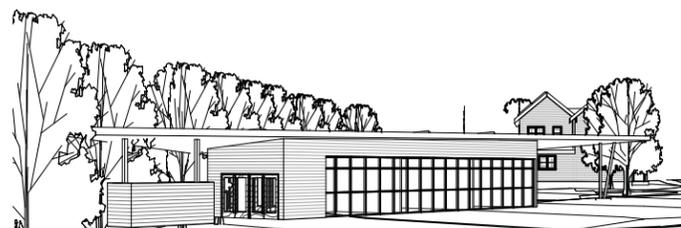
**A caddis**  
Architecture, planning, etc.



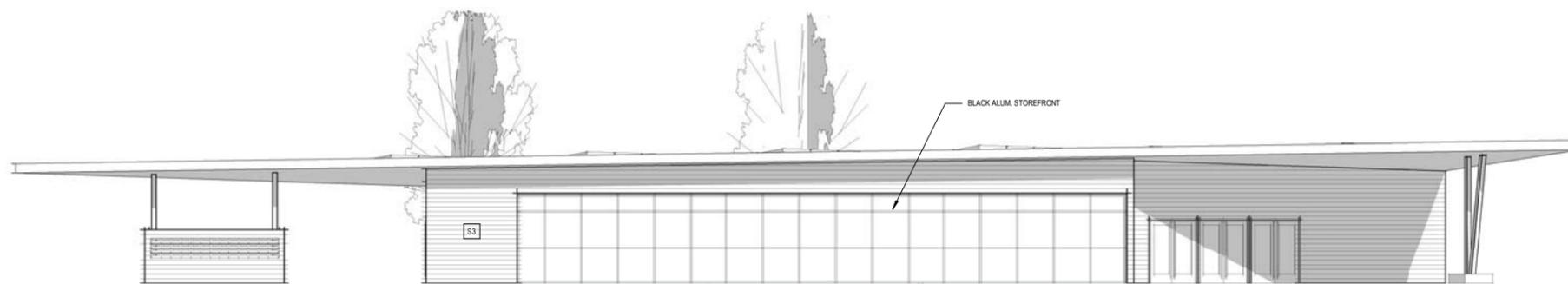
4 COMMUNITY BUILDING - WEST ELEVATION  
1/8" = 1'-0"



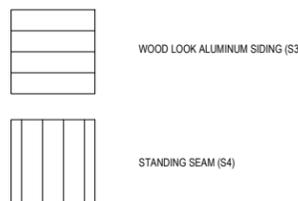
3 COMMUNITY BUILDING - SOUTH ELEVATION  
1/8" = 1'-0"



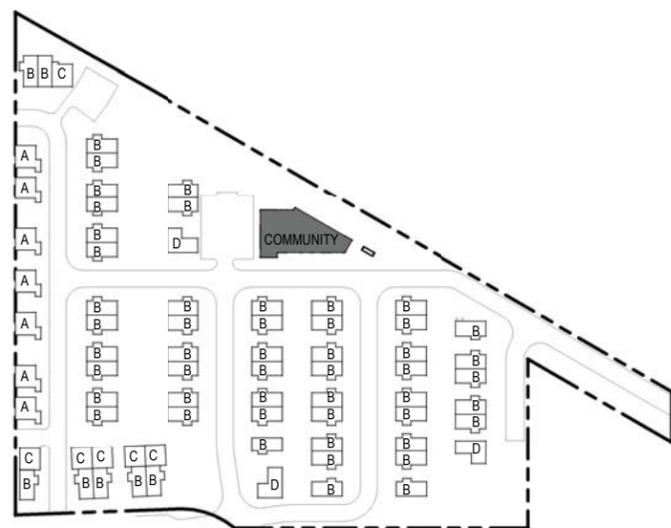
5 COMMUNITY BUILDING - PERSPECTIVE



2 COMMUNITY BUILDING - NORTHEAST ELEVATION  
1/8" = 1'-0"



COMMUNITY BUILDING EXTERIOR SIDING LEGEND



SITE PLAN KEY - COMMUNITY BUILDING

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DATE: 07/29/2019

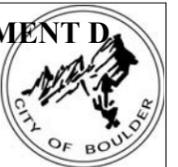
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COMMUNITY BUILDING - CONCEPTUAL FLOOR PLANS & ELEVATIONS

SHEET NO.

A126

1 COMMUNITY BUILDING FLOOR PLAN  
1/8" = 1'-0"



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 PROGRAM (LUR2019-00015)  
 BOULDER, COLORADO

3D RENDERINGS

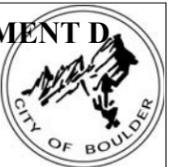
SHEET NO.

A127

1 STREET VIEW



1



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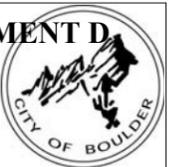
3D RENDERINGS

SHEET NO.

A128

1 STREET VIEW  
1" = 1'-0"





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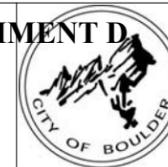
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 PROGRAM (LUR2019-00015)  
 BOULDER, COLORADO

3D RENDERINGS

1 COMMUNITY BUILDING





**caddis**  
Architecture, planning, etc.



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PROGRAM (LUR2019-00015)  
BOULDER, COLORADO

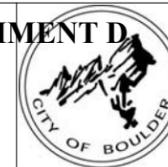
3D RENDERINGS

SHEET NO.

**A130**

1 AERIAL VIEW





Willhite

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PROGRAM (LUR2019-00015)  
BOULDER, COLORADO

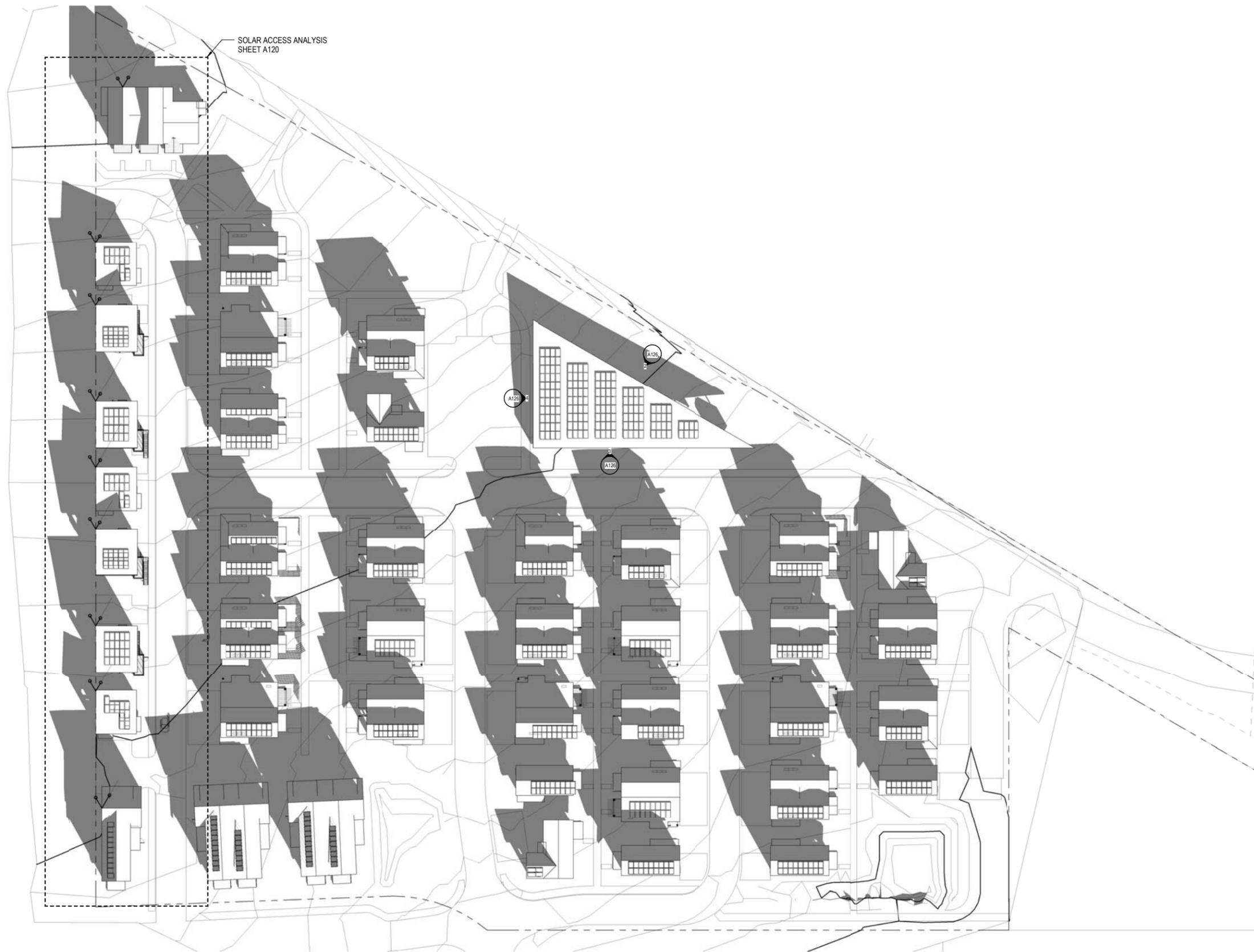
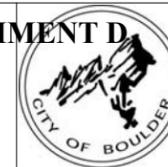
3D RENDERINGS

SHEET NO.

A134

1 COURTYARD





SOLAR ACCESS ANALYSIS SHEET A120

A126

A127

A128

1 SHADOW STUDY  
1/32" = 1'-0"

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JOB #: 2408.3c  
DATE: 07/29/2019  
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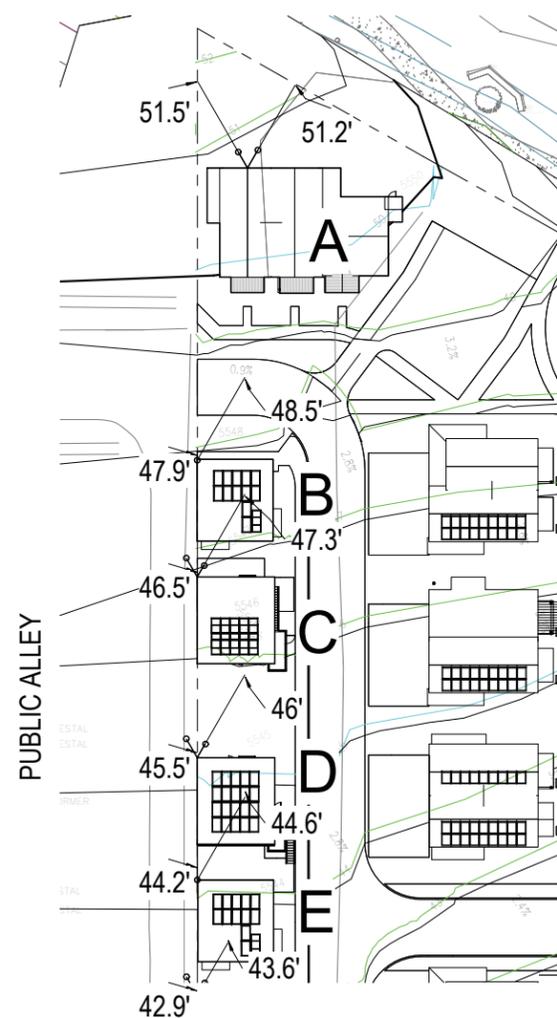
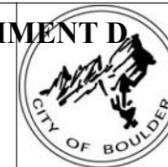
PONDEROSA COMMUNITY STABILIZATION PROGRAM (LUR2019-00015) BOULDER, COLORADO

SHADOW STUDY OVERALL

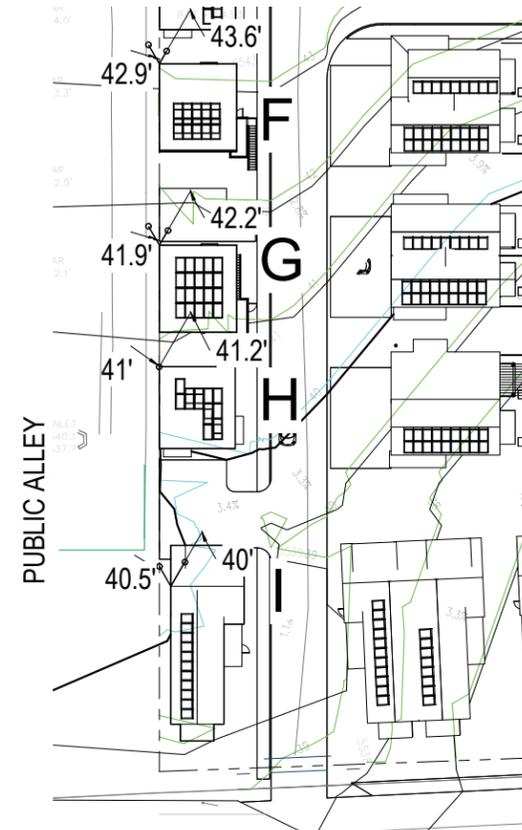
SHEET NO.

A119

NORTH



1 Solar Access Analysis 1  
1" = 30'-0"



2 Solar Shadow Analysis 2  
1" = 30'-0"

**SOLAR ANALYSIS WORKSHEET:**

Property Zone District: RM-2 Solar Fence Height: 25

Roof Element	Step 1		Step 2		Step 3		Step 4	
	Elevation of Roof Element (y)	Elevation of Grade at Property Line (x)		Relative Height of Roof Element (h)		Length of Shadow (L)		
		10:00 AM	2:00 PM	10:00 AM	2:00 PM	10:00 AM	2:00 PM	
Example	119.9	102.5	99.5	17.4	20.4	14.3	22.3	
A	79	51.5	51.2	27.5	27.8	6.6	7.4	
B	65.9	47.9	48.5	18.0	17.4	-	-	
C	74.1	46.5	47.3	27.6	26.8	6.9	4.8	
D	73.1	45.5	46	27.6	27.1	6.9	5.6	
E	62.2	44.2	44.6	18.0	17.6	-	-	
F	70.5	42.9	43.6	27.6	26.9	6.9	5.0	
G	69.5	41.9	42.2	27.6	27.3	6.9	6.1	
H	59	41	41.2	18.0	17.8	-	-	
I	68.8	40.5	40	28.3	28.8	8.7	10.1	
J						-	-	
K						-	-	

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JOB #: 2408.3c  
DATE: 07/29/2019  
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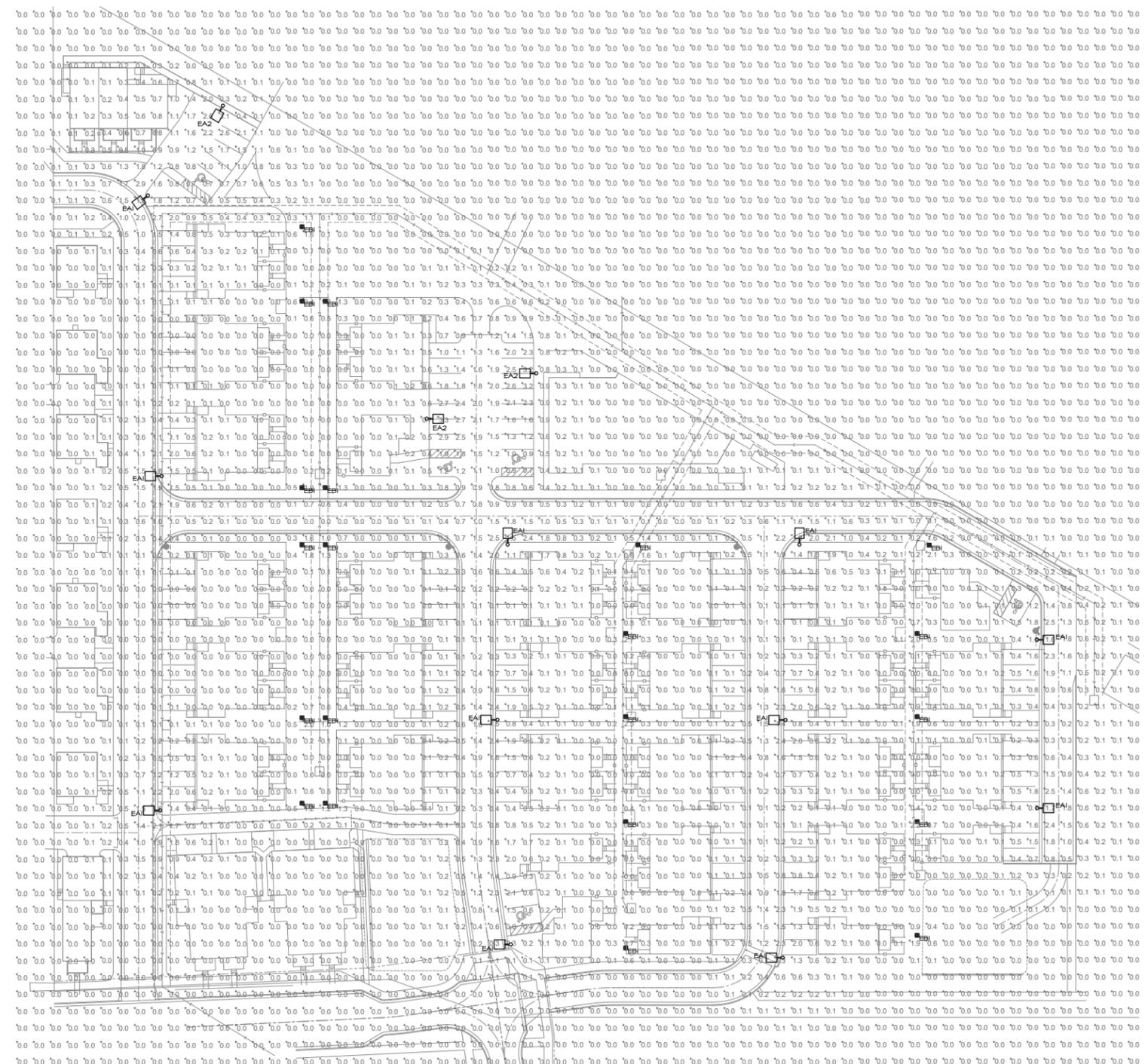
PONDEROSA COMMUNITY STABILIZATION PROGRAM (LUR2019-00015) BOULDER, COLORADO

SOLAR ACCESS ANALYSIS

SHEET NO.

A120



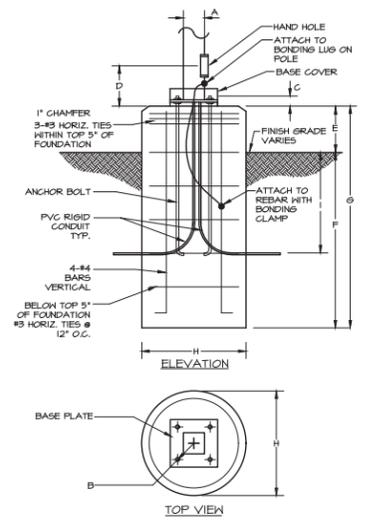


1 | SITE LIGHTING PHOTOMETRIC  
 E1.0 | SCALE: 1" = 30'



- GENERAL NOTES**
- ALL SITE LIGHTING SHALL BE CONTROLLED VIA PHOTOCELL TIMELOCK.
  - ALL LIGHT FIXTURES ARE FULL CUTOFF WITH SHIELDING TO PREVENT GLARE AND LIGHT TRESPASS UNLESS OTHERWISE NOTED.
  - THE PHOTOMETRIC GRID IS NO GREATER THAN TEN (10) FEET BY TEN (10) FEET AND PROVIDES LIGHTING LEVELS DIRECTLY UNDER THE FIXTURES.
  - ILLUMINANCE VALUES SHOWN ARE AT GRADE AND SHOULD BE CONSIDERED INITIAL USING A LIGHT LOSS FACTOR OF 1.0.
  - ILLUMINANCE VALUES SHOWN HERE REPRESENT LIGHTING FROM LUMINAIRE(S) SHOWN EXPLICITLY ON THIS DRAWING.

- LIGHTING FIXTURES**
- A LUMINAIRE TYPE, REFERENCING LUMINAIRE SCHEDULE, TYPICAL. ALL FIXTURES, SUBSCRIPT, IF SHOWN, REFERENCES HALL SWITCH.
  - B BOLLARD OR POST TOP LUMINAIRE
  - C EXTERIOR AREA LIGHT



POLE KEY	OVERALL HEIGHT	A	ANCHOR BOLT DATA	D	E	F	G	H	I
EAI	15'0"	4"	PER MANUFACTURER	3'0"	6'0"	1'0"	2'4"	3'6"	
EAI	2'0"	4"	PER MANUFACTURER	3'0"	6'0"	1'0"	2'4"	3'6"	

2 | POLE BASE DETAIL  
 E1.0 | SCALE: NTS

NO. | DATE | DESIGNED BY

DESIGNED BY: BDJ  
 DRAWN BY: BDJ  
 CHECKED BY: BJJ  
 JOB #: 2408.3c  
 DATE: 06/14/2019  
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PONDEROSA COMMUNITY STABILIZATION PROGRAM  
 BOULDER, COLORADO  
 SITE LIGHTING PHOTOMETRIC

AE DESIGN COMPLIANCE CHECK  
**CITY OF BOULDER ENERGY CONSERVATION CODE**  
 BOULDER PRESCRIPTIVE MEASURE CHECKLIST (CA05.5)

**SECTION 1: PROJECT INFORMATION**

PROJECT TYPE: NEW SITE LIGHTING (PARKING LOTS AND WALKWAYS)  
 PROJECT TITLE: PONDEROSA COMMUNITY STABILIZATION PROGRAM

CONSTRUCTION SITE: PONDEROSA NEIGHBORHOOD BOULDER, CO

DESIGNER/CONTRACTOR:  
 AE DESIGN, INC.  
 1900 WAZEE STREET  
 SUITE 205  
 DENVER, CO 80202  
 303-296-3034

**SECTION 2: EXTERIOR LIGHTING AND POWER CALCULATION**

AREA CATEGORY	B FLOOR AREA		C WATTS		D ALLOWED WATTS (B x C)
	FT <sup>2</sup>	FT <sup>2</sup>	WATTS	WATTS	
ALL AREAS ZONE 2					
PARKING AREAS AND DRIVES		7,544	0.04	302	
WALKWAYS <10 FEET WIDE (W/LINEAR FT)		1,144	0.5	572	
TOTAL PROPOSED WATTS =					874

**SECTION 3: EXTERIOR LIGHTING FIXTURE SCHEDULE**

FIXTURE ID	DESCRIPTION / LAMP / WATTAGE PER LAMP / DRIVER	B LAMPS / # OF FIXTURE		D E FIXTURE WATTAGE
		WATTAGE	WATTAGE	
LED-1 EA2	PARKING LOT POLE	1	3	60 180
LED-3 EB1	BOLLARD	1	21	8 168
TOTAL PROPOSED WATTS = 448				

**SECTION 4: REQUIREMENTS CHECKLIST**

EXTERIOR LIGHTING PASSES: DESIGN IS 8% BETTER THAN CODE.

LIGHTING WATTAGE:  
 1. TOTAL PROPOSED WATTS MUST BE LESS THAN OR EQUAL TO TOTAL ALLOWED WATTS.

ALLOWED WATTS	PROPOSED WATTS COMPLIES
874	448 YES

**Commercial (Lighting ONLY) Mandatory Measures Checklist**

Applies to: All New Buildings, Additions, Alterations and Repairs which require a permit from the City.

Project Address: Ponderosa Neighborhood, Boulder, CO Date: 6/14/2019  
 DIRECTIONS: Compliance with these Mandatory Measures is required whether the project is demonstrating compliance through the Performance or Prescriptive Path. Please complete this checklist and include it on an "Energy Conservation Code" sheet within the plans being submitted for permit application.

Code Section	Focus Area	Code Description	Plan Drawing or Reference # to demonstrate compliance (N/A if not applicable)	Submitter Notes (e.g. "N/A" Please explain why requirement does not apply or is not demonstrated on plans/specs)	Plan Examiner Notes (in office use)
CA05.2	Lighting Control	Controls shall meet the provisions of CA05.2.1 CA05.2.2 Manual lighting controls are required for interior spaces and must be located within the area served by the controls or be a remote switch that identifies the lights served and indicates their status.	N/A	PROJECT IS EXTERIOR LIGHTING ONLY.	
CA05.2.1.1	Light Reduction Controls	Each area that is required to have a manual control shall also allow the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern by at least 50 percent. Lighting reduction shall be achieved by one of the following or other approved method: 1) Controlling all lamps or luminaires; 2) Dual switching of alternate rows of luminaires, alternate luminaires or alternate lamps; 3) Switching the middle lamp luminaires independently of the outer lamps; or 4) Switching each luminaire on each lamp.	N/A	PROJECT IS EXTERIOR LIGHTING ONLY.	Field Verify
CA05.2.2.1	Automatic Lighting Control	Automatic time switch controls shall be installed to control lighting in all areas of the building. The automatic time switch control device shall include an override switching device that complies with the following: 1. The override switch shall be in a readily accessible location. 2. The override switch shall be located where the lights controlled by the switch are visible, or the switch shall provide a mechanism which announces the area controlled by the switch. 3. The override switch shall permit manual operation. 4. The override switch, when installed, shall permit the controlled lighting to remain on for a maximum of 2 hours, and 5. Any individual override switch shall control the lighting for a maximum area of 5,000 square feet.	N/A	PROJECT IS EXTERIOR LIGHTING ONLY.	Field Verify
CA05.2.2.2	Occupancy Sensor/Space Control	Occupancy sensors shall be installed in all classrooms, conference/meeting rooms, employee lunch and break rooms, private offices, reception, storage rooms and janitorial closets, and other spaces 300 square feet or less enclosed by floor-to-ceiling height partitions. These automatic control devices shall be installed to automatically turn off lights within 30 minutes of all occupants leaving the space, and shall either be manual on or shall be controlled to automatically turn the lighting on to not more than 50 percent power.	N/A	PROJECT IS EXTERIOR LIGHTING ONLY.	Field Verify

Code Section	Focus Area	Code Description	Plan Drawing or Reference # to demonstrate compliance (N/A if not applicable)	Submitter Notes (e.g. "N/A" Please explain why requirement does not apply or is not demonstrated on plans/specs)	Plan Examiner Notes (in office use)
CA05.2.2.3	Daylight Zone Control	Daylight zones shall be designed such that lights in the daylight zone are controlled independently of general area lighting and are controlled in accordance with CA05.2.2.3.1 or CA05.2.2.3.2.	N/A	PROJECT IS EXTERIOR LIGHTING ONLY.	Field Verify
CA05.2.2.3.1	Multi-level Control	Where multi-level controls are required, the general lighting in the daylight zone shall be separately controlled by at least one multi-level lighting control to reduce power to no greater than 35% of its rated power.	N/A	PROJECT IS EXTERIOR LIGHTING ONLY.	Field Verify
CA05.2.3	Additional Control	Display, accent lighting and Display case lighting shall be controlled by a dedicated control. Motor and motor operating units shall have a master control device at the main room entry. Supplemental task lighting shall have a control device integral to the luminaires or be controlled by a wall-mounted device. Lighting for non-vital applications, such as plant growth and food warming shall be controlled by a dedicated control. Lighting equipment for sale or demo shall be controlled by a dedicated control.	N/A	PROJECT IS EXTERIOR LIGHTING ONLY.	Field Verify
CA05.2.4	Exterior Lighting Control	Lighting not designed for shut-down operation shall be controlled by a control of photometer and time switch or an astronomical time switch. Shut-down lighting shall be controlled by an astronomical time switch or photometer.	E1 GENERAL NOTE #1	ALL EXTERIOR FIXTURES ARE CURRENTLY AUTOMATICALLY CONTROLLED.	Field Verify
CA05.3	Random Wiring	Fluorescent luminaires equipped with one, three or odd numbered lamp configurations, that are recessed within 10 ft center to center or that are pendant or surface mounted within 1 ft edge to edge must be tandem wired.	N/A	PROJECT IS EXTERIOR LIGHTING ONLY.	Field Verify
CA05.4	Exit Signs	Internally illuminated exit signs shall not exceed 5 W per sign.	N/A	PROJECT IS EXTERIOR LIGHTING ONLY.	Field Verify
CA05.6.1	Exterior Building Ground Lighting	All exterior building ground luminaires that operate at greater than 100 watts shall contain lamps having a minimum efficacy of 60 lumens per watt unless the luminaire is controlled by a motion sensor or qualifies for one of the exceptions under Section CA05.6.2.	E2 LIGHTING FIXTURE SCHEDULE	ALL FIXTURES ARE LED TYPE, NO FIXTURES EXCEED 100W.	Field Verify
CA05.6.2	Exterior Building Lighting Power	Total exterior lighting power allowance for all exterior applications is the sum of the base site allowance plus the individual allowances for areas that are to be illuminated per Table CA05.6.2.1. Tradeoffs are allowed only among exterior lighting applications listed in the Table.	E2.0 CITY OF BOULDER ENERGY CONSERVATION CODE	REFER TO CORRECT FOR CALCULATIONS AND ZONE 2 LIGHTING ALLOWANCES	Field Verify

SYSTEM COMPONENT	Code Section	Code Description	Plan Drawing or Reference # to demonstrate compliance (N/A if not applicable)	Submitter Notes (e.g. "N/A" Please explain why requirement does not apply or is not demonstrated on plans/specs)	Plan Examiner Notes (in office use)
CA05.7	Lighting System Functional Testing	Controls for automatic lighting systems shall comply with Section CA05.7.	E1.0 GENERAL NOTE #4	ALL EXTERIOR FIXTURES ARE CURRENTLY AUTOMATICALLY CONTROLLED.	Field Verify

AE DESIGN COMPLIANCE CHECK

**SECTION 5: COMPLIANCE STATEMENT**

COMPLIANCE STATEMENT: THE PROPOSED LIGHTING DESIGN REPRESENTED IN THIS DOCUMENT IS CONSISTENT WITH THE BUILDING PLANS, SPECIFICATIONS AND OTHER CALCULATIONS SUBMITTED WITH THIS PERMIT APPLICATION. THE PROPOSED LIGHTING SYSTEM HAS BEEN DESIGNED TO MEET CODE REQUIREMENTS.

Brian Johnson - Project Designer  
 NAME - TITLE SIGNATURE DATE

TYPE	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	VOLTAGE	LAMP TYPE	INITIAL LUMENS	CR	MAX WATTS	LOCATION INFORMATION	IESNA CATEGORY CLASS	LLF	NOTES
EA1	REFLECTOR SCALE POLE MOUNTED FIXTURE LOW PROFILE DESIGN TYPE II	GARDCO BY @ignify	PPT140L-180-44-62-19-3-INV-8K	INV	52	LED	4825	10	52	GROUND SURFACE	1.0	1.2
EA2	POLE MOUNTED FULL CUTOFF FIXTURE HOUSE SIDE SHIELD TYPE IV	GARDCO BY @ignify	P26-40L-400-114-62-AR-4-INV-8K	INV	60	LED	1648	10	60	GROUND SURFACE	1.0	1.2
EB1	2" BOLLARD 4" DIAMETER 2"0 DEGREE BEAM DISTRIBUTION CUSTOM DRIVE CURRENT FOR MAX OUTPUT OF 250 INITIAL LUMENS	RAB	BLR26-S-K	INV	1	MAX	3000K	MAX	MAX	SURFACE	0.4	1

ABBREVIATIONS: BOF - BOTTOM OF FIXTURE, NFD - NECESSARY FIXTURE DEPTH, OFH - OVERALL FIXTURE HEIGHT, AFFH/FH - ABOVE FINISHED FLOOR (GRADE) FPD - HALL FIXTURE DEPTH

GENERAL NOTES:  
 A. ALL FLUORESCENT AND LED LAMPS TO BE 3000K COLOR TEMPERATURE AND A MINIMUM OF 82CRI, UNLESS NOTED OTHERWISE.  
 B. ALL REFLECTOR LAMPS TO BE PROVIDED AS WIDE FLOOD DISTRIBUTION UNLESS NOTED OTHERWISE.  
 C. ALL FLUORESCENT LUMINAIRES THAT UTILIZE DOUBLE-ENDED LAMPS AND CONTAIN BALLASTS THAT CAN BE SERVICED IN PLACE SHALL HAVE A DISCONNECTING MEANS AS DESCRIBED IN NEC 410.30(B).  
 D. PROVIDE LUMINAIRES SHOWN AS SHADED WITH EMERGENCY BATTERY BALLASTS, UNLESS OTHERWISE NOTED. EMERGENCY LUMINAIRES SHALL SENSE UN-SWITCHED POWER TO THE SPACE AND OPERATE AUTOMATICALLY UPON LOSS OF NORMAL POWER. ALL SHADED LUMINAIRES WITH 2FT AND 4FT LAMPS SHALL HAVE ONE (1) 90 MINUTE RATED, TWO LAMP, 1000 LUMEN EMERGENCY BALLAST. ALL SHADED LUMINAIRES WITH COMPACT FLUORESCENT LAMPS SHALL HAVE A FACTORY INSTALLED 90 MINUTE EMERGENCY BALLAST. ALL EMERGENCY LUMINAIRES SHALL HAVE REMOTE TEST SWITCHES AND VISIBLE INDICATING LIGHTS. CONNECT THE EMERGENCY BATTERY BALLAST TO THE UN-SWITCHED LEG OF THE LIGHTING CIRCUIT INDICATED.

SPECIFIC NOTES:  
 1. ARCHITECT TO CONFIRM FINISH PRIOR TO ORDERING.  
 2. EC TO CONFIRM VOLTAGE.

AREA	AVERAGE (fc)	MAX (fc)	MIN (fc)	MAX (lm)	AVG (lm)
OVERALL SITE	0.2	3.3	0.0	---	---
SITE BOUNDARY	0.0	0.1	0.0	---	---
PRIMARY PARKING LOT	1.8	3.9	0.1	4.1	2.8
SECONDARY PARKING LOT	1.5	3.1	0.1	4.4	2.1
STREETS	0.6	2.5	0.0	---	---
BIWAYS	0.4	2.1	0.0	---	---

**GARDCO PureForm** by @ignify  
 PPT pole top with comfort optics

Gardco PureForm LED pole top features a sleek, low profile design. Comfort optics are designed to enhance visual comfort by reducing glare. Type 1, 2, 3, and 5 optical distributions are available with lumen output up to 9000 lumens. A full range of control options provides additional energy savings. Optional integral emergency battery backup is available for path-of-egress illumination.

Ordering guide example: PPT140L-180-44-62-19-3-INV-8K

Code	Manufacturer	Part Number	Description	Notes
PPT	Gardco	PPT140L-180-44-62-19-3-INV-8K	PPT pole top with comfort optics	
EA1	Gardco	PPT140L-180-44-62-19-3-INV-8K	REFLECTOR SCALE POLE MOUNTED FIXTURE LOW PROFILE DESIGN TYPE II	
EA2	Gardco	P26-40L-400-114-62-AR-4-INV-8K	POLE MOUNTED FULL CUTOFF FIXTURE HOUSE SIDE SHIELD TYPE IV	
EB1	RAB	BLR26-S-K	2" BOLLARD 4" DIAMETER 2"0 DEGREE BEAM DISTRIBUTION	

**GARDCO PureForm** by @ignify  
 P26 medium area light

Gardco PureForm LED area medium P26 features a sleek, low profile design and optimal performance. PureForm area medium is designed to achieve maximum pole spacing, with lumen output up to 28,000 lumens. Multiple distribution and shading options are available to achieve maximum control. A full range of control options provides additional energy savings.

Ordering guide example: P26-40L-400-114-62-AR-4-INV-8K

Code	Manufacturer	Part Number	Description	Notes
P26	Gardco	P26-40L-400-114-62-AR-4-INV-8K	P26 medium area light	
EA1	Gardco	PPT140L-180-44-62-19-3-INV-8K	REFLECTOR SCALE POLE MOUNTED FIXTURE LOW PROFILE DESIGN TYPE II	
EA2	Gardco	P26-40L-400-114-62-AR-4-INV-8K	POLE MOUNTED FULL CUTOFF FIXTURE HOUSE SIDE SHIELD TYPE IV	
EB1	RAB	BLR26-S-K	2" BOLLARD 4" DIAMETER 2"0 DEGREE BEAM DISTRIBUTION	

### LED BOLLARDS

- Patented base mount design for super-sturdy installation
- Available in 4 configurations to provide 360°, 270°, 180° & 90° lighting patterns
- Durable construction and vandal-resistant polycarbonate lens
- Clean, elegant design available in dome, round or square and bronze or white
- 100,000-Hour LED lifespan

New Dome Top - Now available with classic dome top design.

Four leveling screws provided for easy installation.

Emergency 90 minute backup system (QAW only)

**Bollard Dimensions & Weight**  
 Weight: Round & Square Bollards: 11.4 lbs.

**Architectural Sconce Dimensions & Weight**  
 Weight: Round Wall Mount: 15 lbs / Square Wall Mounts: 14 lbs

**Bollard Accessory (ordered separately)**  
 BOLBASE24 RETRO Retrofit base for mounting to existing installations.

NO. | DATE | DESIGNED | DRAWN

DESIGNED BY: BJJ  
 DRAWN BY: BJJ  
 CHECKED BY: BJJ  
 JOB #: 2408.3c  
 DATE: 06/14/2019  
 © JVA, INC.

PONDEROSA COMMUNITY STABILIZATION PROGRAM BOULDER, COLORADO  
 SITE LIGHTING PHOTOMETRIC SCHEDULES



# PONDEROSA DESIGN GUIDELINES

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City of Boulder

**PONDEROSA COMMUNITY  
STABILIZATION PROGRAM**

4475 N. Broadway | Boulder, CO

June 17, 2019  
Project #1722

Prepared by:



WWW.CADDISPC.COM | INFO@CADDISPC.COM



RENDERINGS BY WILLHITE | DOCUMENT DESIGN BY INREACH GRAPHICS

## INTRODUCTION

## INTRODUCTION

These Design Guidelines have been created to guide future development within the Ponderosa Community. Due to the long term approach to stabilize this existing neighborhood, consideration has been given to provide both flexibility and certainty, while also allowing for expressions of creativity and autonomy. It is our hope that future reviewers will take into consideration the community values and aesthetic desires in place at the time of each phase of construction and that these Design Guidelines will be used as a collaborative tool to allow the City to work with the residents.

Key components of the Design Guidelines include:

- Unit typologies and options
- City of Boulder livability standards
- Energy Efficiency measures
- Paint color, siding, trim, and roofing options
- New unit spacing and exterior improvements
- Carports, porches, and fencing options

Phase 1 includes the construction of units 1-12 along the western edge of the property as outlined in the phasing plan. These units will be built per the architectural drawings included in the Site Review for Ponderosa Community. The intent is to provide flexibility within the community. The city will reference these guidelines for future development review and building permit applications. There will not be an HOA or architectural review committee within the Ponderosa community.

## SITE PLANS

## Proposed Site Plan - Final Phase



# SITE PLANS

## Proposed Unit Type Key

- ● ● FLATS
- ● ● CARRIAGE HOMES
- ● ● INTERCHANGEABLE:  
1 & 2 Story Floorplans  
1, 2, or 3 Bedroom Options
- ◆ 2 BEDROOM OPTION ONLY





# NOTES & IMPROVEMENTS

## Design Guideline Notes

- City of Boulder shall review the individual buildings at the time of Building Permit Review for compliance with building code. The guidelines may be updated through a minor modification process.
- Colors by unit picked by homeowner.
- Exterior light fixture replacement must match original or similar per building official discretion.
- Windows to be white vinyl or fiberglass.

## Neighborhood Improvements

TYPE OF SPACE	EXISTING	PROPOSED
Total Living Space	51,134 SF	84,900 SF
Average Per/Unit	812 SF	1,163 SF
Average Yard Size	320 SF	300 SF
Open Space	118,014 SF	162,368 SF
Community Center	1100 SF	4150 SF

# AT-A-GLANCE

## City of Boulder Livability Standards Highlights



- Improved kitchen size
- Ample bedroom closets, linen closets, entry closets, exterior storage
- Laundry hookups in all units
- Air conditioning in all units
- Exceeding minimum room sizes
- Diverse mix of unit types reflecting resident needs

## Neighborhood Site Improvements



- More street trees and landscaping, improved canopy
- Upgraded water and sewer system
- Additional and improved car parking
- Increased open space
- Improved mail system
- Garden courtyards
- Improved accessibility
- Better connection to Four Mile Creek
- Paved drive lanes
- Improved vehicle and pedestrian safety
- Separate circulation systems for pedestrians & cars
- Neighborhood sidewalks
- Increased permeability and connectivity
- All new homes elevated out of the 100 year flood plain

## Energy Efficiency



- Photovoltaic rough in on each rooftop
- Photovoltaic solar garden at the Community Building
- Highly insulated building envelope
- Energy efficient appliances
- Low flow water fixtures
- LED lighting
- Efficient mini-split HVAC system
- Transition from gas to electric service
- Optimized solar orientation

## Neighborhood Amenities



- Community Building with meeting spaces and a shop
- Neighborhood pocket parks
- Bike parking and storage
- Community and private garden space
- Implementation of stormwater best practices
- Recycling, compost, and trash facilities
- Community WIFI

# DETAILS

## Suggested Paint Color Palette

SHERWIN WILLIAMS COLOR PALETTE



Owners shall select one color per unit. Any accent siding shall be painted the same color as primary siding.

## Siding/Trim

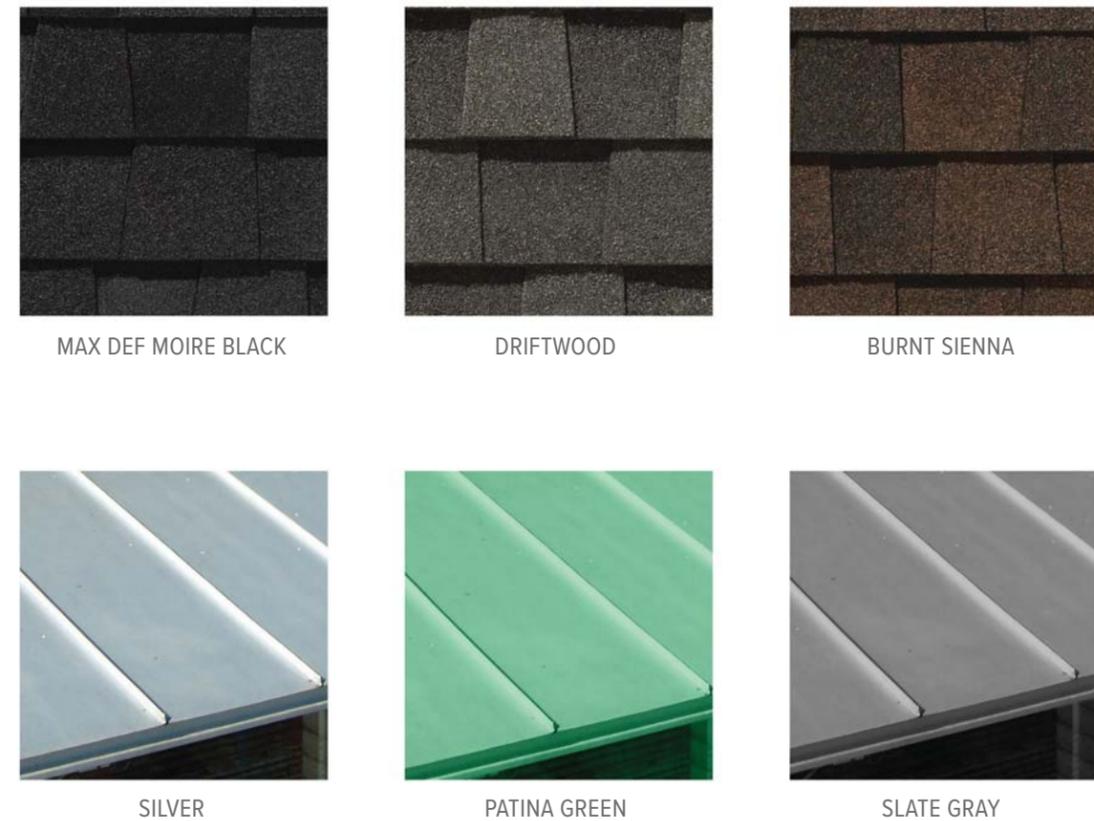
One primary siding pattern per building. Secondary accent siding options include shake, board & batten, and panel. Options chosen by owner/builder.

Siding and trim to be LP Smart Side smooth face or similar. Siding suggested width to be primarily 5 3/4" reveal with accents of 7 3/4", or 11 3/4". Gables may use shake, board and batten, or panel accents.

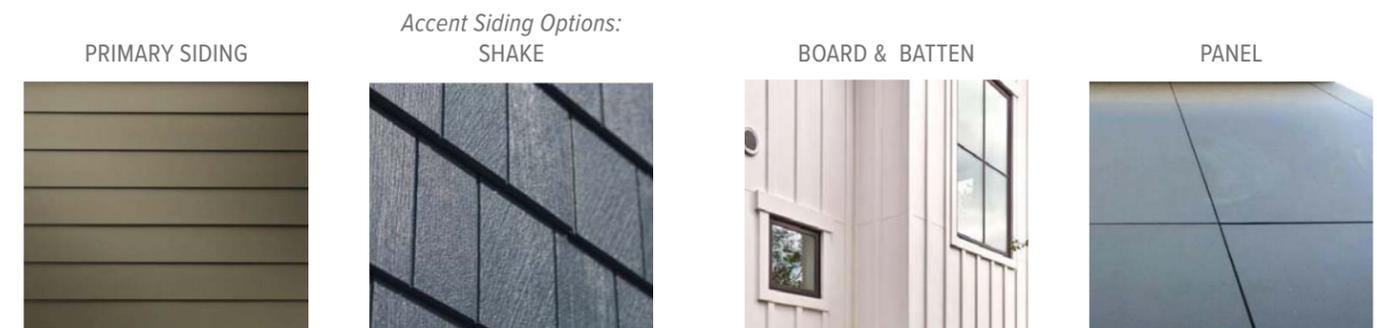
Cornerboards, rake, bellybands, and window trim shall be painted to match house color. Standard trim to be painted to match siding. Provide minimal trim (1x) at material transitions and paint to match siding.

## Suggested Roofing

ASPHALT - CERTAINTEED OR SIMILAR



Roofing to be metal standing seam or asphalt shingles. Metal accents on porch or side shed roofs is allowed with asphalt main roof. Chosen by owner/builder.



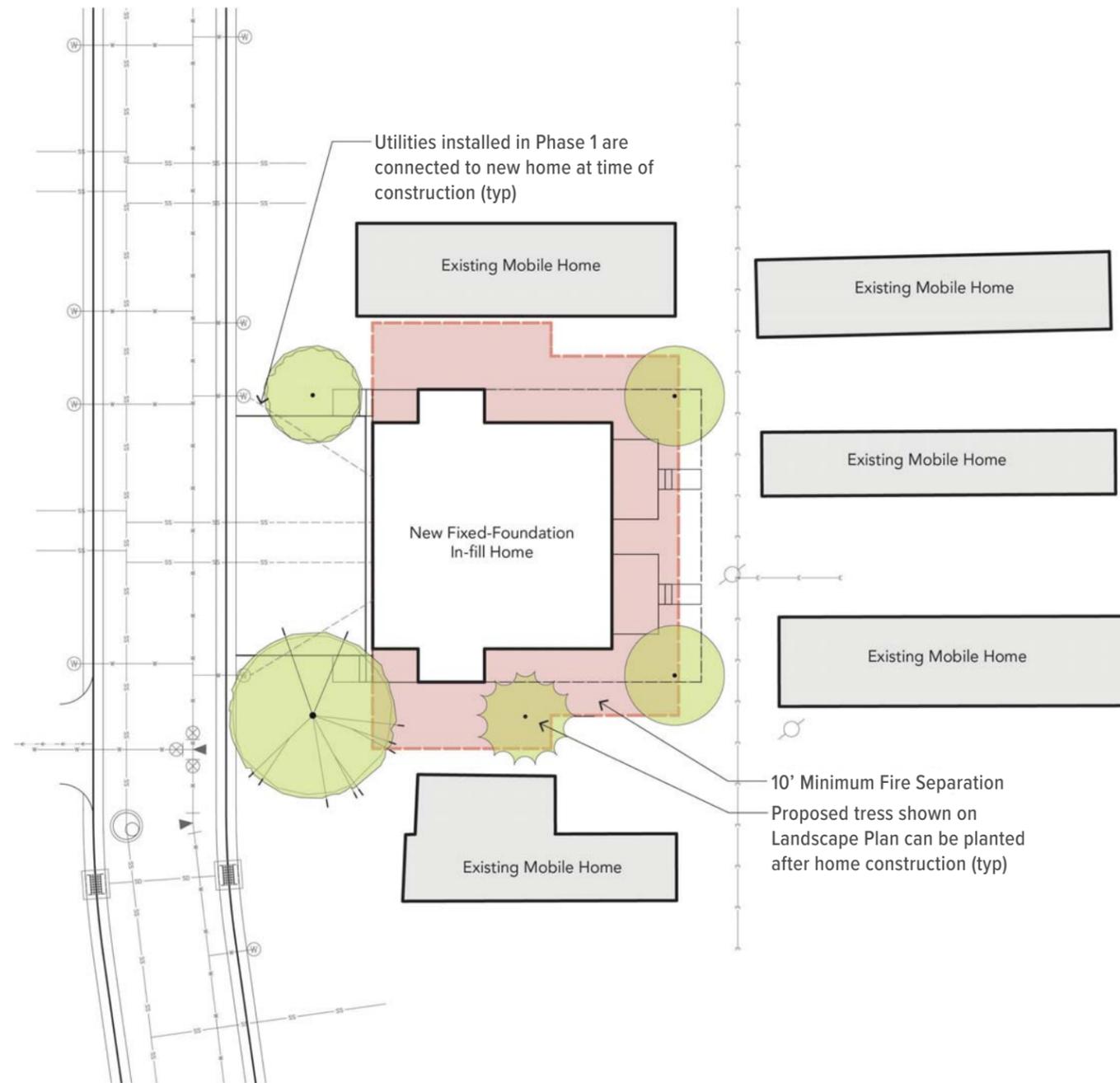
# DIAGRAMS

## 3D Duplex Front Yard Perspective

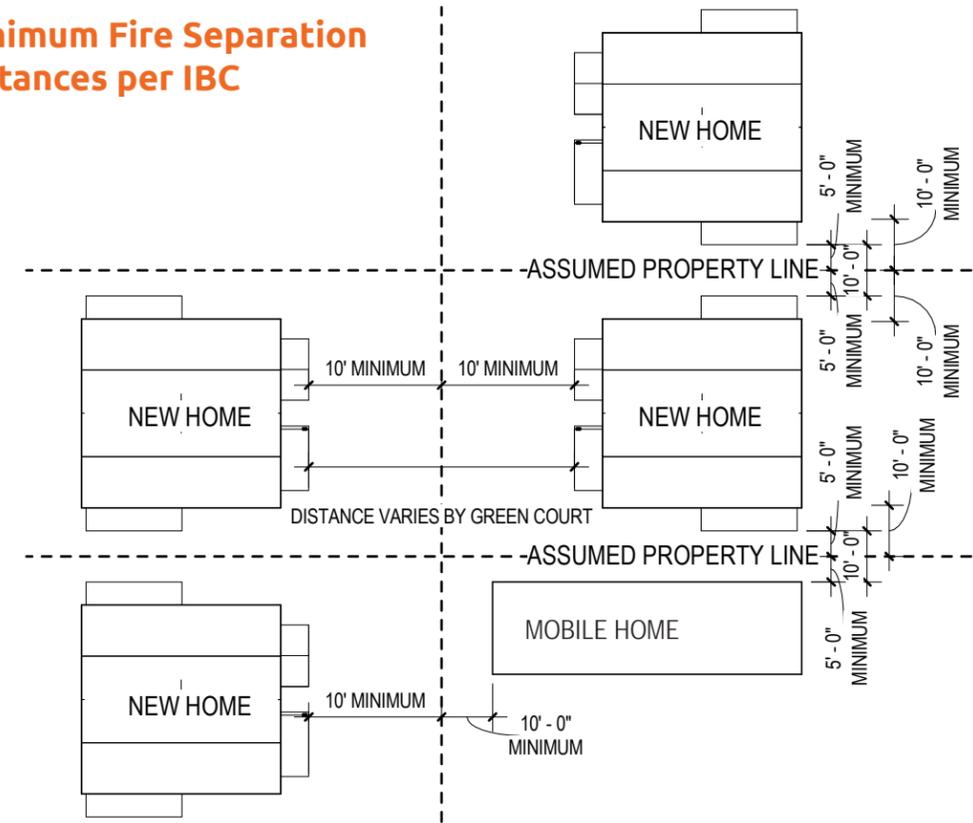


# DIAGRAMS

## Fire Separation - Infill Scenario



## Minimum Fire Separation Distances per IBC



## Parking, Entries & Storage



# OWNER OPTIONS

## For Customization of Exterior Features

### Carport

Carports are allowed where coordinated with civil utilities. Required back up distance of 24' & 9' width clearance per spot must be met.

### Fencing & Enclosed Yard

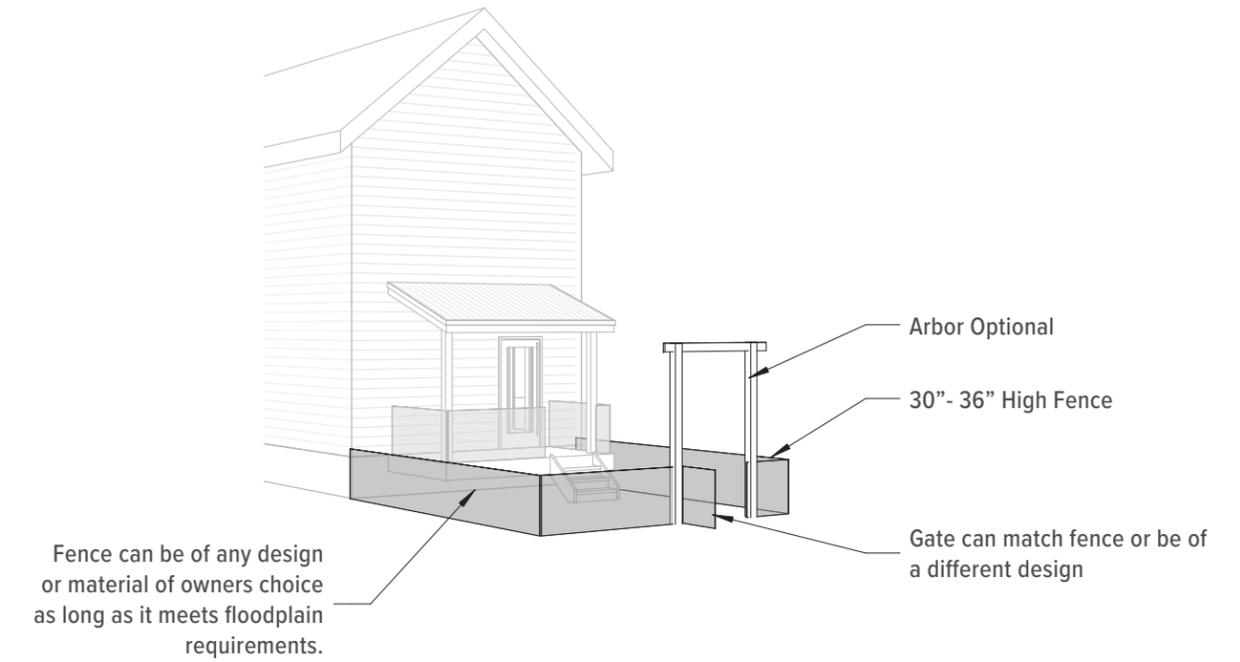
Fencing to be 30-36" in height and located in front yard spaces. See site plan for specific allowed locations. Obtain flood plain permit for fences as required.

Private yards to be landscaped and maintained. Trees must be coordinated with utility clearances. All plantings must comply with City of Boulder guidelines and use materials from approved plant lists.

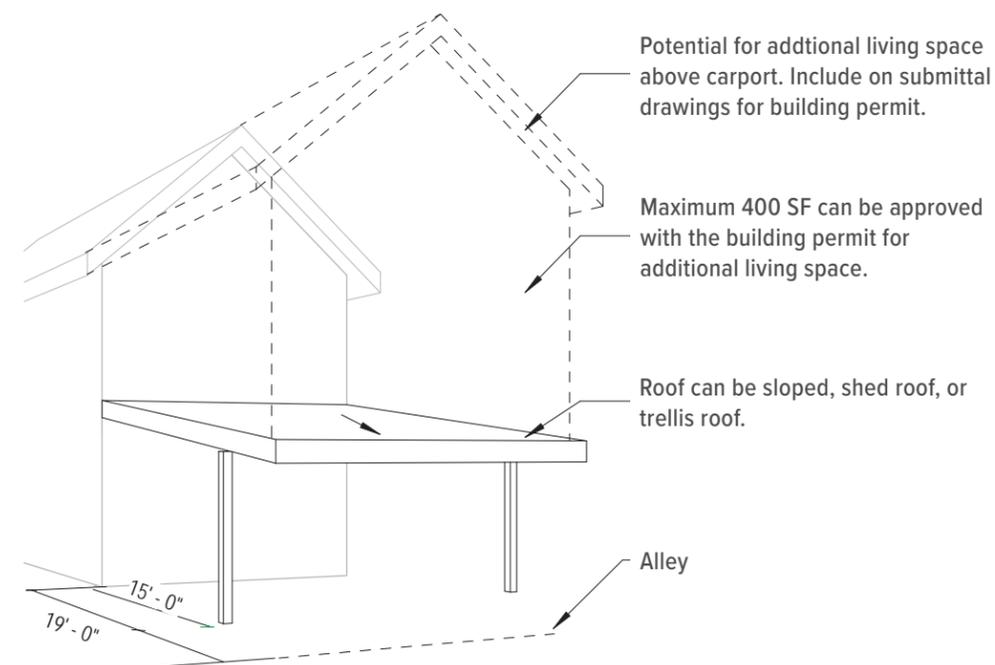
### Porch

Front and side porches to be shed, gable or trellis roof. Porches to be minimum 21" off finished grade except on accessible units where patio at grade is allowed or ramped wood. Wood posts to be squared or turned. Porch railings can be of any design and material chosen by owner, such as horizontal rails, vertical slats, wood or metal, or alternative material such as bike wheel rims.

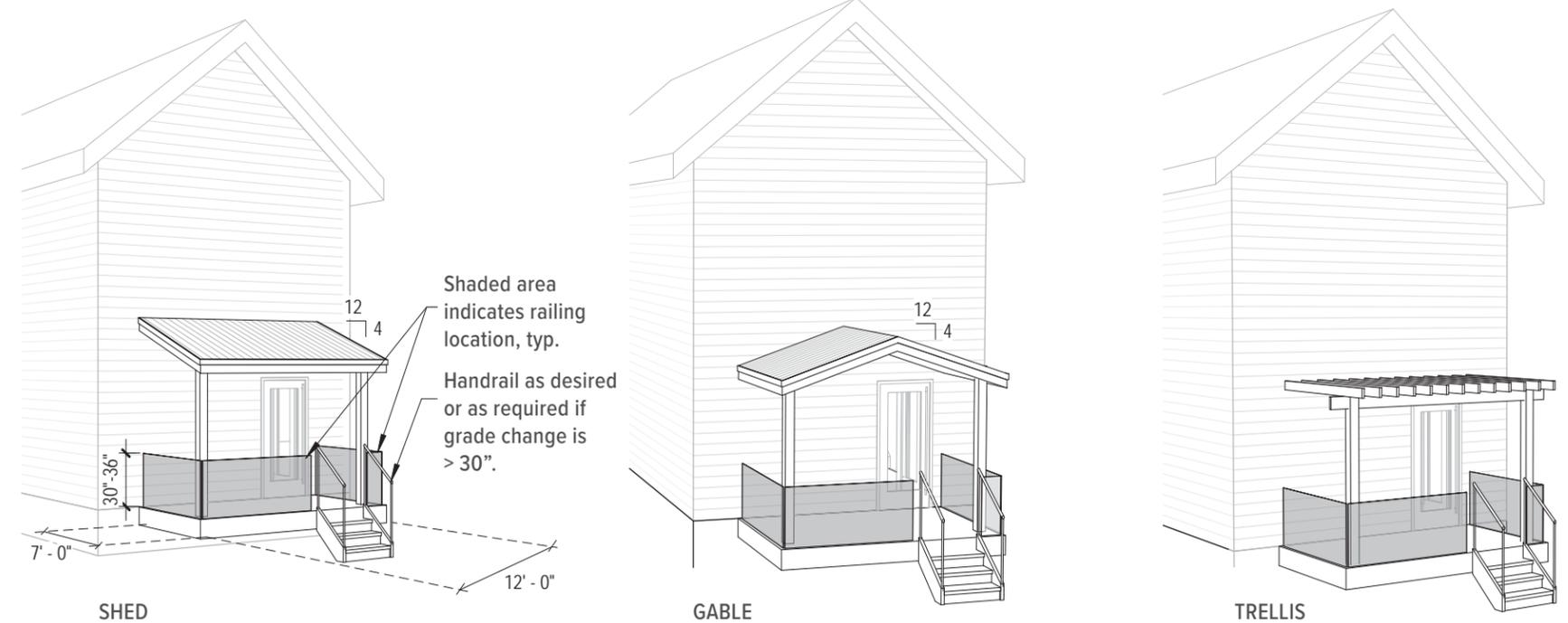
### FENCING & ENCLOSED YARD



### CARPORT



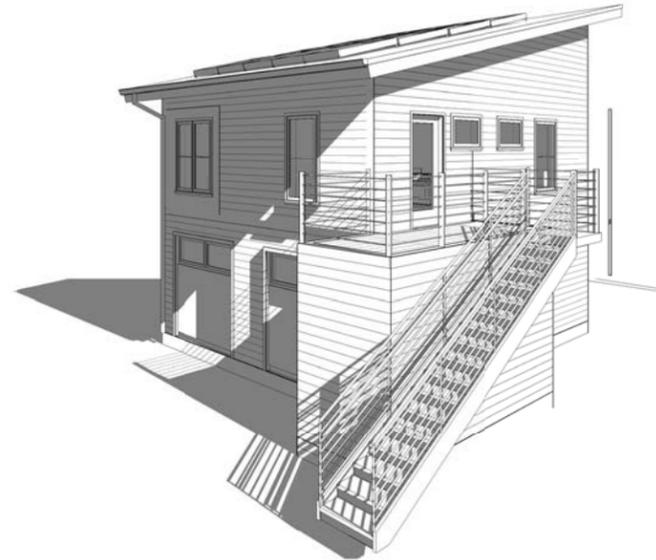
### PORCH



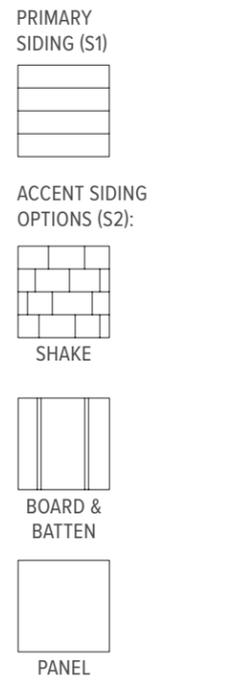


# HOUSING TYPES

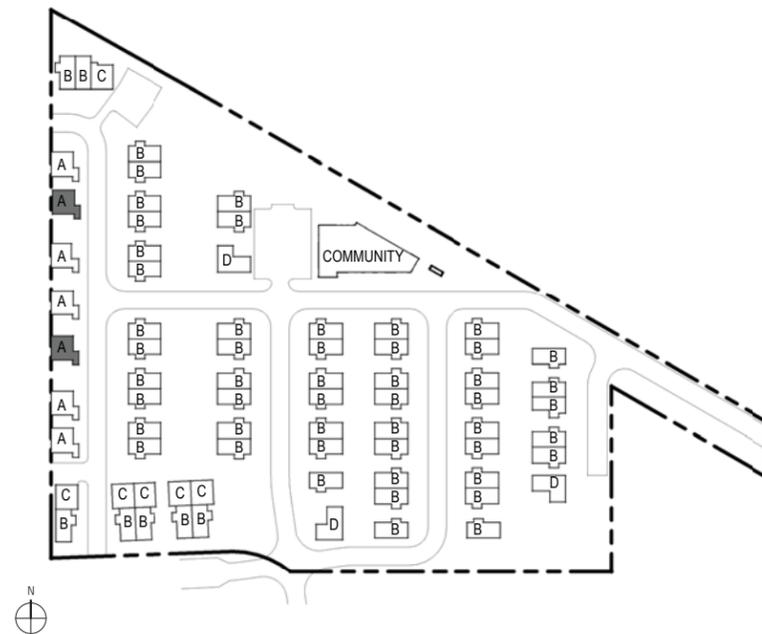
## Carriage House A



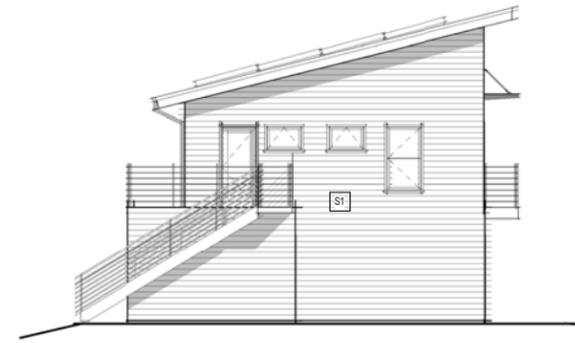
3 CARRIAGE HOUSE A - PERSPECTIVE



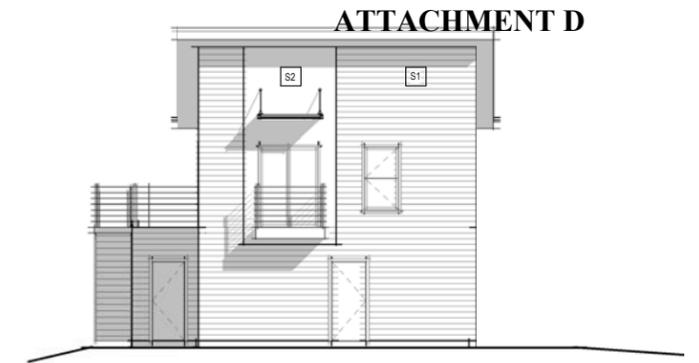
EXTERIOR SIDING LEGEND



CARRIAGE HOUSE A - SITE PLAN KEY



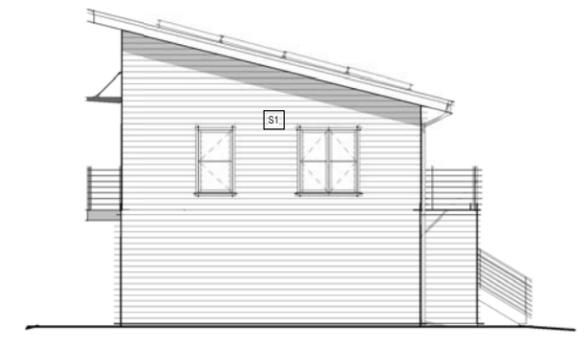
1 CARRIAGE HOUSE A - WEST ELEVATION  
ELEVATION 1/16" = 1'-0"



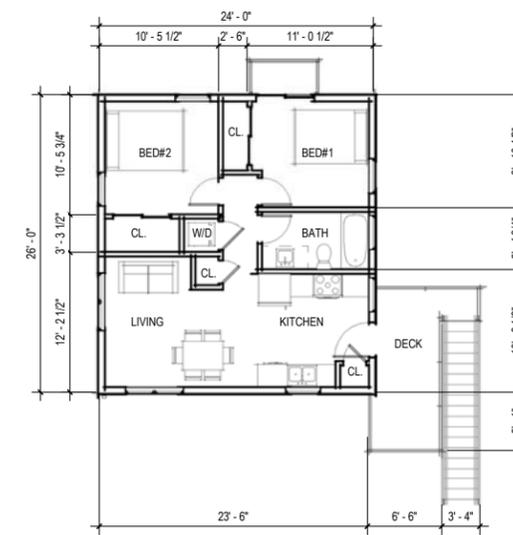
2 CARRIAGE HOUSE A - NORTH ELEVATION  
ELEVATION 1/16" = 1'-0"



4 CARRIAGE HOUSE A - SOUTH ELEVATION  
ELEVATION 1/16" = 1'-0"

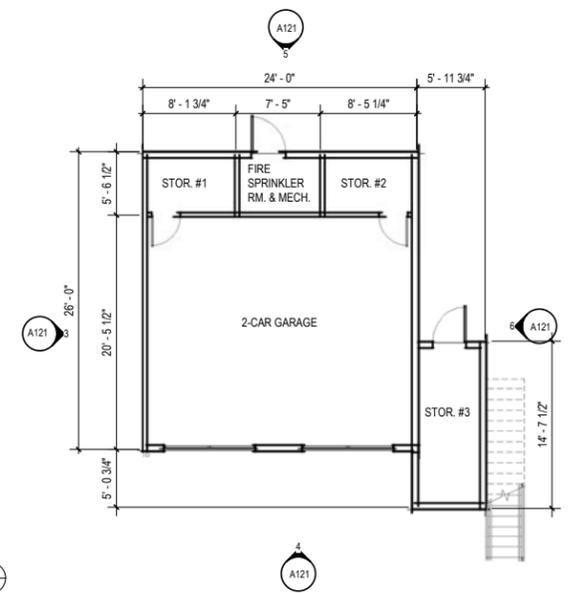


5 CARRIAGE HOUSE A - EAST ELEVATION  
ELEVATION 1/16" = 1'-0"



6 CARRIAGE HOUSE A - LEVEL 2  
ELEVATION 1/16" = 1'-0"

UNIT A AREA - 634 SF

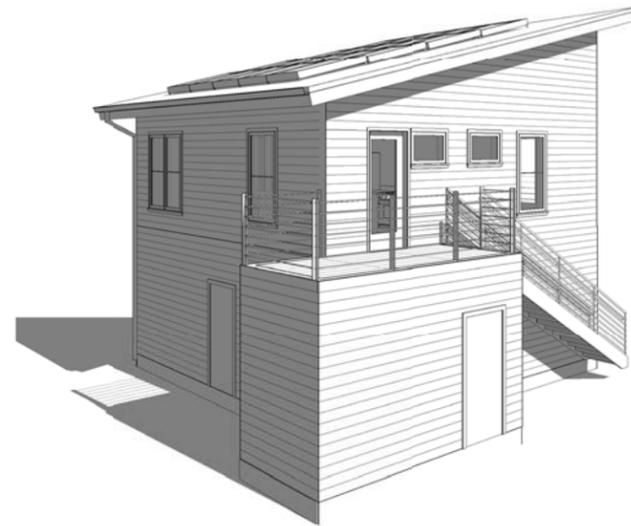


7 CARRIAGE HOUSE A - LEVEL 1  
ELEVATION 1/16" = 1'-0"

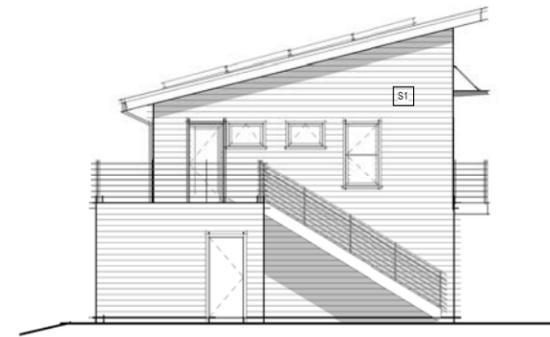
UNIT A GARAGE AREA - 725 SF  
TOTAL AREA - 1359 SF

# HOUSING TYPES

## Carriage House A2



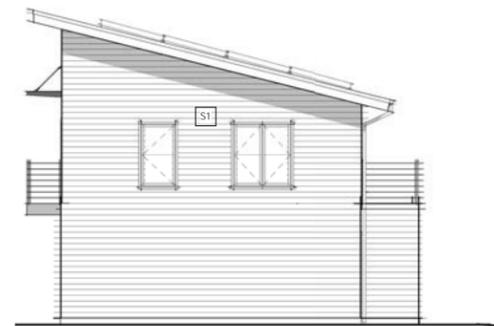
3 CARRIAGE HOUSE A2- PERSPECTIVE



1 CARRIAGE HOUSE A2- EAST ELEVATION  
ELEVATION 1/16" = 1'-0"



2 CARRIAGE HOUSE A2- NORTH ELEVATION  
ELEVATION 1/16" = 1'-0"

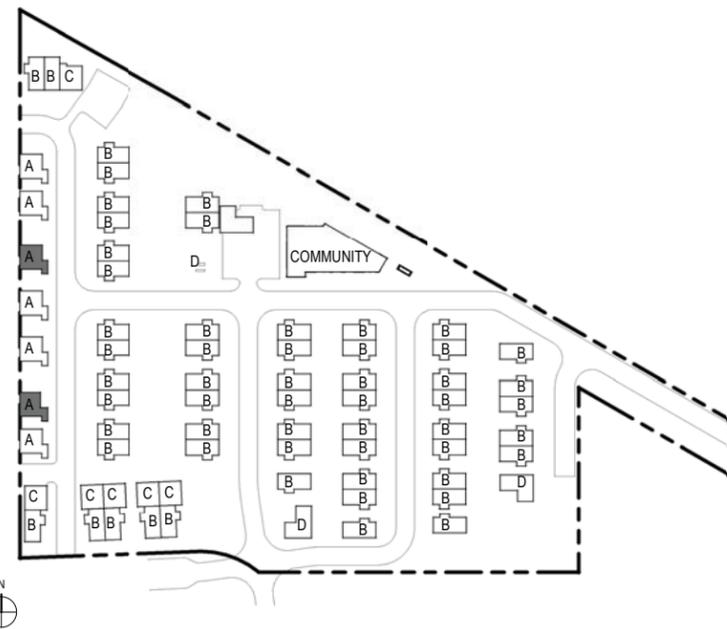


4 CARRIAGE HOUSE A2- WEST ELEVATION  
ELEVATION 1/16" = 1'-0"

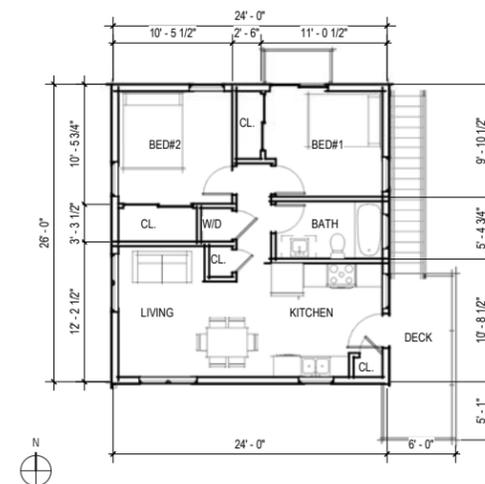


5 CARRIAGE HOUSE A2- SOUTH ELEVATION  
ELEVATION 1/16" = 1'-0"

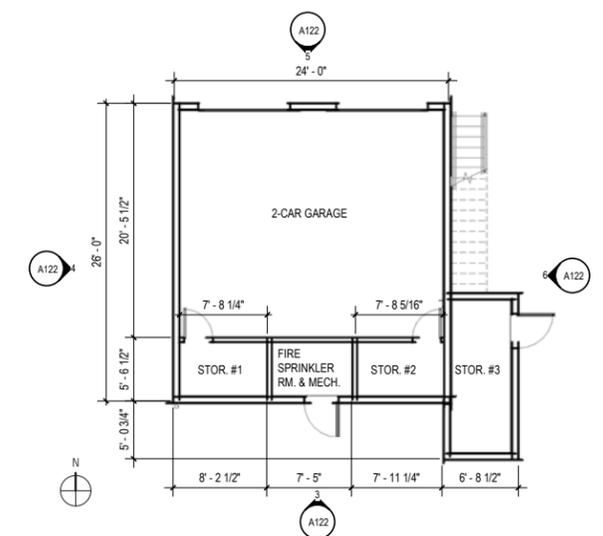
- PRIMARY SIDING (S1)
- 
- ACCENT SIDING OPTIONS (S2):
- SHAKE
  - BOARD & BATTEN
  - PANEL



CARRIAGE HOUSE A2- SITE PLAN KEY



6 CARRIAGE HOUSE A2 - LEVEL 2  
ELEVATION 1/16" = 1'-0"  
UNIT A2 AREA - 634



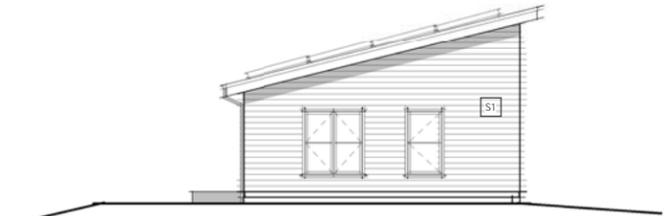
7 CARRIAGE HOUSE A2 - LEVEL 1  
ELEVATION 1/16" = 1'-0"  
UNIT A2 AREA - 725  
TOTAL AREA - 1359

# HOUSING TYPES

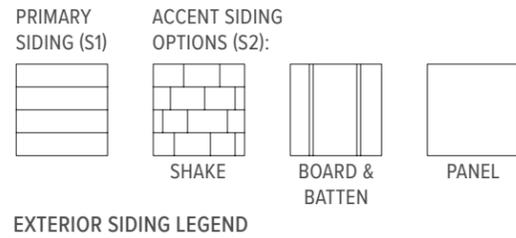
## Single Family A



1 SINGLE FAMILY A - WEST ELEVATION  
ELEVATION 1/16" = 1'-0"



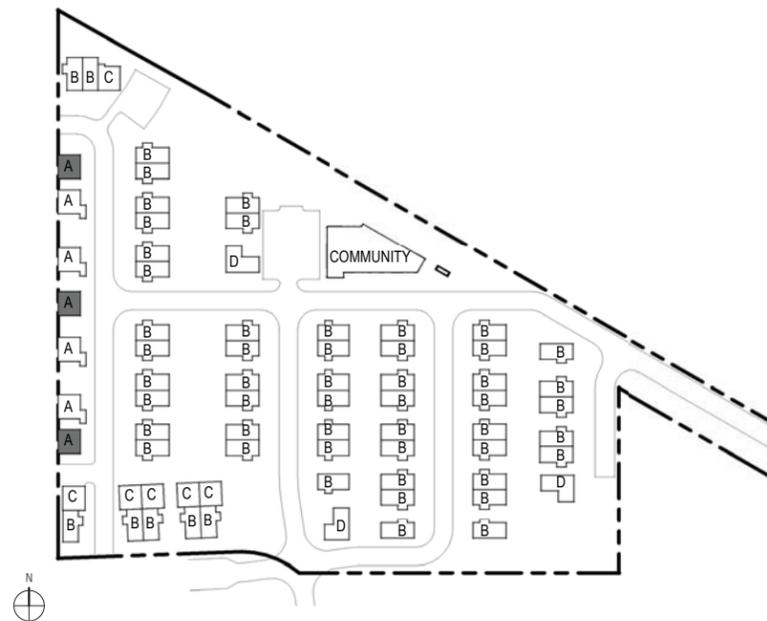
2 SINGLE FAMILY A - NORTH ELEVATION  
ELEVATION 1/16" = 1'-0"



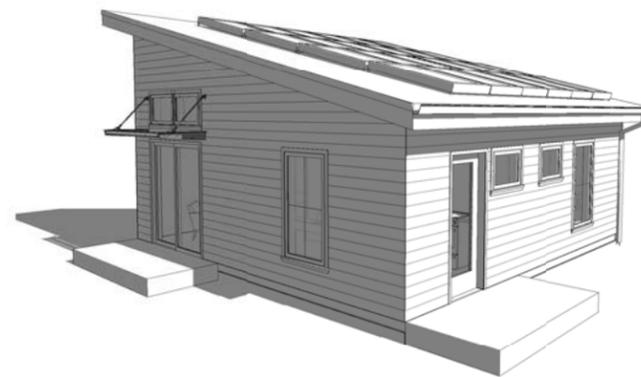
3 SINGLE FAMILY A - SOUTH ELEVATION  
ELEVATION 1/16" = 1'-0"



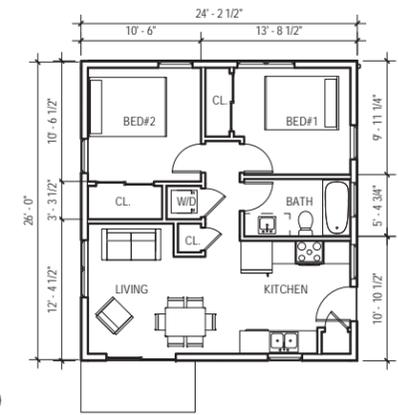
4 SINGLE FAMILY A - EAST ELEVATION  
ELEVATION 1/16" = 1'-0"



SINGLE FAMILY A - SITE PLAN KEY



5 SINGLE FAMILY A - PERSPECTIVE



6 SINGLE FAMILY A - LEVEL 1  
ELEVATION 1/16" = 1'-0"

# HOUSING TYPES

## Duplex BB



1 DUPLEX BB- PERSPECTIVE



2 DUPLEX BB- LEFT ELEVATION  
ELEVATION 1/16" = 1'-0"



3 DUPLEX BB- REAR ELEVATION  
ELEVATION 1/16" = 1'-0"



4 DUPLEX BB ALT - FRONT ELEVATION  
ELEVATION 1/16" = 1'-0"



5 DUPLEX BB- FRONT ELEVATION  
ELEVATION 1/16" = 1'-0"



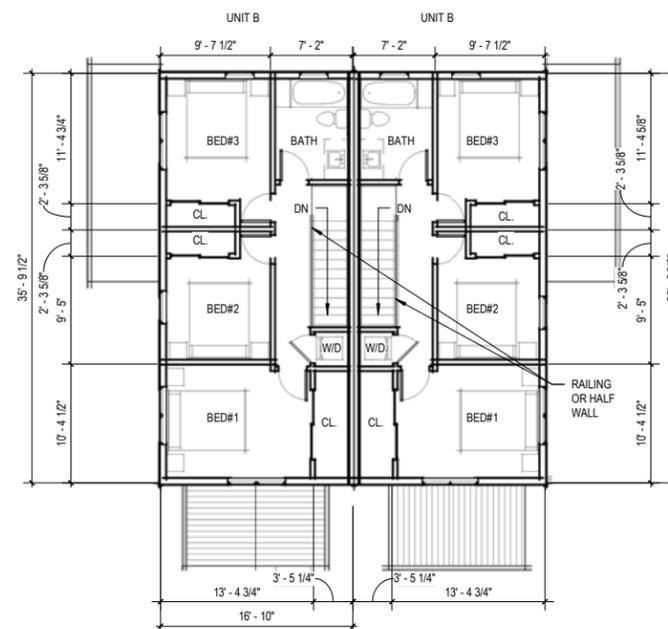
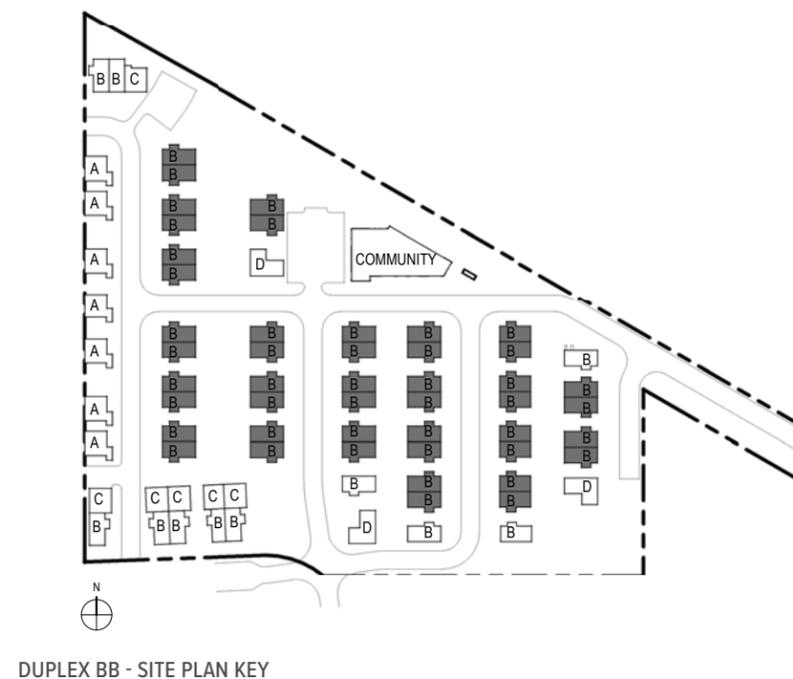
6 DUPLEX BB- RIGHT ELEVATION  
ELEVATION 1/16" = 1'-0"

PRIMARY SIDING (S1)

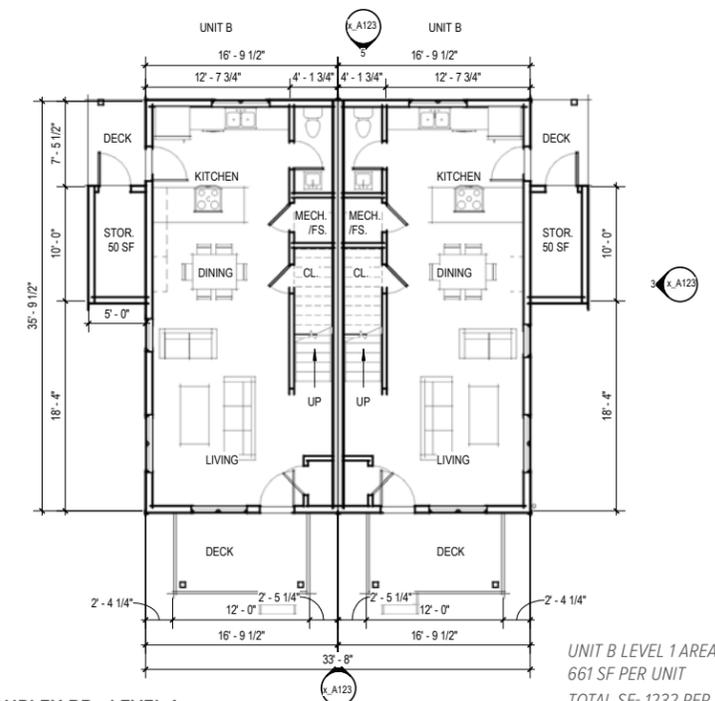
ACCENT SIDING OPTIONS (S2):

- SHAKE
- BOARD & BATTEN
- PANEL

EXTERIOR SIDING LEGEND



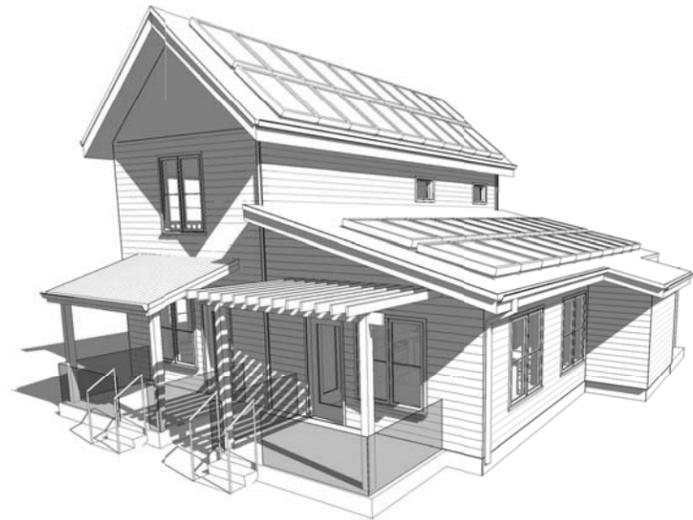
7 DUPLEX BB - LEVEL 2  
ELEVATION 1/16" = 1'-0"  
UNIT B LEVEL 2 AREA - 571 SF PER UNIT



8 DUPLEX BB - LEVEL 1  
ELEVATION 1/16" = 1'-0"

# HOUSING TYPES

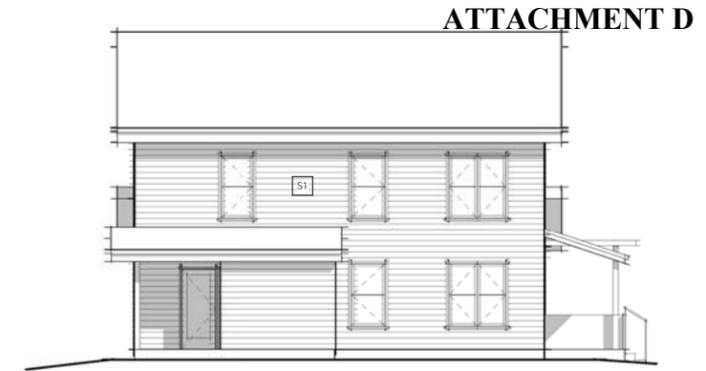
## Duplex BE



3 DUPLEX BE - PERSPECTIVE



1 DUPLEX BE - FRONT ELEVATION  
ELEVATION 1/16" = 1'-0"



2 DUPLEX BE - LEFT ELEVATION  
ELEVATION 1/16" = 1'-0"



4 DUPLEX BE - RIGHT ELEVATION  
ELEVATION 1/16" = 1'-0"

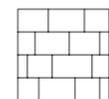


5 DUPLEX BE - REAR ELEVATION  
ELEVATION 1/16" = 1'-0"

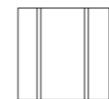
PRIMARY SIDING (S1)



ACCENT SIDING OPTIONS (S2):



SHAKE

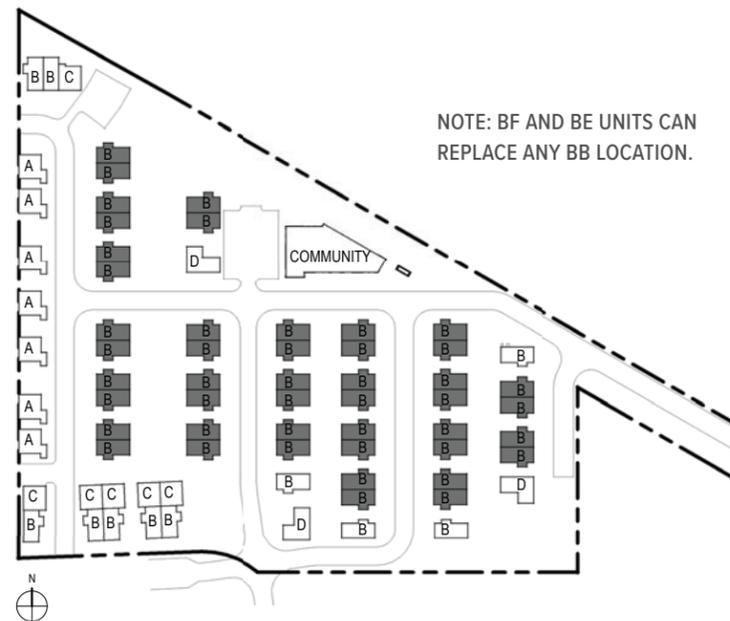


BOARD & BATTEN



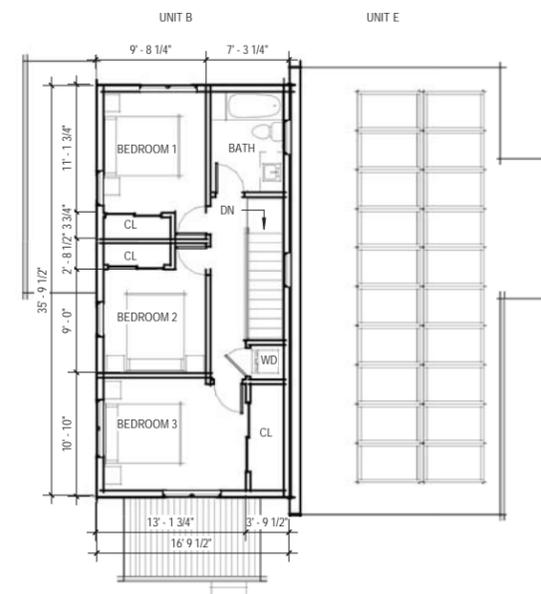
PANEL

EXTERIOR SIDING LEGEND



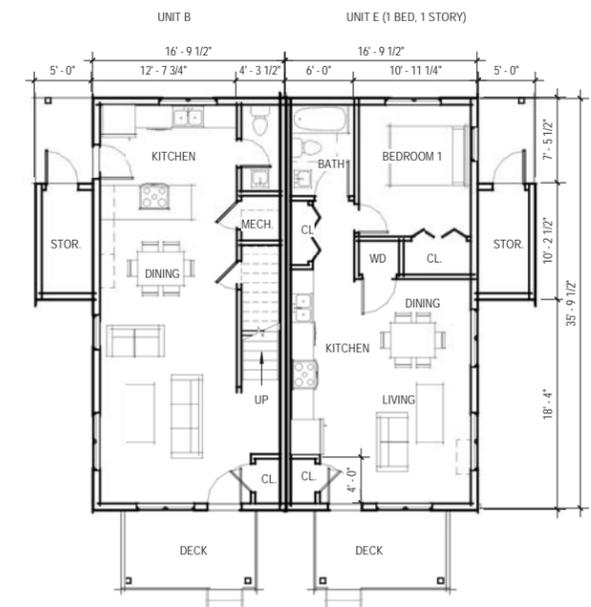
DUPLEX BE - SITE PLAN KEY

NOTE: BF AND BE UNITS CAN REPLACE ANY BB LOCATION.



6 DUPLEX BE - LEVEL 2  
ELEVATION 1/16" = 1'-0"

UNIT B AREA - 571 SF

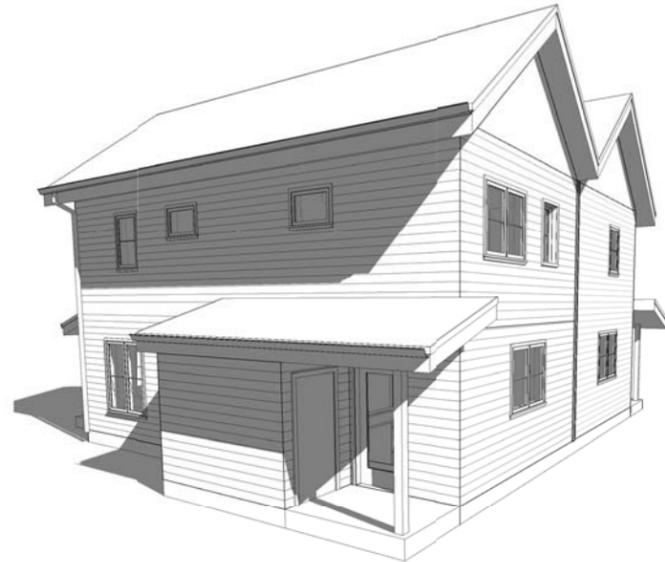


7 DUPLEX BE - LEVEL 1  
ELEVATION 1/16" = 1'-0"

UNIT B AREA - 661 SF  
TOTAL SF UNIT B - 1232; TOTAL SF UNIT E - 661 SF

# HOUSING TYPES

## Duplex BF



1 DUPLEX BF - FRONT ELEVATION  
ELEVATION 1/16" = 1'-0"



2 DUPLEX BF - LEFT ELEVATION  
ELEVATION 1/16" = 1'-0"



4 DUPLEX BF - RIGHT ELEVATION  
ELEVATION 1/16" = 1'-0"



5 DUPLEX BF - REAR ELEVATION  
ELEVATION 1/16" = 1'-0"

3 DUPLEX BF - PERSPECTIVE

PRIMARY SIDING (S1)

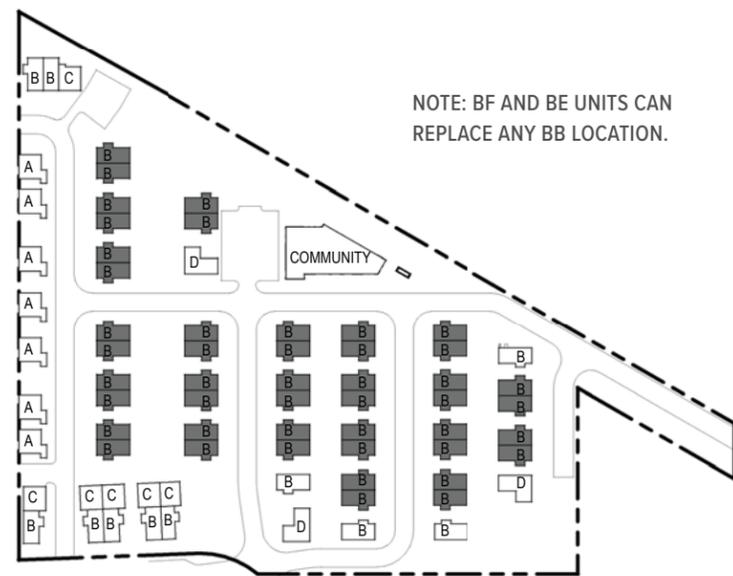
ACCENT SIDING OPTIONS (S2):

SHAKE

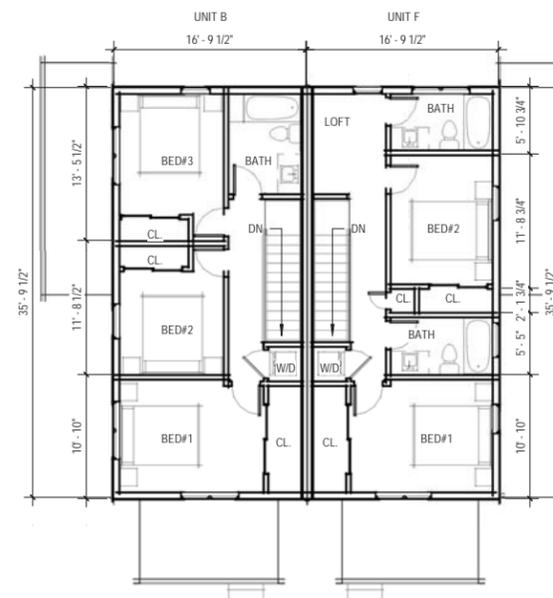
BOARD & BATTEN

PANEL

EXTERIOR SIDING LEGEND

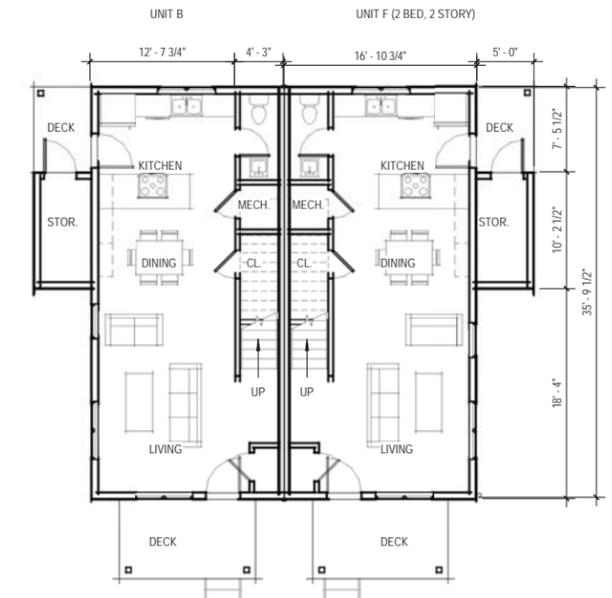


DUPLEX BF - SITE PLAN KEY



6 DUPLEX BF - LEVEL 2  
ELEVATION 1/16" = 1'-0"

UNIT B AREA - 571 SF  
UNIT F AREA - 468 SF

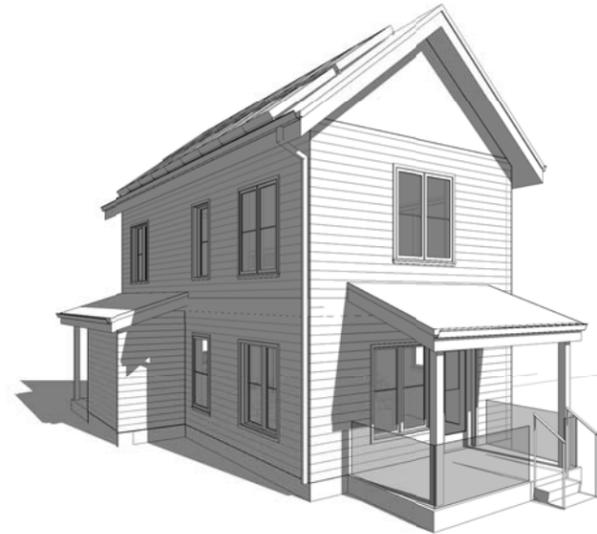


7 DUPLEX BF - LEVEL 1  
ELEVATION 1/16" = 1'-0"

UNIT B AREA - 661 SF; TOTAL SF UNIT B - 1232  
UNIT F AREA - 661 SF; TOTAL SF UNIT F - 1129

# HOUSING TYPES

## Single Family B



3 SINGLE FAMILY B - PERSPECTIVE



1 SINGLE FAMILY B - RIGHT ELEVATION  
ELEVATION 1/16" = 1'-0"



2 SINGLE FAMILY B - REAR ELEVATION  
ELEVATION 1/16" = 1'-0"



4 SINGLE FAMILY B - FRONT ELEVATION  
ELEVATION 1/16" = 1'-0"



5 SINGLE FAMILY B - LEFT ELEVATION  
ELEVATION 1/16" = 1'-0"

PRIMARY SIDING (S1)



ACCENT SIDING OPTIONS (S2):



SHAKE

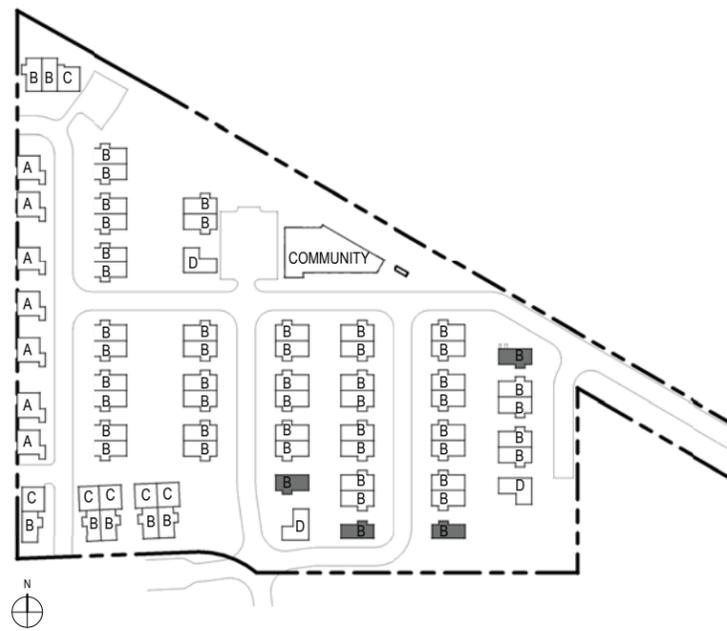


BOARD & BATTEN

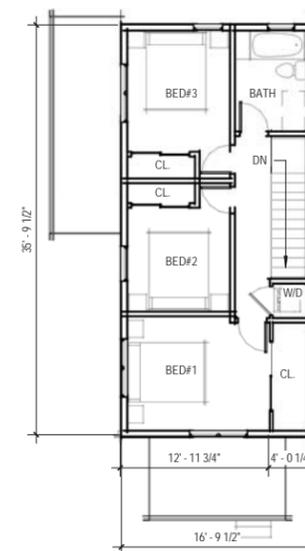


PANEL

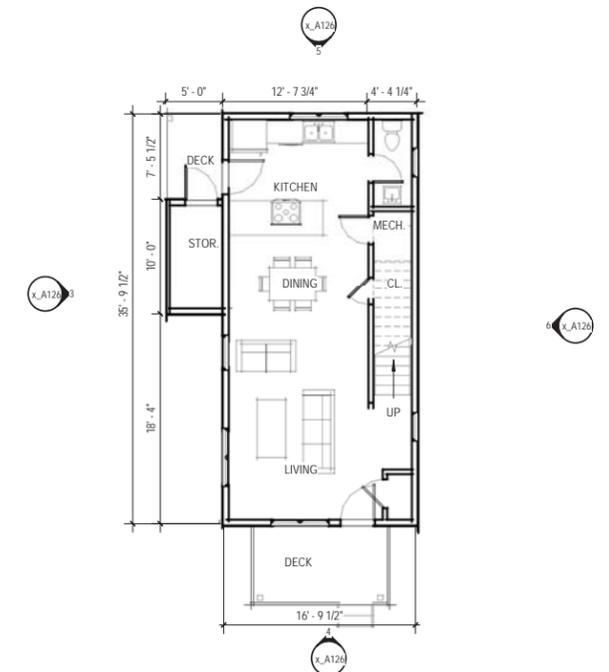
EXTERIOR SIDING LEGEND



SINGLE FAMILY B - SITE PLAN KEY



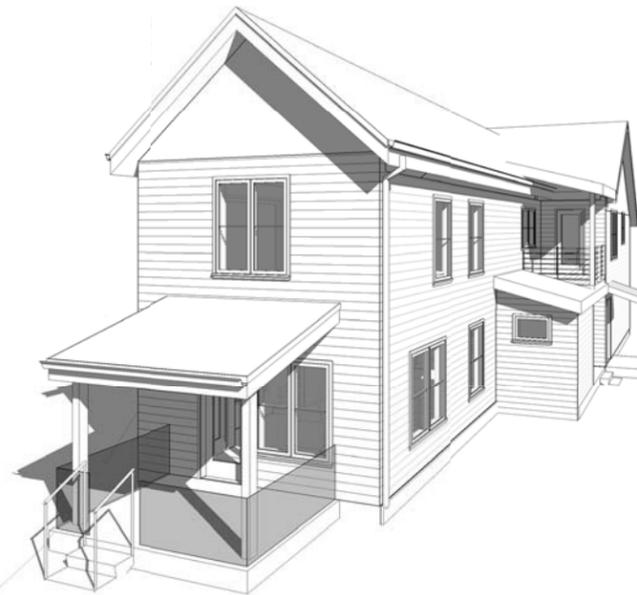
6 SINGLE FAMILY B - LEVEL 2  
ELEVATION 1/16" = 1'-0"  
UNIT B AREA - 571 SF PER UNIT



7 SINGLE FAMILY B - LEVEL 1  
ELEVATION 1/16" = 1'-0"  
UNIT B AREA - 661 SF PER UNIT; TOTAL SF - 1232 PER UNIT

# HOUSING TYPES

## Duplex BC



3 DUPLEX BC - PERSPECTIVE



1 DUPLEX BC - SOUTH ELEVATION  
ELEVATION 1/16" = 1'-0"



2 DUPLEX BC - EAST ELEVATION  
ELEVATION 1/16" = 1'-0"



4 DUPLEX BC - WEST ELEVATION  
ELEVATION 1/16" = 1'-0"



5 DUPLEX BC - NORTH ELEVATION  
ELEVATION 1/16" = 1'-0"

PRIMARY SIDING (S1)

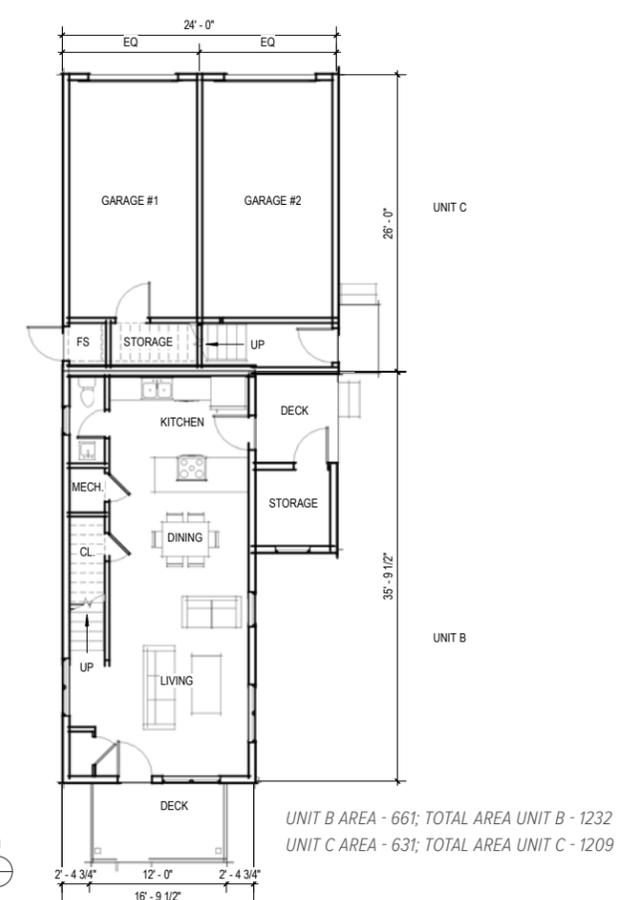
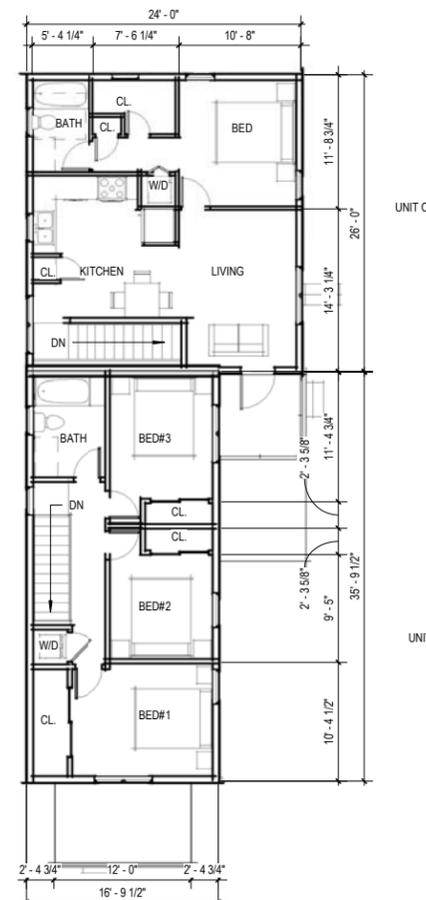
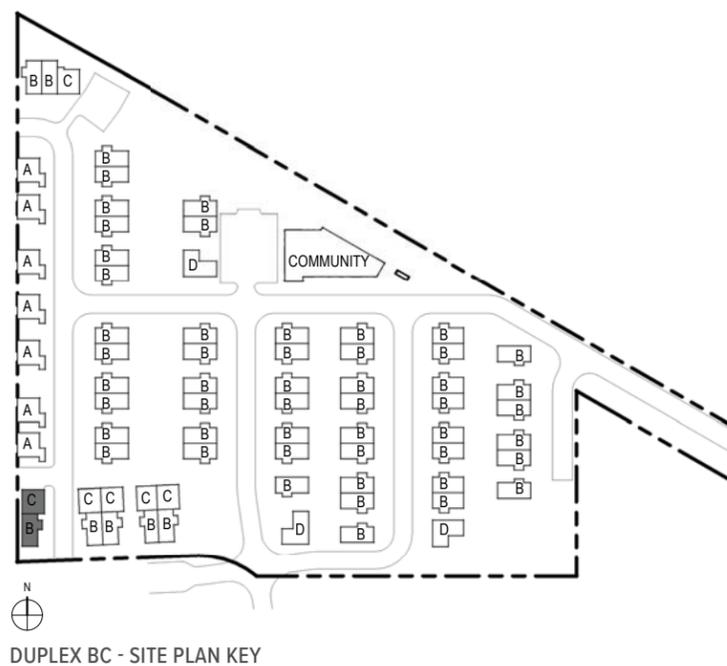
ACCENT SIDING OPTIONS (S2):

SHAKE

BOARD & BATTEN

PANEL

EXTERIOR SIDING LEGEND

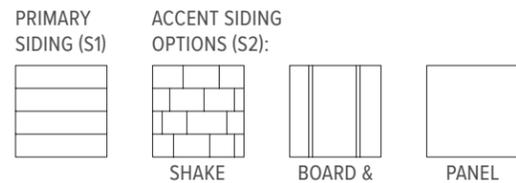


6 DUPLEX BC - LEVEL 2  
ELEVATION 1/16" = 1'-0"

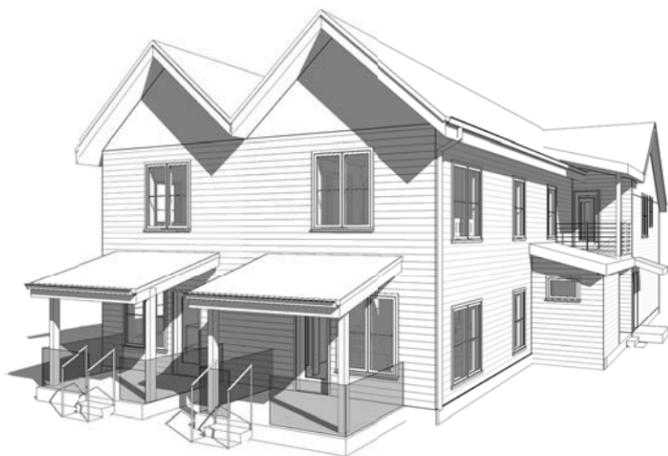
7 DUPLEX BC - LEVEL 1  
ELEVATION 1/16" = 1'-0"

# HOUSING TYPES

## Fourplex BBCC



EXTERIOR SIDING LEGEND



1 FOURPLEX BBCC - EAST ELEVATION  
ELEVATION 1/16" = 1'-0"



2 FOURPLEX BBCC - NORTH ELEVATION  
ELEVATION 1/16" = 1'-0"

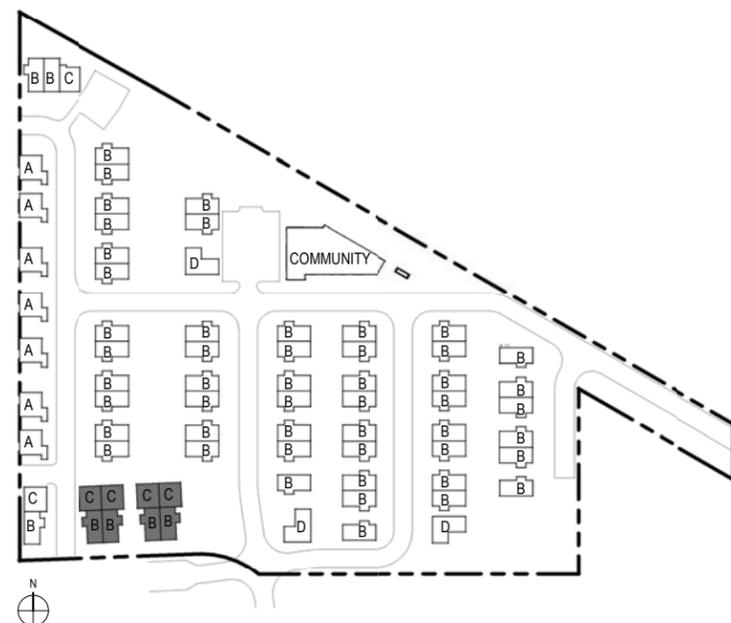


4 FOURPLEX BBCC - SOUTH ELEVATION  
ELEVATION 1/16" = 1'-0"

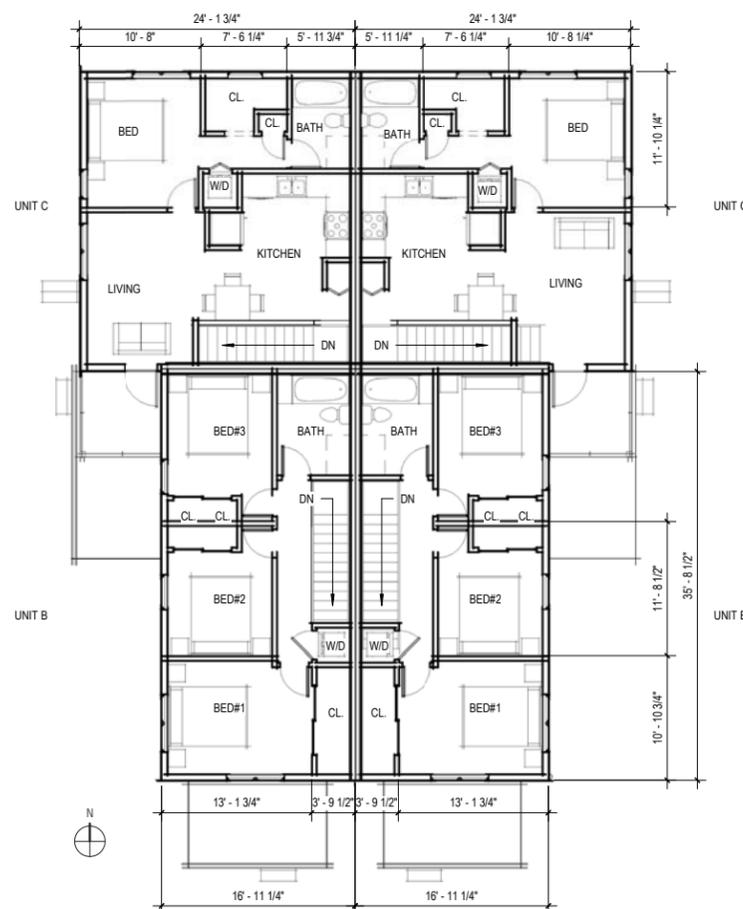


5 FOURPLEX BBCC - WEST ELEVATION  
ELEVATION 1/16" = 1'-0"

3 FOURPLEX BBCC - PERSPECTIVE

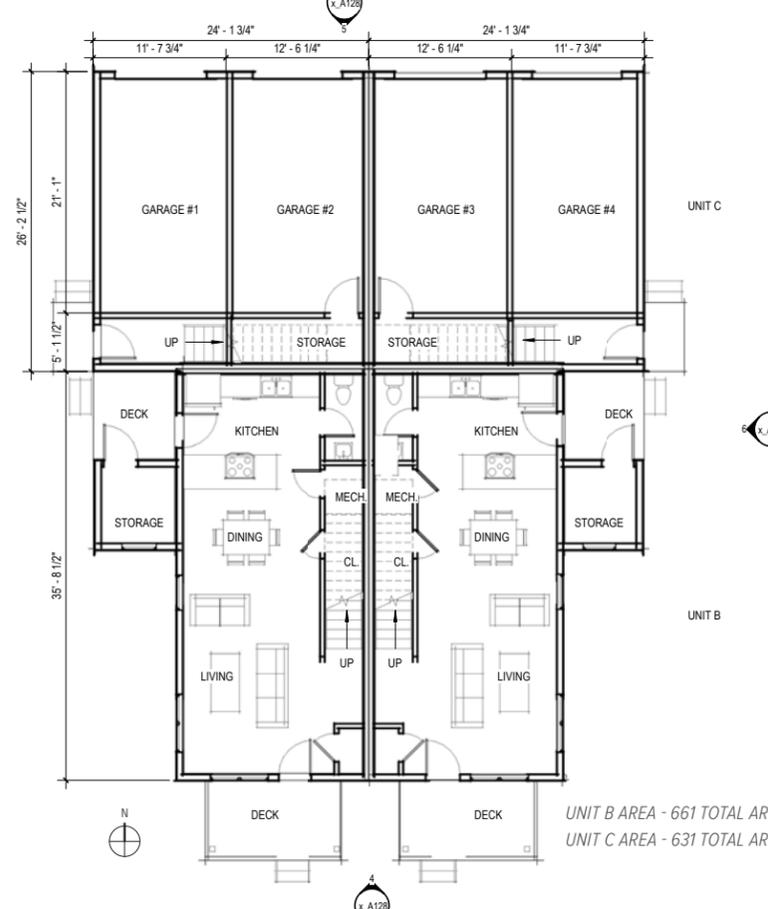


FOURPLEX BBCC - SITE PLAN KEY



6 FOURPLEX BBCC - LEVEL 2  
ELEVATION 1/16" = 1'-0"

UNIT B AREA - 571  
UNIT C AREA - 578

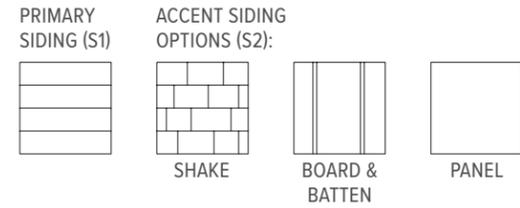


7 FOURPLEX BBCC - LEVEL 1  
ELEVATION 1/16" = 1'-0"

UNIT B AREA - 661 TOTAL AREA UNIT B - 1232  
UNIT C AREA - 631 TOTAL AREA UNIT C - 1209

# HOUSING TYPES

## Triplex BBC



EXTERIOR SIDING LEGEND



3 TRIPLEX BBC - PERSPECTIVE



1 TRIPLEX BBC - EAST ELEVATION  
ELEVATION 1/16" = 1'-0"



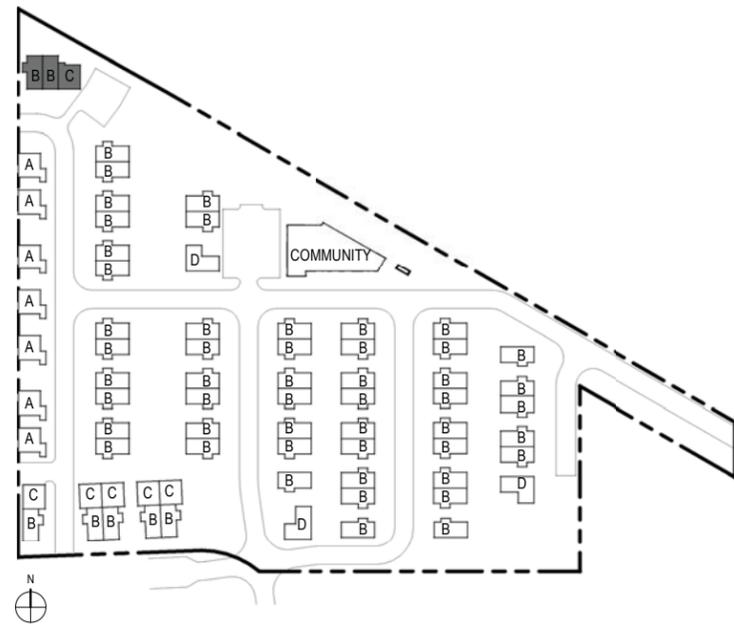
2 TRIPLEX BBC - NORTH ELEVATION  
ELEVATION 1/16" = 1'-0"



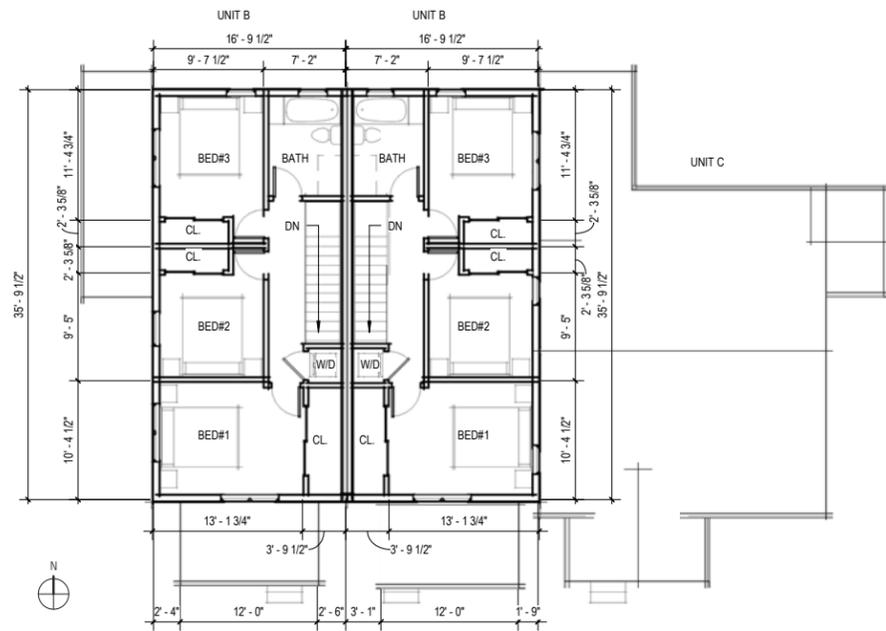
4 TRIPLEX BBC - SOUTH ELEVATION  
ELEVATION 1/16" = 1'-0"



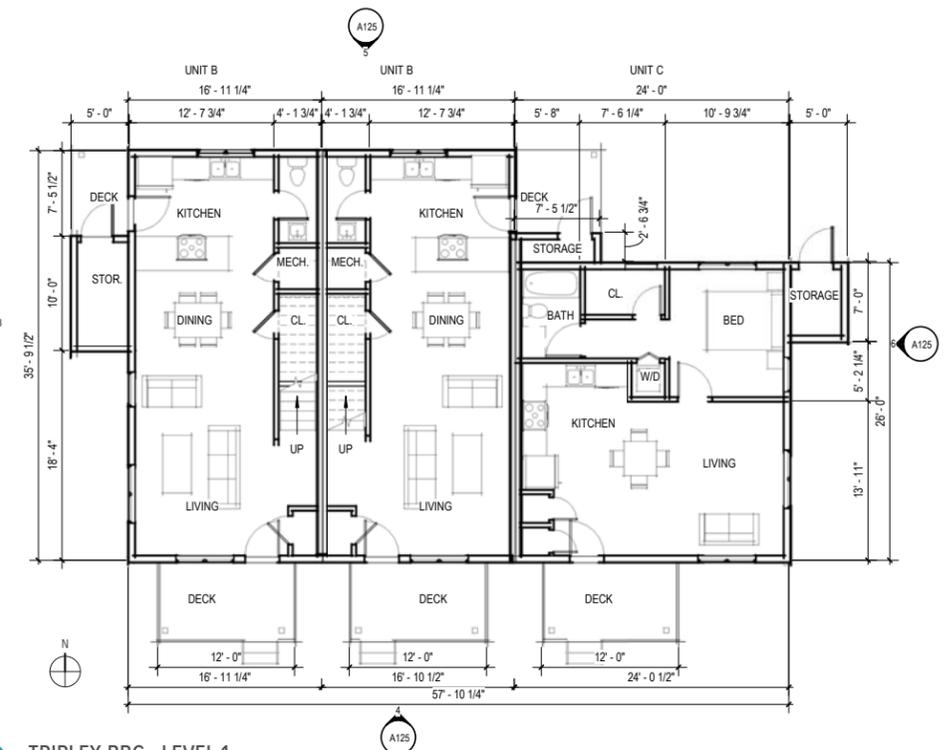
5 TRIPLEX BBC - WEST ELEVATION  
ELEVATION 1/16" = 1'-0"



TRIPLEX BBC - SITE PLAN KEY



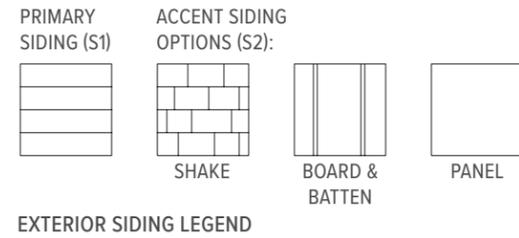
6 TRIPLEX BBC - LEVEL 2  
ELEVATION 1/16" = 1'-0"  
UNIT B AREA - 571



7 TRIPLEX BBC - LEVEL 1  
ELEVATION 1/16" = 1'-0"  
UNIT B AREA - 661 TOTAL AREA UNIT B - 1232  
UNIT C AREA - 652 TOTAL AREA UNIT C - 652

# HOUSING TYPES

## Accessible Cottage D



1 ACCESSIBLE COTTAGE D - FRONT ELEVATION  
ELEVATION 1/16" = 1'-0"



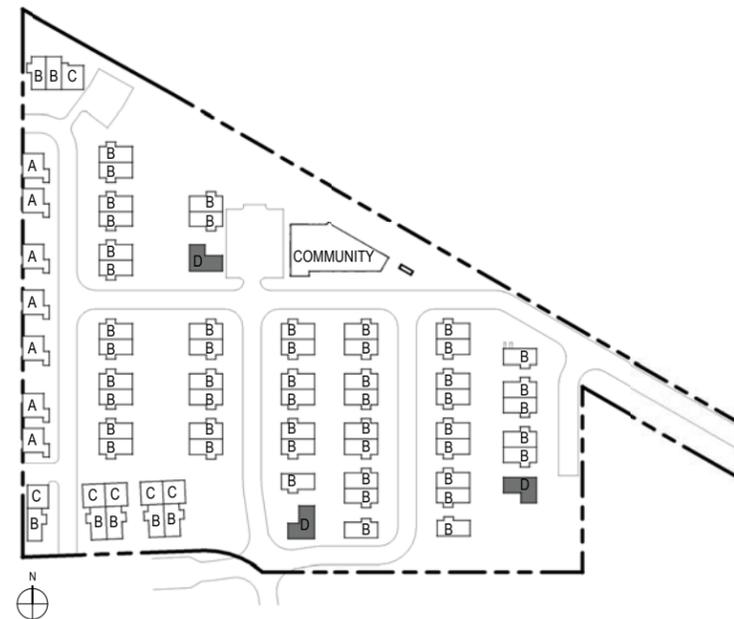
2 ACCESSIBLE COTTAGE D - RIGHT ELEVATION  
ELEVATION 1/16" = 1'-0"



3 ACCESSIBLE COTTAGE D - REAR ELEVATION  
ELEVATION 1/16" = 1'-0"



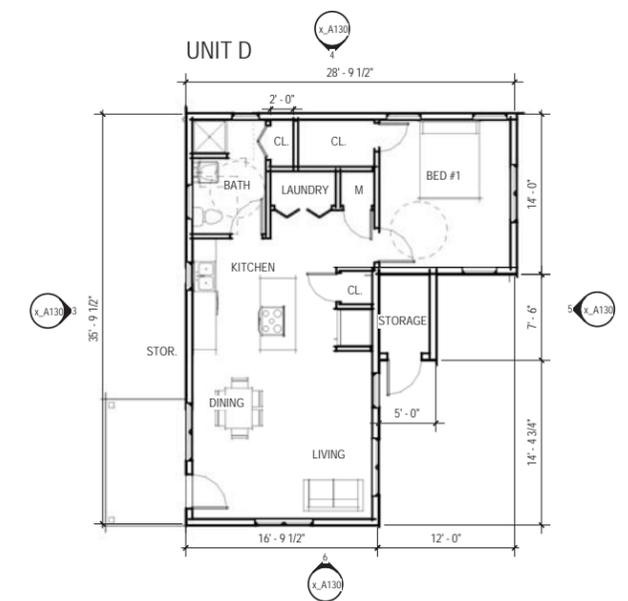
4 ACCESSIBLE COTTAGE D - LEFT ELEVATION  
ELEVATION 1/16" = 1'-0"



ACCESSIBLE COTTAGE D - SITE PLAN KEY



5 ACCESSIBLE COTTAGE D - PERSPECTIVE



6 ACCESSIBLE COTTAGE D - LEVEL 1  
ELEVATION 1/16" = 1'-0"  
UNIT D AREA - 836 SF











LEGEND

- Public Land Corner Found
Set #5 Rebar with 1" Red Plastic Cap
Found Monument as Noted
Existing Water Valve
Existing Gas Meter
Existing Water Meter
Existing Power Pole
Existing Light Pole
Existing Sign
Existing Fire Hydrant
Existing Fence
Existing Overhead Power Line
Existing Sanitary Sewer W/Manhole
Existing Water W/Fire Hydrant
Existing Storm Sewer W/Manhole
Record Measurement Per Deeds
Measured Course Per This Survey

SURVEY NOTES

- 1. THE BASIS OF BEARINGS IS THE RECORD BEARING OF THE EAST LINE OF THE NORTHEAST 1/4 OF SECTION 13 BETWEEN THE FOUND MONUMENTS SHOWN HEREON AND BEARS S00°04'00"E PER MANY OF THE DEEDS REFERENCED.
2. THE SIZE AND TYPE OF MONUMENTS FOUND ARE SHOWN HEREON.
3. THE SURVEY FIELD WORK ON THIS SITE WAS COMPLETED JANUARY 8, 2008 AND UPDATED ON JUNE 30, 2017.
4. BUILDING MEASUREMENTS ARE WITHIN 3' OF GROUND LEVEL.
5. PORTIONS OF THE PROPERTY LIE WITHIN SPECIAL FLOOD HAZARD AREAS (SFHAS) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD, ALSO KNOWN AS THE BASE FLOOD, IS THE FLOOD THAT HAS A 1% CHANCE OF BEING EQUALED OR EXCEEDED IN ANY GIVEN YEAR. THE SPECIAL FLOOD HAZARD AREA IS THE AREA SUBJECT TO FLOODING BY THE 1% ANNUAL CHANCE FLOOD, ZONE AE -BASE FLOOD ELEVATIONS DETERMINED. THE BASE FLOOD IS THE WATER-SURFACE ELEVATION OF THE 1% CHANCE FLOOD. APPROXIMATE SFHAS ARE SHOWN PER CITY OF BOULDER GIS FLOOD MAPPING, REFERENCE FIRM MAP NUMBER 0801300391J, MAP REVISED DECEMBER 18, 2012.
6. NOTICE: ACCORDING TO COLORADO LAW, YOU MUST COMMENCE ANY LEGAL ACTION BASED ON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT, MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON. CRS-13-80-105 (3)(c)
7. THE LOCATION OF THE ABOVE GROUND UTILITIES SHOWN HEREON ARE BASED ON THE FIELD SURVEY BY SCOTT, COX & ASSOCIATES, INC. THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON SAID SURVEY AND INFORMATION PROVIDED BY OTHERS (WHICH MAY INCLUDE THE UTILITY OWNER OR UTILITY LOCATING SERVICES). SCOTT, COX & ASSOCIATES, INC. IS NOT RESPONSIBLE FOR UTILITY INFORMATION PROVIDED BY OTHERS. SCOTT, COX & ASSOCIATES, INC. RECOMMENDS THAT THE LOCATION OF THE UTILITIES BE FIELD VERIFIED PRIOR TO ANY DIGGING ON, OR ADJACENT TO THE SUBJECT PROPERTY.
8. LAND SURVEY PLATS REFERENCED OR USED FOR THIS SURVEY: DREXEL BARRELL & CO. LAND SURVEY PLAT, DATED 12/21/2000, DRAWING NO. B50-210, JOB NO. 2561-19, LS-01-0159, UPDATED FROM LS-91-0016. ALSO REVIEWED LS-97-0248, LS-98-0140, LS-97-0248, LS-05-0169, LS-08-0114.
9. INGRESS AND EGRESS FROM THE PROPERTY IS PROVIDED BY CHERRY AVENUE AND BROADWAY, AS SHOWN HEREON, BOTH BEING PUBLIC RIGHT OF WAYS MAINTAINED BY THE CITY OF BOULDER. INGRESS AND EGRESS IS BEING USED THROUGH TWO GATES IN THE CHAINLINK FENCE AT THE SOUTHEAST CORNER OF THE PROPERTY (NOTE: RIGHT OF ENTRY AS SHOWN ON "THE PLAZA"). CLIENT INDICATED RIGHT OF INGRESS AND EGRESS AT THE NORTHWEST CORNER OF THE SITE AS NOTED.
10. NO EVIDENCE OF "PUMP MANHOLE" AS SHOWN ON PREVIOUS SURVEYS.
11. NO OBSERVED EVIDENCE OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS, NO OBSERVED EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS, NO OBSERVED EVIDENCE OF WETLAND AREAS AS DELINEATED BY APPROPRIATE AUTHORITIES, NO RECORD OF OFFSITE EASEMENTS OR SERVITUDES BENEFITING THE SURVEYED PROPERTY.

TITLE COMMITMENT NOTES

- ITEM 12 EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: CITY OF BOULDER, A COLORADO MUNICIPAL CORPORATION
PURPOSE: SANITARY SEWER MAIN AND APPURTENANCES THERETO
RECORDING DATE: NOVEMBER 15, 1984
RECORDING NO: RECEPTION NO. 657398 [AFFECTS PROPERTY AND IS SHOWN]
ITEM 13 TERMS, CONDITIONS, PROVISIONS, AGREEMENTS AND OBLIGATIONS CONTAINED IN THE MAIN EXTENSION AGREEMENT AS SET FORTH BELOW:
RECORDING DATE: DECEMBER 12, 1984
RECORDING NO: 661693 [AFFECTS PROPERTY BUT IS BLANKET IN NATURE]
ITEM 14 THE EFFECT OF ORDINANCE NO. 5355 RECORDED DECEMBER 24, 1990 AS RECEPTION NO. 1079937, AND ORDINANCE NO. 5392 RECORDED MAY 13, 1991 AS RECEPTION NO. 1103103 WITH RESPECT TO ANNEXATION TO THE CITY OF BOULDER. [PROPERTY IS NOT ANNEXED]
ITEM 15 TERMS, CONDITIONS, PROVISIONS, AGREEMENTS, EASEMENTS AND OBLIGATIONS CONTAINED IN THE EASEMENT AGREEMENT BY AND BETWEEN MANTLE RANCH REAL ESTATE L.P., A COLORADO LIMITED PARTNERSHIP AND MARK BICKLER AS SET FORTH IN THE DECREE QUETING TITLE:
RECORDING DATE: FEBRUARY 18, 2010
RECORDING NO: RECEPTION NO. 3059577 [AFFECTS THE PROPERTY AND IS SHOWN]
ITEM 16 ANY RIGHTS, INTERESTS, OR CLAIMS WHICH MAY EXIST OR ARISE BY REASON OF THE FOLLOWING MATTERS DISCLOSED BY SURVEY,
JOB NO.: LS-08-0114 ON FILE WITH BOULDER COUNTY
DATED: JANUARY 15, 2008
PREPARED BY: SCOTT, COX & ASSOCIATES, INC.
MATTERS SHOWN: ENCROACHMENTS AS SHOWN; FENCE LINES ARE NOT COINCIDENT WITH LOT LINES AS EVIDENCED; AND SURVEY NOTES. [AS SHOWN HEREON]
ITEM 17 ANY RIGHTS, INTERESTS, OR CLAIMS WHICH MAY EXIST OR ARISE BY REASON OF THE FOLLOWING MATTERS DISCLOSED BY SURVEY,
JOB NO.: PROJECT 17298A
DATED: JULY 14, 2017
PREPARED BY: SCOTT, COX & ASSOCIATES, INC.
MATTERS SHOWN: ENCROACHMENTS AS SHOWN; FENCE LINES ARE NOT COINCIDENT WITH LOT LINES AS EVIDENCED; AND SURVEY NOTES. [AS SHOWN HEREON]

LEGAL DESCRIPTION PARCEL I (PER TITLE COMMITMENT)

A TRACT OF LAND IN SECTION 13, TOWNSHIP 1 NORTH, RANGE 71 WEST OF THE 6TH P.M., DESCRIBED AS FOLLOWS:
BEGINNING AT THE NORTHEAST CORNER OF SAID SECTION 13; THENCE SOUTH ALONG THE EAST LINE OF SAID SECTION 13, 1002 FEET; THENCE SOUTH 89°54'50" WEST (SURVEYED: NORTH 89°58'34" WEST), 210.5 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 89°54'50" WEST (SURVEYED: NORTH 89°58'34" WEST), 612.5 FEET, MORE OR LESS, TO THE SOUTHWEST CORNER OF TRACT OF LAND DESCRIBED IN BOOK 1046 AT PAGE 18 OF THE RECORDS IN THE OFFICE OF THE BOULDER COUNTY CLERK AND RECORDER; THENCE NORTH 0°04' WEST 591.6 FEET, MORE OR LESS, ALONG THE WEST LINE OF TRACTS DESCRIBED IN BOOK 1046 AT PAGE 18 AND BOOK 1155 AT PAGE 566 TO THE NORTHWEST CORNER OF THE TRACT IN BOOK 1155 AT PAGE 566; THENCE SOUTH 59°44' EAST TO A POINT IMMEDIATELY NORTH OF THE POINT OF BEGINNING; THENCE SOUTH TO THE POINT OF BEGINNING, EXCEPT THAT PORTION COVERED BY THE TRACT OF LAND DESCRIBED IN BOOK 1046 AT PAGE 18 OF THE RECORDS IN THE OFFICE OF THE BOULDER COUNTY CLERK AND RECORDER, EXCEPT ANY PORTION THEREOF LYING WITHIN THAT TRACT OF LAND DESCRIBED IN DEED RECORDED MAY 17, 1949 IN BOOK 843 AT PAGE 222, COUNTY OF BOULDER, STATE OF COLORADO.

LEGAL DESCRIPTION PARCEL III (PER TITLE COMMITMENT)

A TRACT OF LAND IN THE NORTHEAST 1/4 OF SECTION 13, TOWNSHIP 1 NORTH, RANGE 71 WEST OF THE 6TH P.M., DESCRIBED AS FOLLOWS:
BEGINNING AT THE NORTHWEST CORNER OF THE TRACT OF LAND DESCRIBED IN BOOK 1046 AT PAGE 18 OF THE BOULDER COUNTY, COLORADO, RECORDS; THENCE NORTH 0°04' W A DISTANCE OF 60 FEET; THENCE SOUTHEASTERLY AND PARALLEL WITH THE NORTHERLY LINES OF THE TRACTS OF LAND DESCRIBED IN BOOK 1043 AT PAGE 18 AND BOOK 1037 AT PAGE 533 TO THE WEST LINE OF COLORADO ROAD NO. 7; THENCE SOUTHERLY ALONG THE WEST LINE OF SAID COLORADO ROAD A DISTANCE OF 60 FEET MORE OR LESS TO THE NORTHEAST CORNER OF THE TRACT OF LAND DESCRIBED IN BOOK 1037 AND PAGE 533 OF THE BOULDER COUNTY, COLORADO, RECORDS; THENCE NORTHWESTERLY ALONG THE NORTHERLY LINES OF THE TRACTS OF LAND DESCRIBED IN BOOK 1046 AT PAGE 18 AND BOOK 1046 AT PAGE 18 OF THE BOULDER COUNTY, COLORADO RECORDS, TO THE POINT OF BEGINNING. COUNTY OF BOULDER, STATE OF COLORADO.

LEGAL DESCRIPTION (PREPARED BY SURVEYOR PER CLIENT REQUEST, TOTAL PARCEL)

A TRACT OF LAND LOCATED IN THE NORTHEAST 1/4 OF SECTION 13, TOWNSHIP 1 NORTH, RANGE 71 WEST OF THE 6TH P.M., COUNTY OF BOULDER, STATE OF COLORADO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT THE NORTHEAST CORNER OF SAID SECTION 13, WHENCE THE EAST LINE OF SAID SECTION 13 BEARS S00°04'00"E, SAID LINE FORMING THE BASIS OF BEARINGS FOR THIS DESCRIPTION; THENCE ALONG SAID EAST LINE S00°04'00"E, 872.00 FEET; THENCE N90°00'00"W 40.00 FEET TO THE WESTERLY RIGHT OF WAY OF N. BROADWAY (COLORADO STATE HIGHWAY 7) AND THE TRUE POINT OF BEGINNING;
THENCE N69°56'23"W, 197.13 FEET; THENCE S00°04'00"E, 202.29 FEET; THENCE N89°58'34"W 350.65 FEET TO THE NORTHERLY RIGHT OF WAY OF 10TH ST. PER RECEPTION NO. 01575389 RECORDED 1/9/96; THENCE ALONG SAID NORTHERLY RIGHT OF WAY THE FOLLOWING THREE COURSES: 1) NORTHWESTERLY ALONG THE ARC OF A CURVE CONCAVE SOUTHWESTERLY HAVING A CENTRAL ANGLE OF 39°36'39" A RADIUS OF 98.00 FEET (CORD BEARS N70°10'17"W, 66.41') AN ARC DISTANCE OF 67.75 FEET; 2) THENCE N89°58'34"W, 34.68 FEET; 3) THENCE S87°28'48"W, 164.87 FEET TO THE EASTERLY LINE OF 1000 ROSEWOOD SUBDIVISION; THENCE ALONG SAID EASTERLY LINE N00°04'00"W, 538.59 FEET; THENCE CONTINUING N00°04'00"W, 60.00 FEET; THENCE S60°43'52"E, 186.98 FEET; THENCE S59°56'23"E, 716.83 FEET TO SAID WESTERLY RIGHT OF WAY OF N. BROADWAY; THENCE ALONG SAID WESTERLY RIGHT OF WAY S00°04'00"E, 60.00 FEET TO THE TRUE POINT OF BEGINNING.
SAID PARCEL OF LAND CONTAINS 6.298 ACRES.

CERTIFICATION

TO: FIDELITY NATIONAL TITLE INSURANCE COMPANY; CITY OF BOULDER, A COLORADO HOME RULE CITY; MANTLE RANCH REAL ESTATE L.P., A COLORADO LIMITED PARTNERSHIP
THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1-4, 7(G), 8, 9, 13, 16-19 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON JUNE 30, 2017.

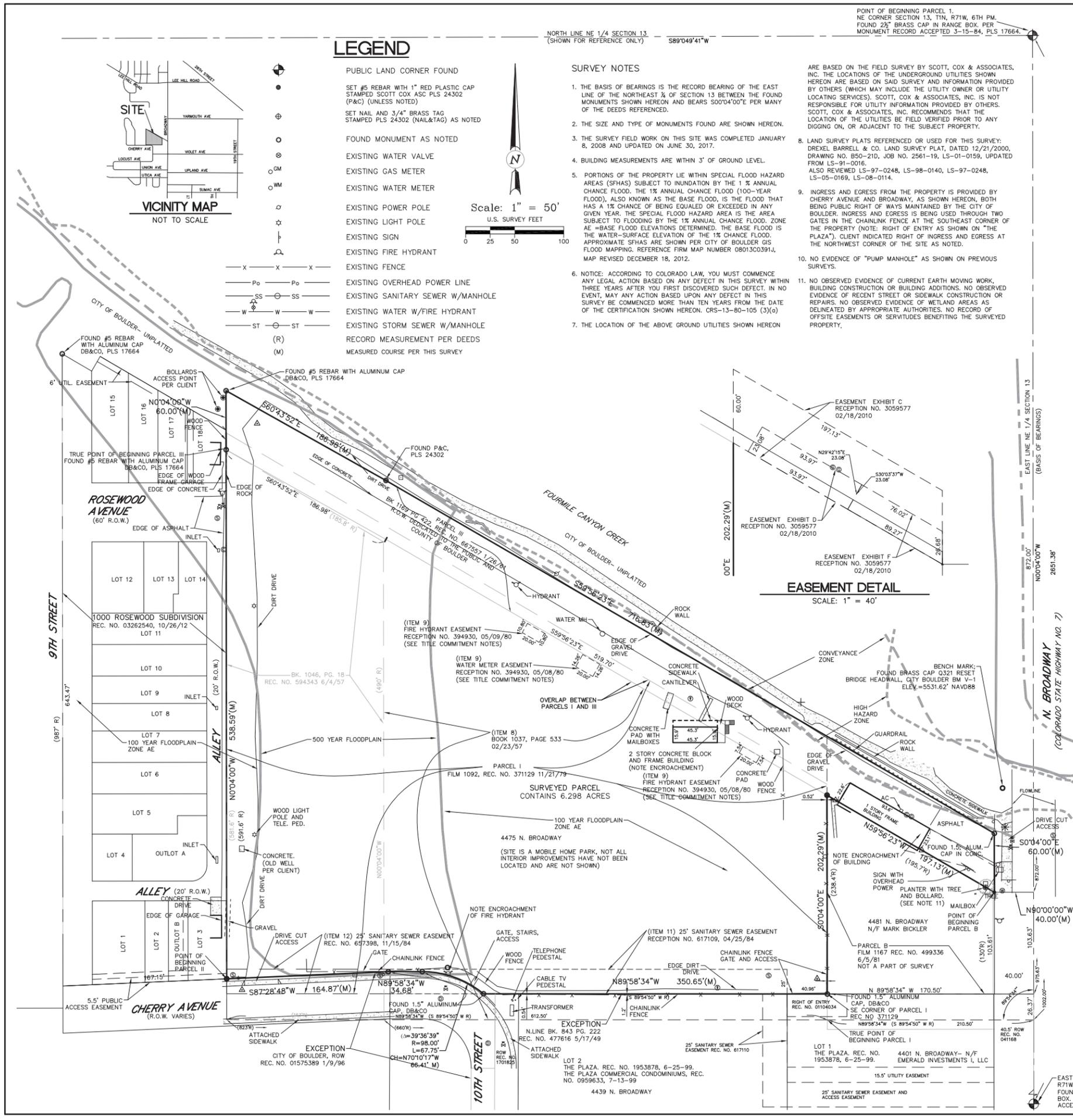
A. JOHN BURR, PLS 24302
FOR AND ON BEHALF OF
SCOTT, COX & ASSOCIATES, INC.



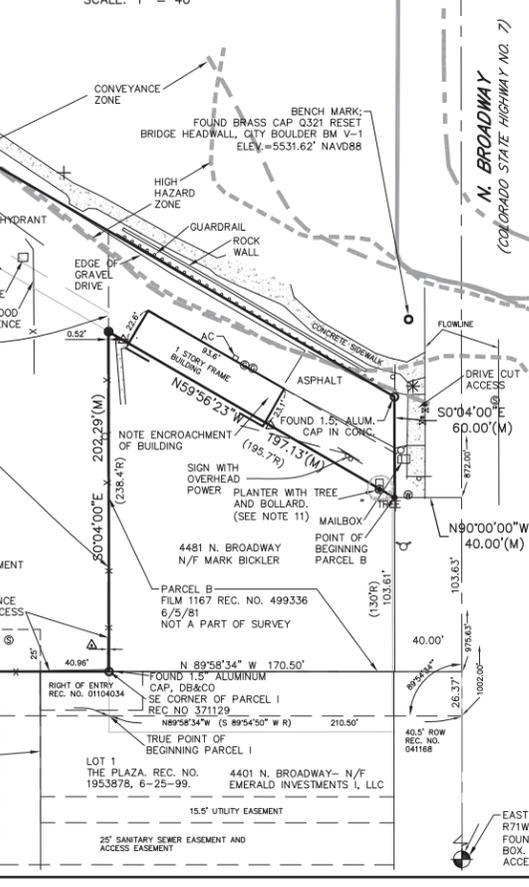
ALTA/NSPS LAND TITLE SURVEY
LOCATED IN NE 1/4 OF SECTION 13
T1N, R71W OF THE 6TH P.M.
COUNTY OF BOULDER
STATE OF COLORADO
4475 BROADWAY



Table with columns: Designed by (AJB), Date (07/28/17), Scale (1"=50'), Drawing no. (17298A-1), Sheet (1), Drawn by (JAS), Revision, Description, Date, Project no. (17298A), Checked by (AJB), Agenda Item 5A, Page 191 of 284.



EASEMENT DETAIL
SCALE: 1" = 40'



**ALIGNMENT D**

- EXISTING DECIDUOUS TREE
- EXISTING CONTOUR
- SET #5 REBAR WITH 1" RED PLASTIC CAP STAMPED SCOTT COX ASS PLS 24302 (P&C) (UNLESS NOTED)
- SET NAIL AND 3/4" BRASS TAG STAMPED PLS 24302 (NAIL&TAG) AS NOTED
- FOUND MONUMENT AS NOTED
- EXISTING BOLLARD
- EXISTING MAILBOX
- EXISTING AREA DRAIN
- EXISTING WATER VALVE
- EXISTING CLEANOUT
- EXISTING GAS METER
- EXISTING WATER METER
- CONTROL POINT
- EXISTING POWER POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING FIRE HYDRANT
- EXISTING FENCE
- EXISTING UNDERGROUND POWER LINE
- EXISTING OVERHEAD POWER LINE
- EXISTING GAS LINE
- EXISTING SANITARY SEWER W/MANHOLE
- EXISTING WATER W/FIRE HYDRANT
- EXISTING STORM SEWER W/MANHOLE
- (R) RECORD COURSE PER DEEDS
- (M) MEASURED COURSE PER THIS SURVEY

**NOTES**

1. BENCH MARK: CITY OF BOULDER V-1; FOUND USGS BRASS CAP Q321 AT THE SOUTH END OF A HEADWALL LOCATED AT THE INTERSECTION OF BROADWAY AND FOUR MILE CREEK. ELEVATION = 5531.82' NAVD88
2. SITE IS A MOBILE HOME PARK, NOT ALL INTERIOR IMPROVEMENTS HAVE BEEN LOCATED AND ARE NOT SHOWN. TRAILER FOOTPRINTS ARE APPROXIMATE AND MAY BE DRAFTED FROM AERIAL IMAGE.
3. THE LOCATION OF THE ABOVE GROUND UTILITIES SHOWN HEREON ARE BASED ON THE FIELD SURVEY BY SCOTT, COX & ASSOCIATES, INC. THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON SAID SURVEY AND INFORMATION PROVIDED BY OTHERS (WHICH MAY INCLUDE THE UTILITY OWNER OR UTILITY LOCATING SERVICES). SCOTT, COX & ASSOCIATES, INC. IS NOT RESPONSIBLE FOR UTILITY INFORMATION PROVIDED BY OTHERS. SCOTT, COX & ASSOCIATES, INC. RECOMMENDS THAT THE LOCATION OF THE UTILITIES BE FIELD VERIFIED PRIOR TO ANY DIGGING ON, OR ADJACENT TO THE SUBJECT PROPERTY.
4. THE TREES IDENTIFIED ON THIS DRAWING MAY REPRESENT A SINGLE TREE OR THE CENTRAL POINT WITHIN A CLUSTER OF OTHER, SMALLER TREES. WHILE AN EFFORT WAS MADE TO LOCATE ALL TREES WITHIN THE CLIENT'S DIRECTED PARAMETERS, NO GUARANTEE IS PROVIDED THAT ALL TREES WITHIN THESE PARAMETERS HAVE BEEN LOCATED.
5. THIS DRAWING IS BASED ON A FIELD SURVEY COMPLETED ON 03/27/18.
6. NOTICE: ACCORDING TO COLORADO LAW, YOU MUST COMMENCE ANY LEGAL ACTION BASED ON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT, MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE SHOWN HEREON. CRS-13-80-105(3)a.



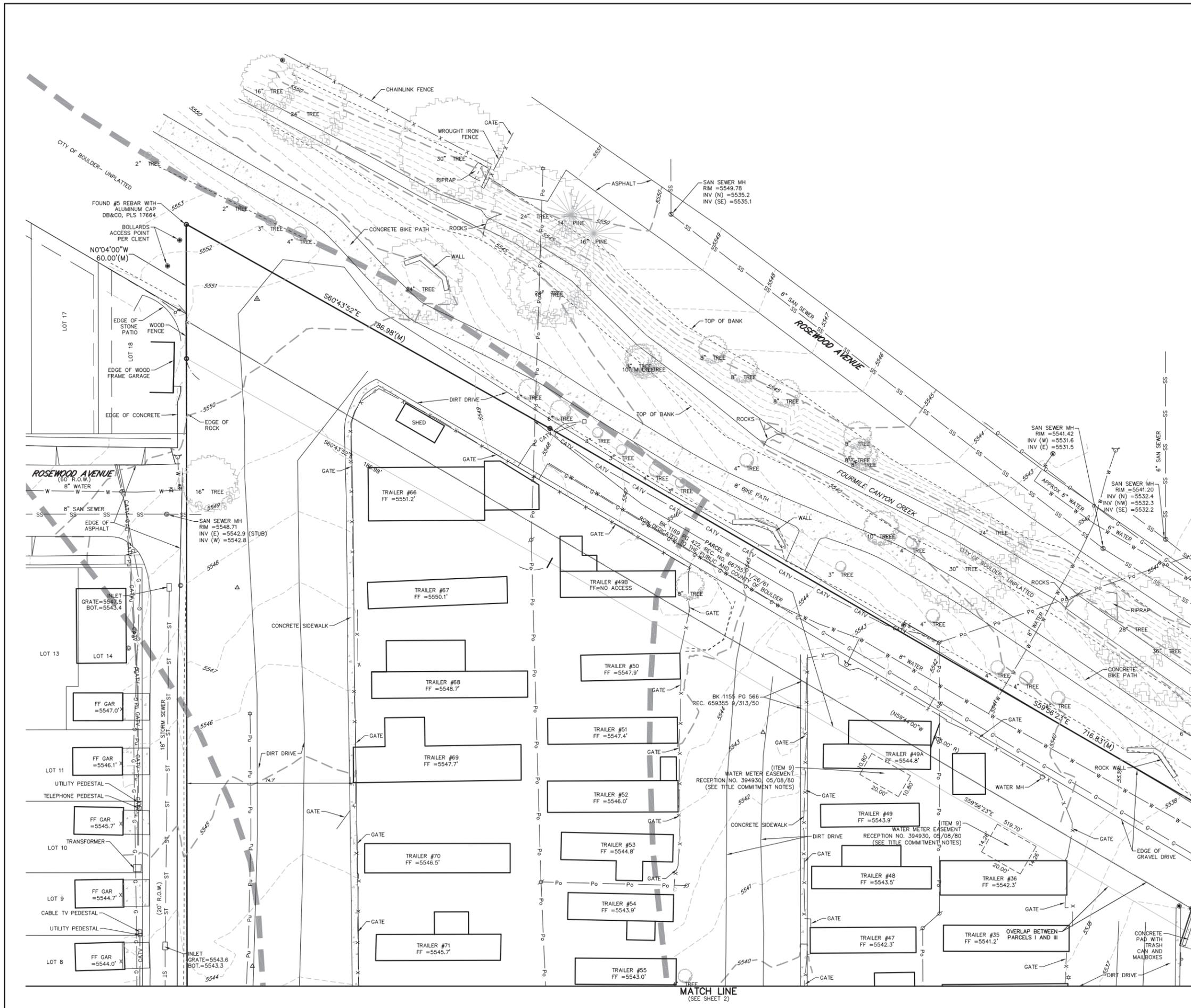
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U.S. SURVEY FEET



**TOPOGRAPHIC MAP  
PONDEROSA MOBILE HOME PARK  
4475 N. BROADWAY  
BOULDER, COLORADO**

**SCOTT, COX & ASSOCIATES, INC.**  
consulting engineers • surveyors  
1530 55th Street • Boulder, Colorado 80303  
(303) 444 - 3051

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Drawn by	JAS	Revision		Description		Date		Project no.	17298B
Checked by	AJB								

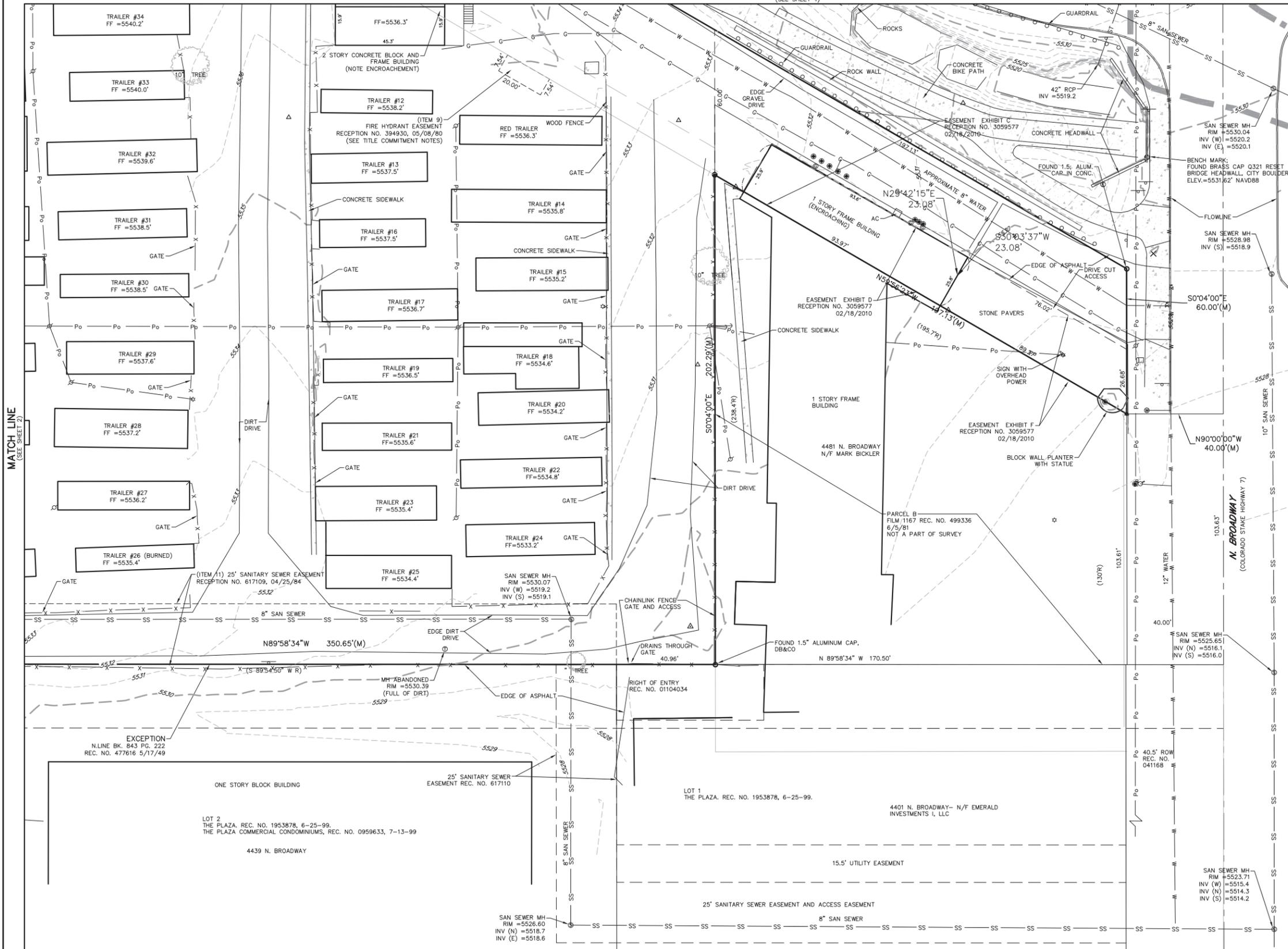


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MATCH LINE  
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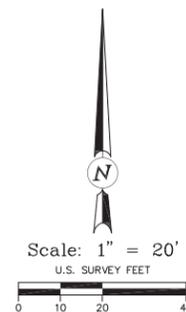


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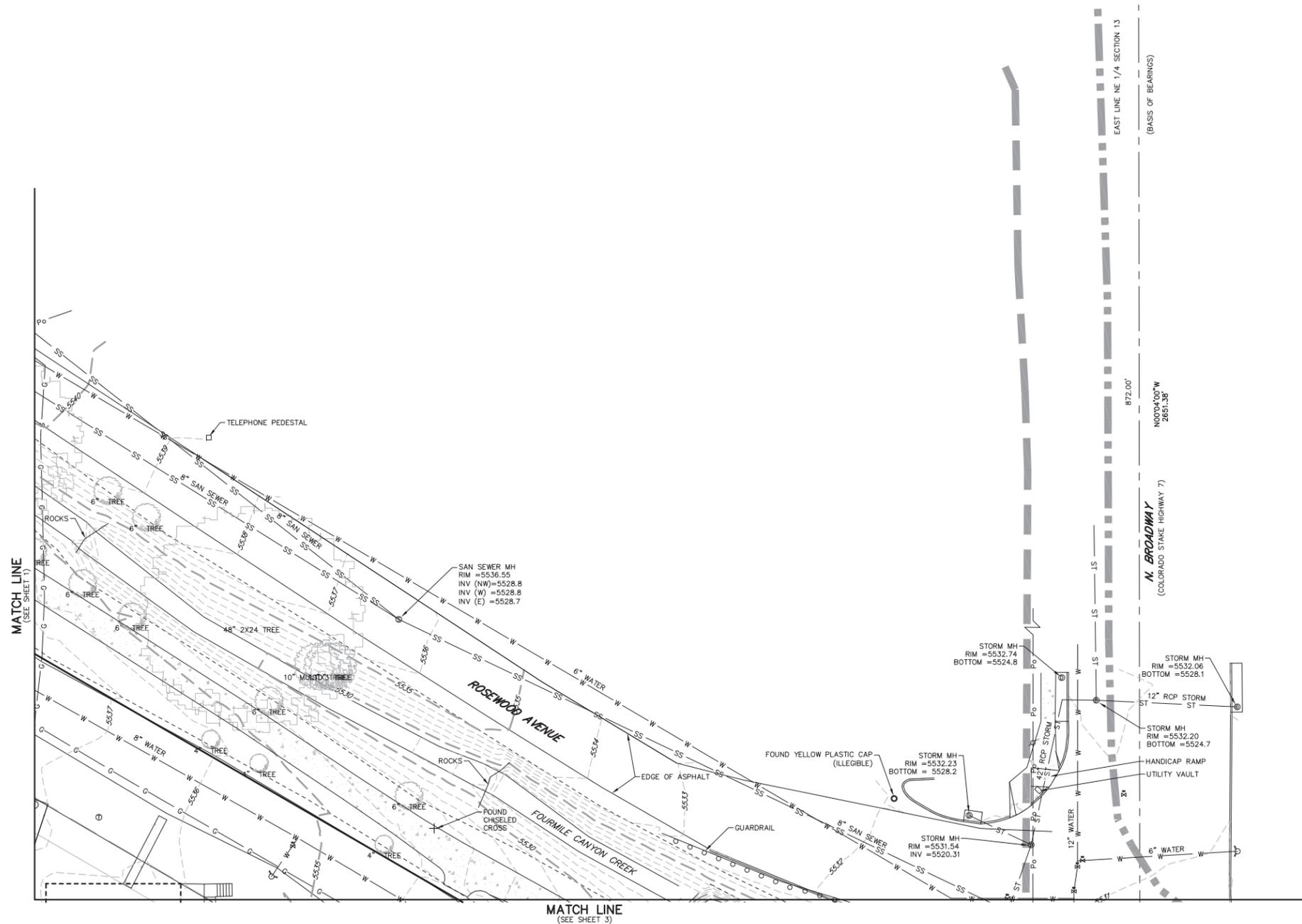
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- EXISTING WATER METER
- CONTROL POINT
- EXISTING POWER POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING FIRE HYDRANT
- EXISTING FENCE
- EXISTING UNDERGROUND POWER LINE
- EXISTING OVERHEAD POWER LINE
- EXISTING GAS LINE
- EXISTING SANITARY SEWER W/MANHOLE
- EXISTING WATER W/FIRE HYDRANT
- EXISTING STORM SEWER W/MANHOLE
- RECORD COURSE PER DEEDS
- MEASURED COURSE PER THIS SURVEY



TOPOGRAPHIC MAP  
PONDEROSA MOBILE HOME PARK  
4475 N. BROADWAY  
BOULDER, COLORADO

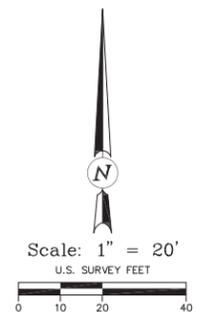
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Drawn by	JAS	Revision		Description		Date		Project no.	17298B
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**LEGEND**

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**TOPOGRAPHIC MAP**  
**PONDEROSA MOBILE HOME PARK**  
**4475 N. BROADWAY**  
**BOULDER, COLORADO**

**SCOTT, COX & ASSOCIATES, INC.**  
 consulting engineers • surveyors  
 1530 55th Street • Boulder, Colorado 80303  
 (303) 444 - 3051

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**Preliminary Stormwater Report**  
FOR  
**Ponderosa Community Stabilization Project**  
AT  
**4475 BROADWAY**  
**BOULDER, CO 80304**  
FOR  
**Trestle Strategy Group**



---

July 29, 2019



July 29, 2019

[www.jvajva.com](http://www.jvajva.com)

Mr. Edward Stafford  
Development Review Manager  
City of Boulder – Planning and Development Services  
1739 Broadway, Third Floor  
P.O. Box 791  
Boulder, CO 80306-0791

RE: Preliminary Stormwater Report for Ponderosa Community Stabilization Project  
JVA, Inc. Project No. 2408c

Dear Edward,

The following *Preliminary Stormwater Report* and attached drainage maps have been prepared for the Ponderosa Community Stabilization Project. The stormwater report and drainage maps have been produced in accordance with the “City of Boulder Design and Construction Standards”, 2000 Edition, and the latest local Urban Drainage and Flood Control District recommendations.

It is our understanding that the information provided herein meets all requirements of the City of Boulder. This report is being included as part of a formal Site Review submittal to the City for the Ponderosa Community Stabilization Project.

Please contact us if you have any questions regarding this submission.

Sincerely,

JVA, Inc.

Sharon Procopio, P.E.  
Project Manager



Engineer's Statement:

“I hereby certify that this report and plan for the Preliminary Stormwater design of the Ponderosa Community Stabilization Project was prepared by me (or under my direct supervision in accordance with the provisions of the City of Boulder Design and Construction Standards, 2000 Edition, and was designed to comply with the provisions thereof. I understand that the City of Boulder does not and shall not assume liability for drainage facilities designed by others.”

---

Charles R. Hager IV, P.E.  
Registered Professional Engineer  
State of Colorado No. 37146

# Preliminary Stormwater Report

FOR

Ponderosa Community Stabilization Project

AT

**4475 BROADWAY  
BOULDER, CO 80304**

FOR

Trestle Strategy Group

1319 SPRUCE STREET SUITE 207 BOULDER, CO 80302



**JVA, Inc.**

**Consulting Engineers**

1319 Spruce Street

Boulder, CO 80302

(303) 444-1951

JVA, Inc. Project No. 2408c

July 29, 2019

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Appendix A – Mapping

Appendix B – Calculations

Appendix C – Report References

Figure 1 – Historic Drainage Map

Figure 2 – Drainage Map

# PRELIMINARY STORMWATER REPORT

## PONDEROSA COMMUNITY STABILIZATION PROJECT

### I. General Location and Description

---

#### A. Location

The City of Boulder is proposing a phased affordable housing project at 4475 Broadway in Boulder, Colorado. The subject property is approximately 6.28-acres and is located on the Northeast Quarter of Section 13, Township 1 North, Range 71 West of the 6<sup>th</sup> Principle Meridian in the City and County of Boulder, State of Colorado. More specifically, the site is bound by Fourmile Canyon Creek to the north, residential development to the west, Cherry Avenue and commercial development to the south, and North Broadway to the east. A vicinity map depicting the location of the property is included in Appendix A.

#### B. Description

4475 Broadway Blvd is located within the Fourmile Canyon Creek 500-year floodplain and 100-year floodplain as identified on both City of Boulder Flood Hazard mapping and Federal Emergency Management Agency (FEMA) mapping. A copy of a portion of the above referenced flood maps are included in the Appendix A. Fourmile Canyon Creek is located approximately 50-feet north of the site, while Wonderland Creek is located 0.42 miles to the south.

The existing site is developed with mobile residential units, dirt/gravel drives, and concrete walks. There is no existing onsite detention, water quality facilities and storm infrastructure for the existing developed area. The overall imperviousness is 33.2%. The attached Figure 1, Historic Drainage Map, depicts the extents of the property study area, locations of the buildings, parking lots, and other drainage surfaces within the proposed site.

The proposed Ponderosa Community Stabilization project includes a multi-phase residential development, starting with utility infrastructure, access drives, paved streets, and parking. Additional new residential buildings and drives are proposed to be built in future phases in coordination with the community. Other items that will support the residential development will include sidewalks, multi-use path, and landscape improvements.

In general, the site drains northwest to the southeast. Figure 1, Historic Drainage Map, summarizes the current drainage conditions. The site will require new stormwater and water quality infrastructure to capture site runoff from the subject property.

The preliminary drainage design will generally follow historic patterns with runoff from the site flowing overland to the south. Drainage conveyance will be provided by new storm infrastructure and detained by two new detention and water quality facilities. Refer to Figure 2, Developed Drainage Map, for locations of the proposed storm infrastructure on the site.

## C. Project Phasing

This *Preliminary Stormwater Report* focuses on the final phase of the proposed Ponderosa Community Stabilization project. All stormwater infrastructure and detention basins evaluated in this report are sized for the final completed project. The project will be divided into multiple phases and developed over time with all stormwater quality and detention infrastructure completed in Phase 1. The detailed design of ancillary stormwater infrastructure for subsequent phases will be coordinated with the city during the individual, phased Technical Document Review processes.

Phase 1 will primarily focus on the installation of utilities (water, sanitary sewer), stormwater quality and detention infrastructure, and related street improvements. Phase 1 street improvements include the north/south roadways, a temporary paved access along the north sides of the site to ensure fire access during the initial phase, and the new intersection at Cherry Avenue and 10<sup>th</sup> Street. Phase 1 also includes the proposed new homes to be constructed on the west edge of the property and related infrastructure. Phase 1 will also include temporary swales to convey stormwater to stormwater quality and detention facilities. Stormwater quality and detention facilities will be built out to fit the larger stormwater values of Phase 1 and final build out with outlet structures installed and modified between phases. The sanitary sewer main and water main, as well as related service connections, are located in a way to ensure existing mobile homes can connect to the new water and sanitary sewer system while ensuring that the future new homes can use the same infrastructure and minimize future demolition work in the roadways.

The majority of stormwater quality and detention infrastructure will be installed in Phase 1. The location of new homes and the timing of connecting east/west roads will be dependent upon different factors, including timing of existing mobile homes sites becoming available in the future. In phases following Phase 1, temporary swales will be replaced with concrete surface and underground storm infrastructure. A phasing diagram showing mobile home removal needs is included in Appendix A.

At the final phase of the project, all stormwater quality and detention infrastructure included in this report will be installed.

## II. Historic Drainage

---

### A. Major Drainage Basin Description

The Wonderland Basin is the major storm basin that contains the entire project site. Storm water runoff is conveyed by overland flow to the south and southeast corner of the site. Overland flow drains to Cherry Avenue and the neighboring commercial development and is conveyed into the North Broadway right-of-way (ROW) and adjacent public storm infrastructure.

### B. Site Drainage and Existing Facilities

The existing 6.28-acres of site is partially developed and lies between the elevations 5551 to 5530 on the City of Boulder datum (NAVD 88). Slopes across the site range from approximately 1% to 5% and generally shed water from the midline of the site and conveyed northwest to the southeast.

Much of the soil found on the site are classified by the Natural Resources Conservation Services (NRCS) as “NdB” and “TcC”, or Nederland very cobbly sandy loam and Valmont cobbly clay loam and classified in the hydrologic soils group (HSG) B and C, respectively. Soils in HSG B have a moderate infiltration rate when thoroughly wet. These soils transmit water moderate to well drained with fine and coarse textured soils. Soils in HSG C have a slow infiltration rate when thoroughly wet. These soils transmit water slowly with moderately fine and fine coarse texture soils. A copy of the NRCS soils classification map is included in the Appendix A.

The existing site is divided into four minor basins that flow offsite to public right-of-way or overland to neighboring properties. The basin delineation is shown on Figure 1, Historic Drainage Map with corresponding design points. The basin descriptions are as follows:

- H1 sub-basin is largest portion of the site on the east. Runoff from H1 is conveyed via dirt and gravel roads with sheetflow moving generally northwest to the southeast. Ponding occurs at the southeast portion of the site and flows on to the neighboring commercial development before flowing to an inlet than connects to an 18-inch storm pipe within Broadway. Any runoff that does not make it into this inlet will sheetflow into North Broadway ROW and adjacent storm infrastructure at the intersection of Violet and Broadway.
- H2 sub-basin is the remaining portion of the site to the west. Runoff from H2 is conveyed via dirt and gravel roads with sheetflow moving generally north to the south offsite into the Cherry Avenue ROW and adjacent stormwater infrastructure.
- H3 and H4 are offsite basins that flow to Fourmile Canyon Creek and North Broadway ROW, respectively.

Table 1 below presents a summary of the calculated historic peak flows for Ponderosa site.

**Table 1: Historic Peak Flows**

Basin	Design Point	Area (acre)	Impervious (%)	2-Year Flow (cfs)	100-year Flow (cfs)
H1	1	3.87	33.1	3.28	18.86
H2	2	1.88	27.8	1.45	9.17
H3	3	0.21	72.0	0.56	1.92
H4	4	0.33	40.0	0.47	2.30

### III. Proposed (Developed) Drainage

Refer to Historic Drainage Map, Figure 1, and Developed Drainage Map, Figure 2, for basin comparison of existing and developed basin conditions. The developed condition evaluated was assumed to be

#### A. Drainage Design Criteria

The proposed storm drainage facilities for the project area are designed to comply with the “City of Boulder Design and Construction Standards”, 2000 Edition, and the Urban Drainage and Flood

Control District's (UDFCD) Urban Storm Drainage Criteria Manual (USDCM), revised August 2018.

## B. Hydrologic Method and Design Storm Frequencies

Design storm recurrence intervals for this project are consistent with the City of Boulder requirements for residential areas; the minor storm refers to the 2-year event and the major storm refers to the 100-year event. Detention facilities were designed for the 10-year event based on the FAA methods.

The Rational Method ( $Q=CIA$ ) was used to determine the storm runoff ( $Q$ ) from the site, with composite runoff coefficients ( $C$ ) and contributing areas ( $A$ ) given for design points in sub-basins. Intensities ( $I$ ) were determined using the Time-Intensity-Frequency Curves for Boulder, Colorado (Figure 7-1) and a calculated Time of Concentration ( $t_c$ ). Post-development Time of Concentration calculations for each sub-basin, corresponding rainfall intensities, and composite runoff coefficients for each sub-basin are provided in Appendix B.

Detailed calculations for the drainage design will be included with the *Final Stormwater Report*. The design for the onsite storm system for Ponderosa will be developed and complete drainage design plans and details will be included in the final engineering plans which will require City of Boulder approval prior to issuance of a development permit.

## C. Proposed Site Basins

As shown in the attached Figure 2- Developed Drainage Plan, the entire site was analyzed to determine the proposed runoff from the total developed site area. The proposed site was divided into four sub-basins. The onsite sub-basins (A1, A2) will outfall into two new detention basins located along the south side of the site, which include water quality for the two offsite basins (Z3 and Z4). Refer to Figures 1 and Figure 2, Historic and Developed Drainage maps for basin delineations. Rational method calculations for each individual sub-basin described below can be found in the Appendix of this report.

- Basin A1 corresponds to Design Point (DP) 1. Basin A1 boundary generally conforms with historic basin H1, with a slightly reduced area. Basin A1 runoff is conveyed from roofs, paved overland flow, concrete pans, storm infrastructure, and into a new east stormwater quality and detention facility. A new detention facility will detain runoff for the 10-year and 100-year storm events including water quality capture volume (WQCV) for Basin A1. See Appendix B for Basin rational calculations. A new 18" RCP pipe will be installed with existing utility easement to connect to the North Broadway stormwater infrastructure. The detention pond will be sized to detain additional stormwater flows above Basin H1's allowable release rate to ensure that flows leaving the stormwater and quality basins can be conveyed by existing stormwater infrastructure within North Broadway. It is intended that all stormwater flows from the 100-year storm event and lesser storms will be conveyed through underground stormwater infrastructure.
- Basin A2 corresponds to DP 2. Basin A2 generally conforms with historic basin H2 with an increased area. Basin A2 runoff is conveyed from roof drains, paved overland flow,

concrete pans, and proposed stormwater infrastructure into a new east detention facility. The new detention facility is designed for a 10-year storm event including the WQCV for Basin A2. See Appendix B for Basin rational calculations. A new 18” RCP pipe will connect to the existing Cherry Ave 36” RCP pipe stormwater infrastructure. Historic release rates from Basin A2 were captured by this Cherry Ave stormwater infrastructure, and preliminary conveyance analysis determines that the allowable release rate matching the Historic Basin H1 release rate will account for approximately 25% of the pipes full capacity. It is intended that all stormwater flows from the 100-year storm event and lesser storms will be conveyed through underground stormwater infrastructure.

- Basin Z3 corresponds to DP 3. Z3 generally conforms with historic basin H3. Basin Z3 runoff sheetflows into Fourmile Canyon Creek. There is no storm infrastructure located on this portion of the site.
- Basin Z4 corresponds to DP 4. Basin Z4 will remain as an undeveloped portion of Basin H4. Basin Z4 runoff sheetflows into Fourmile Canyon Creek where it ultimately conveys into the Wonderland Creek Basin.

Table 2 below presents a summary of the calculated developed peak flows for Ponderosa Annexation.

**Table 2: Developed Peak Flows**

Basin	Design Point	Area (acre)	Impervious (%)	2-Year Flow (cfs)	100-year Flow (cfs)
A1	1	2.64	55.3	3.93	16.79
A2	2	3.15	45.3	3.31	15.90
Z3	3	0.21	63.4	0.50	1.89
Z4	4	0.36	2.9	0.14	1.98

Table 3 below presents a summary of the calculated developed peak flows for Ponderosa Annexation Phase 1.

**Table 3: Developed Peak Flows – Phase 1**

Basin	Design Point	Area (acre)	Impervious (%)	2-Year Flow (cfs)	100-year Flow (cfs)
A1a	1	2.64	40.7	2.84	14.55
A2a	2	3.15	46.7	3.39	16.07
Z3	3	0.21	63.4	0.50	1.89
Z4	4	0.36	2.9	0.14	1.98

#### D. Runoff and Stormwater Quality Enhancement Facilities

Overall, the imperviousness of the entire 6.28-acres site will be increased from historic condition of 33.2% to proposed condition of 47.6%. The proposed detention basins will be designed in accordance with City of Boulder and UDFCD criteria and sized to treat developed flows from sub-basins A1, A2, Z3, and Z4. Stormwater quality enhancement will be included in the detention

facility design to control the release of the water quality capture volume (WQCV) to a 40-hour drain time. Sizing of the stormwater quality and detention facilities will be generated through the larger of phase calculations, and outlet structures will be modified prior to the completion of the phases for stormwater quality and detention accuracy. Calculations for peak flow rates and design volumes can be found in Appendix B and summarized as a table in Figure 2.

## IV. Stormwater Management Plan

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The Stormwater Management Plan (SWMP) will be included in the final engineering plans, with all structural and non-structural BMPs shown as required.

### A. Structural BMPs

Temporary structural erosion control features will be established during overlot grading and prior to the building construction. All erosion control measures will be maintained until vegetation becomes established. Vehicle tracking control and sediment control logs BMPs will be included on the construction plans. Silt fencing will be installed at critical locations on the site with respect to existing and proposed drainage. The seed mix will be provided in the SWMP reference.

### B. Non-Structural BMPs

Non-Structural erosion controls, including project schedule, surface roughening and other pollution prevention measures, will be detailed in the construction activities of the SWMP. Permanent, perennial, native seeding will be established onsite in locations specified by the SWMP and Landscape Architect.

## V. Floodplain Development Permit

---

The Fourmile Canyon Creek 100-year floodplain overlays the majority of the existing site, with a west-central portion of the site out of the 100-year floodplain and in the 500-year floodplain. The 100-year base flood water surface elevations have been interpolated and analyzed to determine which modular homes have a finish floor elevation (FFE) below the base flood elevation (BFE), between the BFE and the flood protection elevation (FPE), and above the FPE, and is included in Appendix A – Floodplain Analysis Figure. One modular home within the 100-year floodplain was found to be below the FPE but above the BFE. No substantial improvements are proposed to the existing mobile home; therefore, no improvements are required per FEMA and City of Boulder. For all new homes, it is recommended to provide flood protection improvements to minimum elevation of the FPE.

The proposed new residential units will be designed with raised finished floor elevations per the City's floodplain regulations. Any improvements located in the floodplain will be designed per City Floodplain Development Standards, and a Floodplain Development Permit will be required prior to final approval. Floodplain development permits will be obtained during the design process and prior to construction.

## VI. Wetland Impacts

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There are wetlands adjacent to the site to the north along Fourmile Canyon Creek. No impact to wetland facilities are proposed with the development of the site.

## VII. Irrigation Ditches

---

There are no known irrigation ditches on the Ponderosa Annexation property. The developed runoff does not conflict with any known irrigation ditches. Therefore, no known impacts are expected from the proposed development. Additional details will be provided at Technical Document Review.

## VIII. Conclusion

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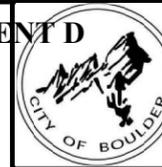
The new drainage facilities for the Ponderosa Community Stabilization Project will be designed in accordance with the “City of Boulder Design and Construction Standards”, 2000 Edition. Stormwater from the proposed development will include storm water quality enhancement before being released to existing storm systems in Broadway and Cherry Avenue. No adverse effects are anticipated downstream of the site with this development.

The referenced drainage maps, Figure 1, 2 and 2a, depict the drainage design points, developed runoff basins, and configuration of the proposed storm drainage.

## REFERENCES

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1. “City of Boulder Design and Construction Standards,” 2000 Edition.
2. “Urban Storm Drainage Criteria Manual,” Urban Drainage and Flood Control District, updated August 2018.
3. Web Soil Survey, Natural Resources Conservation Service, United State Department of Agriculture, Online at <http://websoilsurvey.nrcs.usda.gov>, accessed February 14, 2019.
4. FEMA Flood Map Service Center, Online at <https://msc.fema.gov/portal>, accessed February 14, 2019.
5. City of Boulder Flood Hazard Mapping, Online at <http://gisweb.bouldercolorado.gov/flood-zones>, accessed February 14, 2019.



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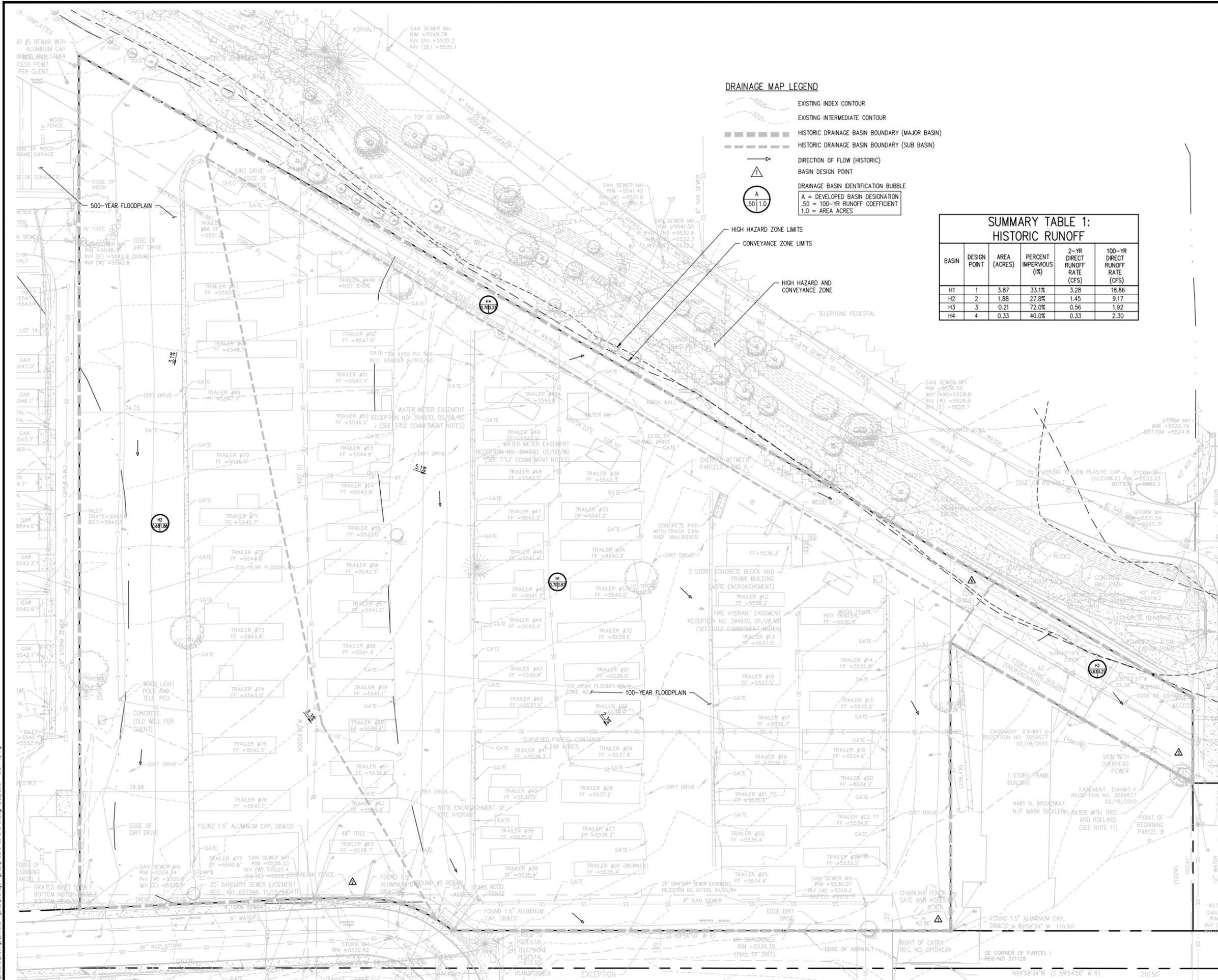
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**DRAINAGE MAP LEGEND**

- EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- HISTORIC DRAINAGE BASIN BOUNDARY (MAJOR BASIN)
- HISTORIC DRAINAGE BASIN BOUNDARY (SUB BASIN)
- DIRECTION OF FLOW (HISTORIC)
- BASIN DESIGN POINT
- DRAINAGE BASIN IDENTIFICATION BUBBLE
- A = DEVELOPED BASIN DESIGNATION
- .50 = 100-YR RUNOFF COEFFICIENT
- 1.0 = AREA ACRES

**SUMMARY TABLE 1:  
HISTORIC RUNOFF**

BASIN	DESIGN POINT	AREA (ACRES)	PERCENT IMPERVIOUS (%)	2-YR DIRECT RUNOFF RATE (CFS)	100-YR DIRECT RUNOFF RATE (CFS)
H1	1	3.87	33.1%	3.28	18.86
H2	2	1.88	27.8%	1.45	9.17
H3	3	0.21	72.0%	0.56	1.92
H4	4	0.33	40.0%	0.33	2.30



NO. DATE DESD. DWN

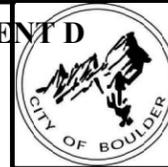
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CHECKED BY: CRH/SBP  
JOB #: 2408.3c  
DATE: 07/29/2019  
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PONDEROSA COMMUNITY STABILIZATION PROGRAM (LUR2019-00015) BOULDER, COLORADO

HISTORIC DRAINAGE FIGURE

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 Glenwood Springs • Denver

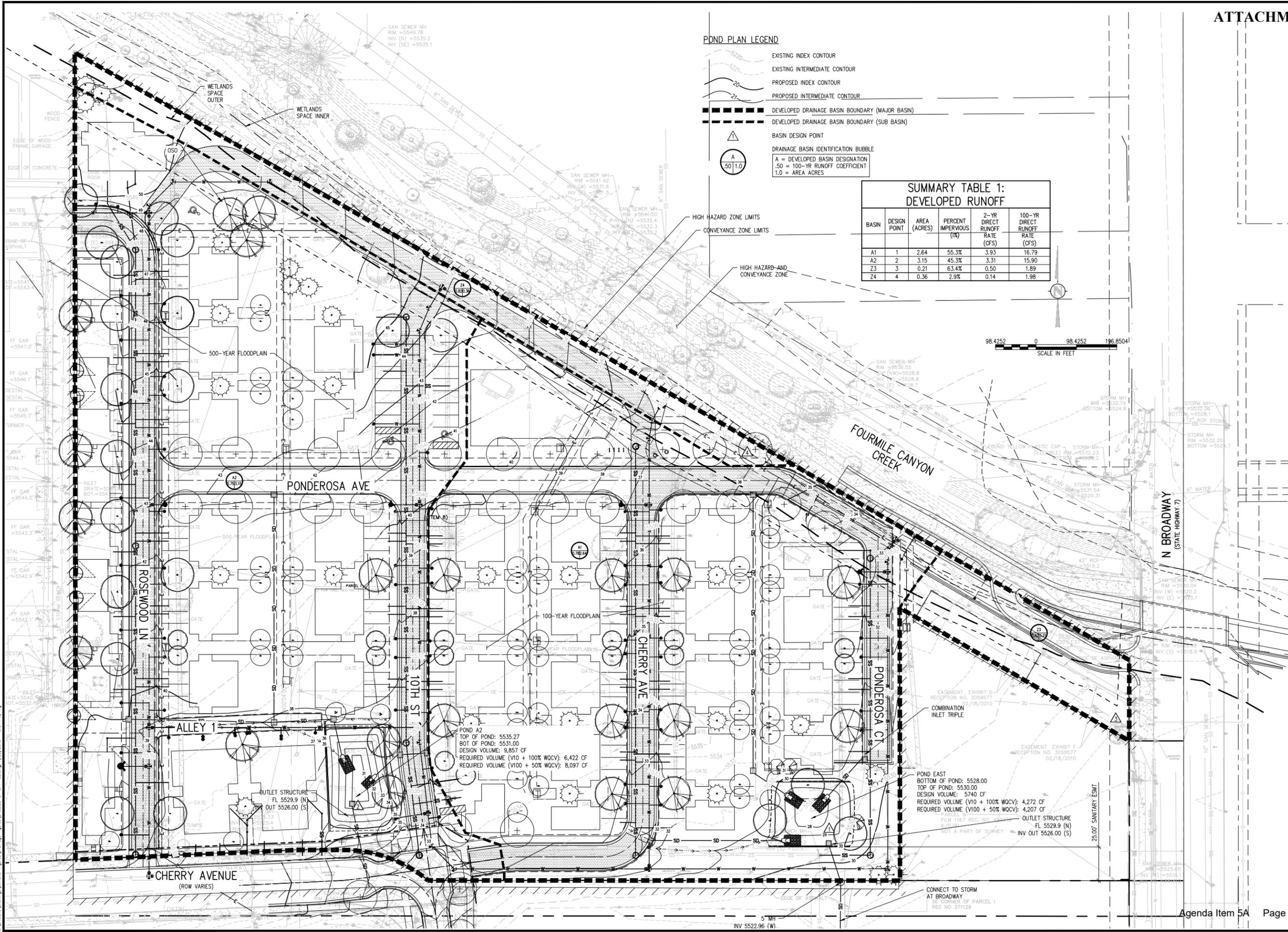
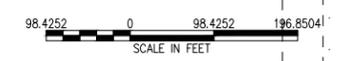
POND PLAN LEGEND

- EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- PROPOSED INDEX CONTOUR
- PROPOSED INTERMEDIATE CONTOUR
- DEVELOPED DRAINAGE BASIN BOUNDARY (MAJOR BASIN)
- DEVELOPED DRAINAGE BASIN BOUNDARY (SUB BASIN)
- BASIN DESIGN POINT
- DRAINAGE BASIN IDENTIFICATION BUBBLE

A = DEVELOPED BASIN DESIGNATION  
 .50 = 100-YR RUNOFF COEFFICIENT  
 1.0 = AREA ACRES

**SUMMARY TABLE 1:  
DEVELOPED RUNOFF**

BASIN	DESIGN POINT	AREA (ACRES)	PERCENT IMPERVIOUS (%)	2-YR DIRECT RUNOFF RATE (CFS)	100-YR DIRECT RUNOFF RATE (CFS)
A1	1	2.64	55.3%	3.93	16.79
A2	2	3.15	45.3%	3.31	15.90
Z3	3	0.21	63.4%	0.50	1.89
Z4	4	0.36	2.9%	0.14	1.98



POND A2  
 TOP OF POND: 5535.27  
 BOT OF POND: 5531.00  
 DESIGN VOLUME: 9,857 CF  
 REQUIRED VOLUME (V10 + 100% WQCV): 6,422 CF  
 REQUIRED VOLUME (V100 + 50% WQCV): 8,097 CF

POND EAST  
 BOTTOM OF POND: 5528.00  
 TOP OF POND: 5530.00  
 DESIGN VOLUME: 5740 CF  
 REQUIRED VOLUME (V10 + 100% WQCV): 4,272 CF  
 REQUIRED VOLUME (V100 + 50% WQCV): 4,207 CF

OUTLET STRUCTURE  
 FL 5529.9 (N)  
 INV OUT 5526.00 (S)

CONNECT TO STORM  
 AT BROADWAY  
 SE CORNER OF PARCEL 1  
 REC NO 371129

REVISION DESCRIPTION

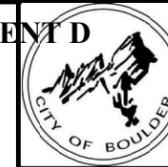
NO.	DATE	DESIGNED	DRAWN

DESIGNED BY: MGR/TRR  
 DRAWN BY: MGR/TRR  
 CHECKED BY: CRH/SBP  
 JOB #: 2408.3c  
 DATE: 07/29/2019  
 © JVA, INC.

PONDEROSA COMMUNITY STABILIZATION  
 PROGRAM (LUR2019-00015)  
 BOULDER, COLORADO

PROPOSED DRAINAGE FIGURE

SHEET NO.



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 Boulder, CO 80302 303.444.1951  
 www.jvajva.com  
 Boulder • Fort Collins • Winter Park  
 Glenwood Springs • Denver

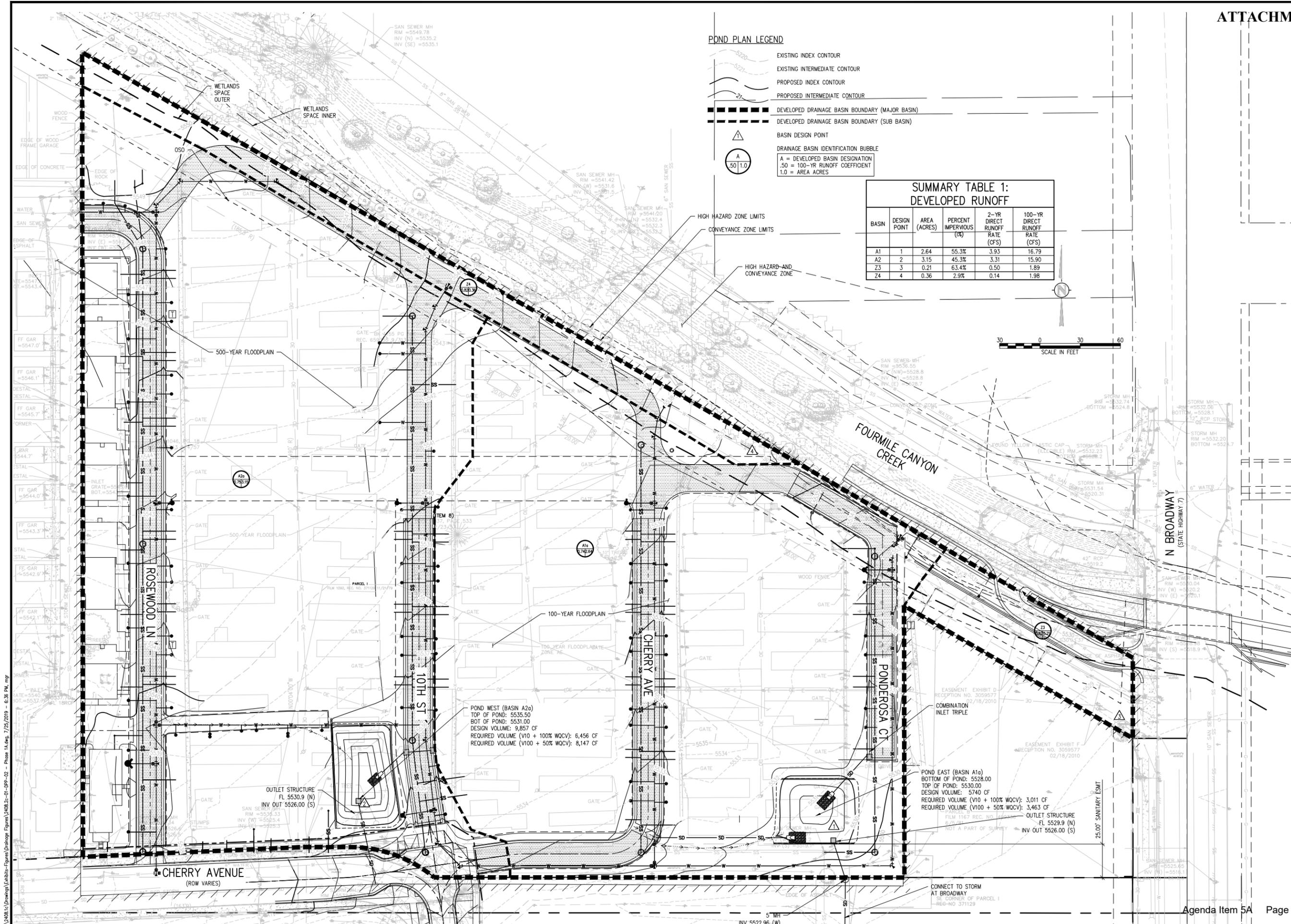
POND PLAN LEGEND

- EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- PROPOSED INDEX CONTOUR
- PROPOSED INTERMEDIATE CONTOUR
- DEVELOPED DRAINAGE BASIN BOUNDARY (MAJOR BASIN)
- DEVELOPED DRAINAGE BASIN BOUNDARY (SUB BASIN)
- BASIN DESIGN POINT
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SUMMARY TABLE 1:  
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Z3	3	0.21	63.4%	0.50	1.89
Z4	4	0.36	2.9%	0.14	1.98



NO. | DATE | DESIGNED BY | DWN

DESIGNED BY: MGR/TRR  
 DRAWN BY: MGR/TRR  
 CHECKED BY: CRH/SBP  
 JOB #: 2408.3c  
 DATE: 07/29/2019  
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PONDEROSA COMMUNITY STABILIZATION PROGRAM (LUR2019-00015)  
 BOULDER, COLORADO  
 PROPOSED DRAINAGE FIGURE - PHASE 1A

J:\2408.3c Drawings\Exhibits\Drainage Figures\2408.3c-01-DRP-02 - Phase 1A.dwg, 7/25/2019 - 6:38 PM, mgr

# APPENDIX A - MAPPING

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**PONDEROSA ANNEXATION DEVELOPMENT**

AT  
4475 BROADWAY.  
BOULDER, COLORADO 80304



**VICINITY MAP – NOT TO SCALE**

# National Flood Hazard Layer FIRMette



## Legend ATTACHMENT D

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- |                                    |  |   |
|------------------------------------|--|---|
| <b>SPECIAL FLOOD HAZARD AREAS</b>  |  | Without Base Flood Elevation (BFE)<br>Zone A, V, A99  |
|                                    |  | With BFE or Depth Zone AE, AO, AH, VE, AR   |
|                                    |  | Regulatory Floodway   |
| <b>OTHER AREAS OF FLOOD HAZARD</b> |  | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X |
|                                    |  | Future Conditions 1% Annual Chance Flood Hazard Zone X  |
|                                    |  | Area with Reduced Flood Risk due to Levee. See Notes. Zone X  |
|                                    |  | Area with Flood Risk due to Levee Zone D  |
| <b>OTHER AREAS</b>                 |  | Area of Minimal Flood Hazard Zone X   |
|                                    |  | Effective LOMRs   |
|                                    |  | Area of Undetermined Flood Hazard Zone D  |
| <b>GENERAL STRUCTURES</b>          |  | Channel, Culvert, or Storm Sewer  |
|                                    |  | Levee, Dike, or Floodwall   |
| <b>OTHER FEATURES</b>              |  | Cross Sections with 1% Annual Chance Water Surface Elevation  |
|                                    |  | Water Surface Elevation   |
|                                    |  | Coastal Transect  |
|                                    |  | Base Flood Elevation Line (BFE)   |
|                                    |  | Limit of Study  |
|                                    |  | Jurisdiction Boundary   |
|                                    |  | Coastal Transect Baseline   |
|                                    |  | Profile Baseline  |
|                                    |  | Hydrographic Feature  |
| <b>MAP PANELS</b>                  |  | Digital Data Available  |
|                                    |  | No Digital Data Available   |
|                                    |  | Unmapped  |

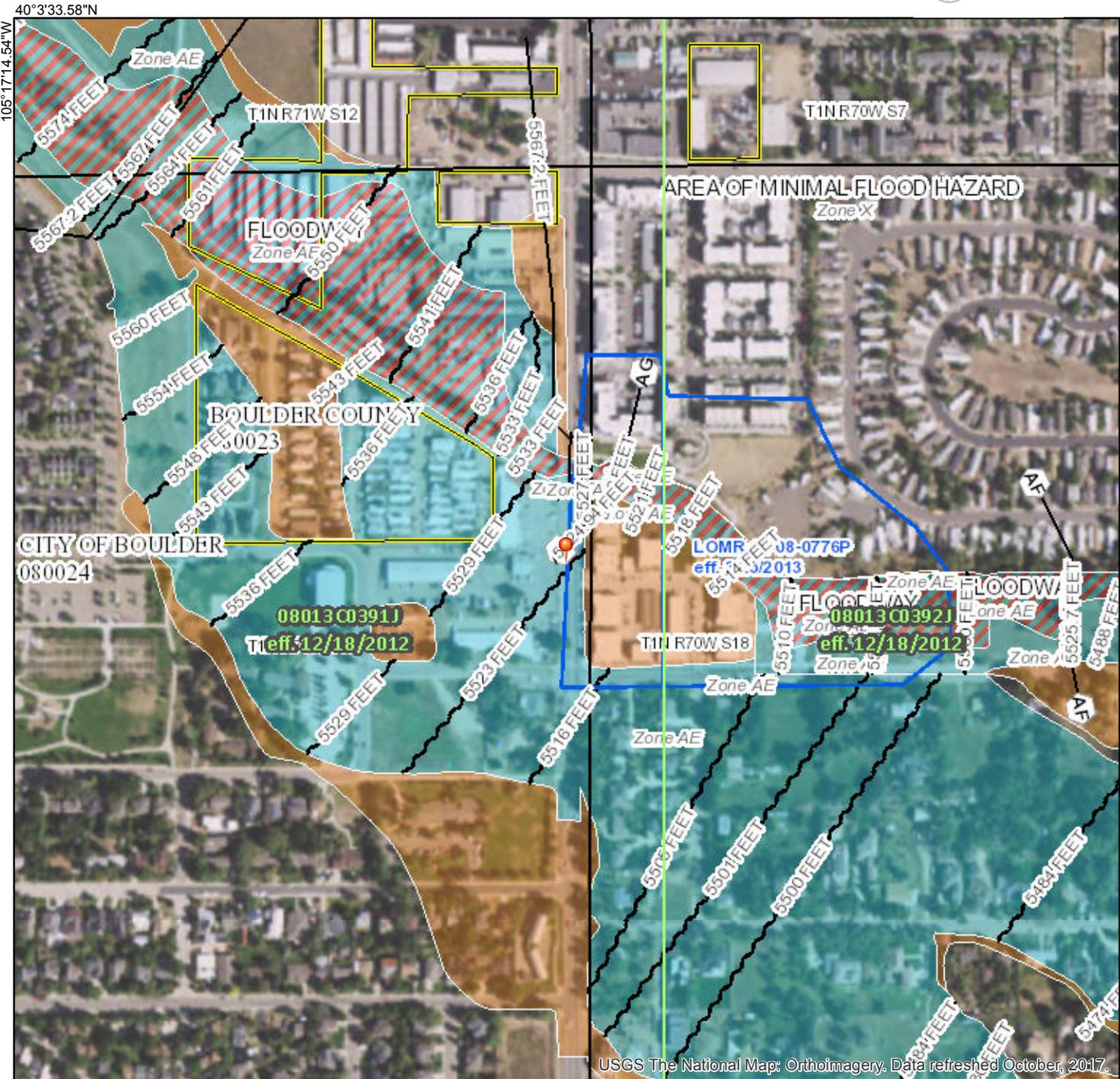


The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/14/2019 at 5:12:14 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



40°3'33.58"N  
105°17'14.54"W

0 250 500 1,000 1,500 2,000 Feet 1:6,000

USGS The National Map: Orthoimagery. Data refreshed October, 2017.

105°16'37.08"W



d Hazard Zones





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Boulder • Fort Collins • Winter Park  
Glenwood Springs • Denver

LEGEND:

- BFE = BASE FLOOD ELEVATION
  - FPE = FLOOD PROTECTION ELEVATION (100-YR BFE + 2.0')
  - FINISHED FLOOR ABOVE FPE
  - FINISHED FLOOR BETWEEN FPE AND 100-YR BFE
  - FINISHED FLOOR BETWEEN FPE AND 100-YR BFE (WITHIN THE 500-YR FLOODPLAIN)
  - FINISHED FLOOR BELOW 100-YR BFE
  - 100-YR FLOODPLAIN ZONE
  - 500-YR FLOODPLAIN ZONE
- NOTE: ELEVATIONS ARE IN NAVD88 VERTICAL DATUM



NO.	DATE	DESIGNED BY	DESCRIPTION

DESIGNED BY: MGR/TRR  
 DRAWN BY: MGR/TRR  
 CHECKED BY: CRHSBP  
 JOB #: 2408.3c  
 DATE: 02/19/2019  
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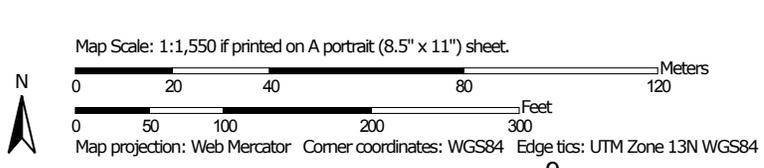
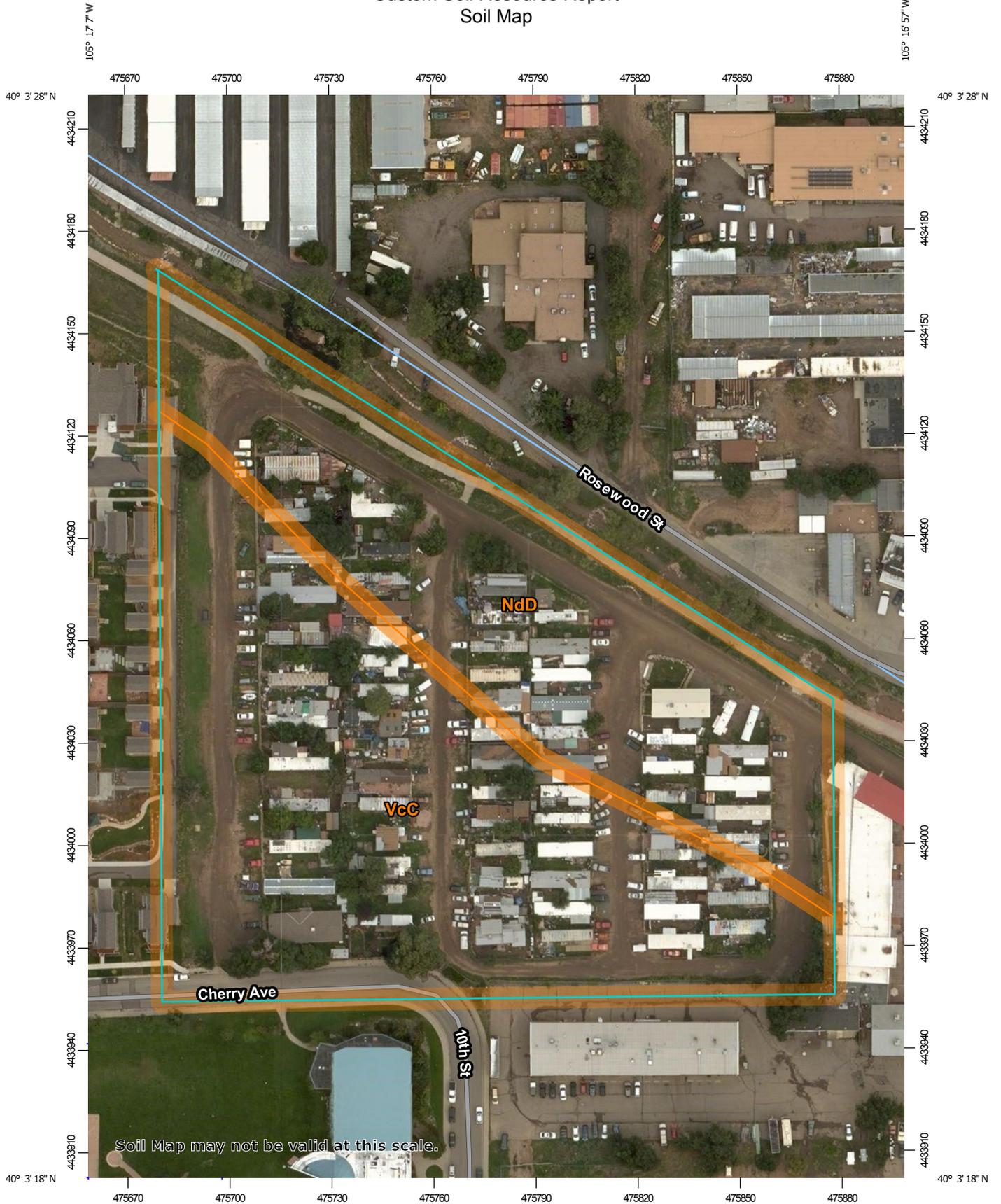
**PONDEROSA COMMUNITY STABILIZATION PROGRAM  
 BOULDER, COLORADO  
 FLOOD PROTECTION ANALYSIS FIGURE**

SHEET NO.  
**FIG-1**

J:\2408.3c\Drawings\Exhibits\Figures\Figures.dwg, 2/14/2019 - 3:45 PM, trr

Custom Soil Resource Report  
Soil Map

ATTACHMENT D



**MAP LEGEND**

**Area of Interest (AOI)**

 Area of Interest (AOI)

**Soils**

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

**Special Point Features**

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

**Water Features**

 Streams and Canals

**Transportation**

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

**Background**

 Aerial Photography

**MAP INFORMATION**

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Boulder County Area, Colorado  
 Survey Area Data: Version 14, Oct 10, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 30, 2014—Sep 18, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
NdD	Nederland very cobbly sandy loam, 1 to 12 percent slopes	3.0	40.5%
VcC	Valmont cobbly clay loam, 1 to 5 percent slopes	4.4	59.5%
<b>Totals for Area of Interest</b>		<b>7.4</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

## Custom Soil Resource Report

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Boulder County Area, Colorado

### NdD—Nederland very cobbly sandy loam, 1 to 12 percent slopes

#### Map Unit Setting

*National map unit symbol:* jps7  
*Elevation:* 5,500 to 6,500 feet  
*Mean annual precipitation:* 15 to 20 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 140 to 155 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Nederland and similar soils:* 80 percent  
*Minor components:* 20 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Nederland

##### Setting

*Landform:* Terraces, alluvial fans  
*Landform position (three-dimensional):* Base slope, tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Cobbly loamy alluvium

##### Typical profile

*H1 - 0 to 7 inches:* very cobbly sandy loam  
*H2 - 7 to 20 inches:* very cobbly sandy clay loam  
*H3 - 20 to 60 inches:* very cobbly sandy loam

##### Properties and qualities

*Slope:* 1 to 12 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.20 to 2.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Low (about 3.9 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 6s  
*Hydrologic Soil Group:* B  
*Ecological site:* Cobbly Foothills (R048AY346CO)  
*Hydric soil rating:* No

#### Minor Components

##### Valmont

*Percent of map unit:* 20 percent  
*Hydric soil rating:* No

**VcC—Valmont cobbly clay loam, 1 to 5 percent slopes****Map Unit Setting**

*National map unit symbol:* jpsy  
*Elevation:* 4,900 to 5,500 feet  
*Mean annual precipitation:* 12 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 140 to 155 days  
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Valmont and similar soils:* 100 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Valmont****Setting**

*Landform:* Terraces, fan remnants  
*Landform position (three-dimensional):* Base slope, tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Gravelly and cobbly loamy alluvium

**Typical profile**

*H1 - 0 to 8 inches:* cobbly clay loam  
*H2 - 8 to 22 inches:* clay loam, clay  
*H2 - 8 to 22 inches:* very gravelly loam, very gravelly sandy loam  
*H3 - 22 to 60 inches:*  
*H3 - 22 to 60 inches:*

**Properties and qualities**

*Slope:* 1 to 5 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 10 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water storage in profile:* High (about 11.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3e  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* C  
*Ecological site:* Cobbly Foothills (R048AY346CO)

Custom Soil Resource Report

Absence of an entry indicates that the data were not estimated. The asterisk '\*' denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007(<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Engineering Properties—Boulder County Area, Colorado														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
NdD—Nederland very cobbly sandy loam, 1 to 12 percent slopes														
Nederland	80	B	0-7	Very cobbly sandy loam	GC, GC-GM, SC, SC-SM	A-1, A-2	0-13- 25	30-45-60	45-68-90	40-63-85	25-43-60	15-25-35	25-28-30	5-8 -10
			7-20	Very cobbly sandy clay loam	GC, GC-GM, SC, SC-SM	A-1, A-2, A-4, A-6	0-13- 25	50-60-70	45-68-90	40-63-85	30-53-75	15-30-45	25-30-35	5-10-15
			20-60	Very cobbly sandy loam	GC, GC-GM, SC, SC-SM	A-1, A-2	0-13- 25	50-60-70	45-68-90	40-63-85	25-43-60	15-25-35	25-28-30	5-8 -10
VcC—Valmont cobbly clay loam, 1 to 5 percent slopes														
Valmont	100	C	0-8	Cobbly clay loam	CL	A-6	0- 0- 0	15-20-25	75-83-90	70-78-85	65-75-85	50-60-70	30-35-40	10-15-20
			8-22	Clay loam, clay	CL	A-6, A-7	0- 0- 0	0- 3- 5	85-93-100	80-90-100	75-88-100	60-78-95	35-43-50	15-20-25
			22-60	Very gravelly loam, very gravelly sandy loam	GC, GC-GM, GM, GW-GM	A-1, A-2, A-4	0- 3- 5	10-13-15	35-45-55	30-40-50	20-35-50	10-25-40	20-25-30	NP-5-10



# APPENDIX B - CALCULATIONS

---



**JVA Incorporated**  
 1319 Spruce Street  
 Boulder, CO 80302  
 Ph: (303) 444 1951

Job Name: Ponderosa MHP  
 Job Number: 2408.3c  
 Date: 7/25/19  
 By: TRR / MGR

	I%	C2	C5	C10	C100
Streets Paved	100%	0.87	0.88	0.90	0.93
Concrete Drives/Walks	96%	0.85	0.87	0.90	0.92
Roof	90%	0.80	0.85	0.90	0.90
Gravel	7%	0.15	0.25	0.35	0.65
Landscaping (B soil)	0%	0.00	0.10	0.20	0.50
Landscaping (C/D soil)	0%	0.10	0.20	0.30	0.60
Playground	13%	0.20	0.30	0.40	0.70
Railyard	40%	0.40	0.45	0.50	0.70

**Ponderosa MHP**

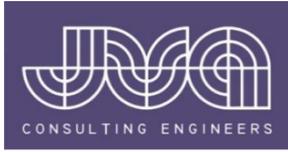
**Historic Runoff Coefficient & Time of Concentration Calculations**

Location: Boulder

Minor Design Storm:	2
Major Design Storm:	100
Soil Type:	C/D

Basin Design Data												I (%)	Runoff Coeff's				Initial Overland Time (t <sub>i</sub> )			Travel Time (t <sub>t</sub> )					t <sub>c</sub> Comp	t <sub>c</sub> Urbanized Check ON		t <sub>c</sub> Final		
Basin Name	Design Point	A <sub>paved streets</sub> (sf)	A <sub>drives/co nc</sub> (sf)	A <sub>roof</sub> (sf)	A <sub>gravel</sub> (sf)	A <sub>plygnd</sub> (sf)	A <sub>railyard</sub> (sf)	A <sub>iscape (B soil)</sub> (sf)	A <sub>iscape (C/D soil)</sub> (sf)	A <sub>Total</sub> (sf)	A <sub>Total</sub> (ac)		Imp (%)	C2	C5	C10	C100	Upper most Length (ft)	Slope (%)	t <sub>i</sub> (min)	Length (ft)	Slope (%)	Type of Land Surface	K		Velocity (fps)	t <sub>t</sub> (min)		Time of Conc t <sub>t</sub> + t <sub>c</sub> = t <sub>c</sub>	Total Length (ft)
H1	1		280	36,257			57,504		74,702	168,743	3.87	33.1%	0.35	0.43	0.50	0.70	300	5.1%	12.2	443	3.2%	Nearly bare ground	10	1.8	4.1	16.3	743	14.1	14.1	
H2	2			12,052			29,827		40,061	81,940	1.88	27.8%	0.31	0.39	0.46	0.68	250	3.1%	13.9	375	3.3%	Nearly bare ground	10	1.8	3.4	17.4	625	13.5	13.5	
H3	3	3,810		2,140			2,470		921	9,341	0.21	72.0%	0.65	0.69	0.74	0.83	57	2.0%	4.4	0	0.0%	Paved areas & shallow paved swales	20	0.0	0.0	4.4	57	10.3	5.0	
H4	4						14,171			14,171	0.33	40.0%	0.40	0.45	0.50	0.70	30	1.0%	6.4	40	7.0%	Paved areas & shallow paved swales	20	5.3	0.1	6.5	70	10.4	6.5	
										0	0.00												20				0	10.0		
TOTAL SITE		3,810	280	50,449	0	0	103,972	0	115,684	274,195	6.29	33.2%	0.35	0.42	0.50	0.70														

Basin Name	Design Point	Time of Conc (tc)	Runoff Coeff's				Rainfall Intensities (in/hr)				Area		Flow Rates (cfs)			
			C2	C5	C10	C100	2	5	10	100	A <sub>Total</sub> (sf)	A <sub>Total</sub> (ac)	Q2	Q5	Q10	Q100
H1	1	14.1	0.35	0.43	0.50	0.70	2.39	3.54	4.73	6.97	168,743	3.87	3.28	5.83	9.13	18.86
H2	2	13.5	0.31	0.39	0.46	0.68	2.46	3.63	4.86	7.16	81,940	1.88	1.45	2.64	4.22	9.17
H3	3	5.0	0.65	0.69	0.74	0.83	4.00	5.70	7.45	10.80	9,341	0.21	0.56	0.85	1.17	1.92
H4	4	6.5	0.40	0.45	0.50	0.70	3.60	5.13	6.90	10.10	14,171	0.33	0.47	0.75	1.12	2.30
0	0										0	0.00				
TOTAL SITE											274,195	6.29	5.75	10.07	15.64	32.25



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 1319 Spruce Street  
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 Ph: (303) 444 1951

Job Name: Ponderosa MHP  
 Job Number: 2408.3c  
 Date: 7/25/19  
 By: TRR / MGR

	I%	C2	C5	C10	C100
Streets Paved	100%	0.87	0.88	0.90	0.93
Concrete Drives/Walks	96%	0.85	0.87	0.90	0.92
Roof	90%	0.80	0.85	0.90	0.90
Gravel	7%	0.15	0.25	0.35	0.65
Landscaping (B soil)	0%	0.00	0.10	0.20	0.50
Landscaping (C/D soil)	0%	0.10	0.20	0.30	0.60
Playground	13%	0.20	0.30	0.40	0.70
Railyard	40%	0.40	0.45	0.50	0.70

**Ponderosa MHP**  
**Composite Runoff Coefficient Calculations**

Location: Boulder  
 Minor Design Storm: 2  
 Major Design Storm: 100  
 Soil Type: C/D

Basin Design Data													Runoff Coeff's			
	I (%) =	100%	96%	90%	7%	13%	40%	0%	0%			I (%)	C2	C5	C10	C100
Basin Name	Design Point	A <sub>paved streets</sub> (sf)	A <sub>drives/conc</sub> (sf)	A <sub>roof</sub> (sf)	A <sub>gravel</sub> (sf)	A <sub>plygnd</sub> (sf)	A <sub>railyard</sub> (sf)	A <sub>lscape (B soil)</sub> (sf)	A <sub>lscape (C/D soil)</sub> (sf)	A <sub>Total</sub> (sf)	A <sub>Total</sub> (ac)	Imp (%)				
A1	1	19,419	19,875	27,946					47,905	115,145	2.64	55.3%	0.53	0.59	0.65	0.78
A2	2	11,140	25,729	29,278					71,113	137,260	3.15	45.3%	0.45	0.52	0.59	0.75
Z3	3	3,810		2,140	2,470				900	9,320	0.21	63.4%	0.59	0.64	0.70	0.82
Z4	4		486						15,331	15,817	0.36	2.9%	0.12	0.22	0.32	0.61
TOTAL SITE		34,369	46,090	59,364	2,470	0	0	0	135,249	277,542	6.37	47.6%	0.47	0.53	0.60	0.76



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 By: TRR / MGR

**Ponderosa MHP**

**Time of Concentration Calculations**

Location: Boulder  
 Minor Design Storm: 2  
 Major Design Storm: 100  
 Soil Type: C/D

Sub-Basin Data				Initial Overland Time (t <sub>i</sub> )			Travel Time (t <sub>t</sub> ) t <sub>t</sub> =Length/(Velocity x 60)						t <sub>c</sub> Comp	t <sub>c</sub> Urbanized Check ON		t <sub>c</sub> Final
Basin Name	Design Point	A <sub>Total</sub> (ac)	C5	Upper most Length (ft)	Slope (%)	t <sub>i</sub> (min)	Length (ft)	Slope (%)	Type of Land Surface	C <sub>v</sub>	Velocity (fps)	t <sub>t</sub> (min)	Time of Conc t <sub>i</sub> + t <sub>t</sub> = t <sub>c</sub>	Total Length (ft)	t <sub>c</sub> =(L/180)+ 10 (min)	Min t <sub>c</sub>
A1	1	2.64	0.59	210	3.1%	9.2	325	3.0%	Paved areas & shallow paved swales	20	3.5	1.6	10.7	535	13.0	10.7
A2	2	3.15	0.52	239	2.8%	11.5	673	2.8%	Paved areas & shallow paved swales	20	3.3	3.4	14.8	912	15.1	14.8
Z3	3	0.21	0.64	57	2.0%	5.0	0	0.0%	Paved areas & shallow paved swales	20	0.0	0.0	5.0	57	10.3	5.0
Z4	4	0.36	0.22	30	1.0%	8.7	40	7.0%	Paved areas & shallow paved swales	20	5.3	0.1	8.8	70	10.4	8.8



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Job Name: Ponderosa MHP  
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 By: TRR / MGR

**Ponderosa MHP**

**Developed Storm Runoff Calculations**

Design Storm :

**100 Year**

Point Hour Rainfall (P<sub>1</sub>) : **2.50**

Basin Name	Design Point	Area (ac)	Direct Runoff				Total Runoff				Inlets				Pipe			Pipe/Swale Travel Time			Total Time (min)	Notes		
			Runoff Coeff	tc (min)	C*A (ac)	I (in/hr)	Q (cfs)	Total tc (min)	ΣC*A (ac)	I (in/hr)	Q (cfs)	Inlet Type	Q intercepted	Q carryover	Q bypass	Pipe Size (in) or equivalent	Pipe Material	Slope (%)	Pipe Flow (cfs)	Max Pipe Capacity (cfs)			Length (ft)	Velocity (fps)
A1	1	2.64	0.78	10.70	2.07	8.11	16.79	10.70	2.07	8.11	16.79													
A2	2	3.15	0.75	14.80	2.37	6.72	15.90	14.80	2.37	6.72	15.90													
Z3	3	0.21	0.82	5.00	0.17	10.80	1.89	5.00	0.17	10.80	1.89													
Z4	4	0.36	0.61	8.80	0.22	8.96	1.98	8.80	0.22	8.96	1.98													
											36.56													



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 By: TRR / MGR

**Ponderosa MHP**

**Developed Storm Runoff Calculations**

Design Storm :

**2 Year**

Point Hour Rainfall (P<sub>1</sub>) : **0.95**

Basin Name	Design Point	Area (ac)	Direct Runoff				Total Runoff				Inlets			Pipe				Pipe/Swale Travel Time			Total Time (min)	Notes		
			Runoff Coeff	tc (min)	C*A (ac)	I (in/hr)	Q (cfs)	Total tc (min)	ΣC*A (ac)	I (in/hr)	Q (cfs)	Inlet Type	Q intercepted	Q carryover	Q bypass	Pipe Size (in) or equivalent	Pipe Material	Slope (%)	Pipe Flow (cfs)	Max Pipe Capacity (cfs)			Length (ft)	Velocity (fps)
A1	1	2.64	0.53	10.70	1.40	2.81	3.93	10.70	1.40	2.81	3.93													
A2	2	3.15	0.45	14.80	1.43	2.32	3.31	14.80	1.43	2.32	3.31													
Z3	3	0.21	0.59	5.00	0.13	4.00	0.50	5.00	0.13	4.00	0.50													
Z4	4	0.36	0.12	8.80	0.04	3.14	0.14	8.80	0.04	3.14	0.14													



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## Ponderosa MHP

### Detention Pond Volume Calculations: FAA Procedure

Based on FAA Procedure, per Federal Aviation Agency "Airport Drainage" Manual

Drainage Basin **A1**  
 Design Storm **100 year**  
 Composite "C" Factor **0.78**  
 Basin Size **2.64**

#### Release Rate Calculations

Allowable Release Rate for Site **12.86 cfs** (Max Pipe Flow through outfall pipe)  
 Less Undetained Offsite Flows - **0.00 cfs**  


---

 Allowable Release Rate for Pond **12.86 cfs**

#### Rainfall Intensity Calculations

Point Hour Rainfall (P<sub>1</sub>) : **2.50**  
 Rainfall Intensity: BoulderIDF

#### Volume Calculations

Inflow Volume = C \* I \* A \* time (sec)  
 Outflow Volume = Allowable Release Rate \* time (sec)  
 Storage Volume = Inflow Volume - Outflow Volume

Detention Storage Calculations					
Time t (min)	Time t (sec)	Intensity I (in/hr)	Inflow Vin (ft <sup>3</sup> )	Outflow Vout (ft <sup>3</sup> )	Storage Vstor (ft <sup>3</sup> )
5.0	300	10.80	6,712	3,858	2,854
10.0	600	8.35	10,379	7,716	2,663
15.0	900	6.65	12,399	11,574	825
20.0	1,200	5.52	13,722	15,432	-1,710
25.0	1,500	4.70	14,605	19,290	-4,685
30.0	1,800	4.20	15,661	23,148	-7,487
35.0	2,100	3.92	17,064	27,006	-9,942
40.0	2,400	3.64	18,093	30,864	-12,771
45.0	2,700	3.36	18,769	34,722	-15,953
50.0	3,000	3.07	19,094	38,580	-19,486
55.0	3,300	2.79	19,066	42,438	-23,372
60.0	3,600	2.50	18,644	46,296	-27,652

**Maximum Volume (ft<sup>3</sup>) 2,854**  
 City of Boulder Only (110%) 285 ft<sup>3</sup>  
 50% WQCV 1,067 ft<sup>3</sup>  


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**Required 100-yr Volume + 50% WQCV 4,207 ft<sup>3</sup>**



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Job Name: Ponderosa MHP  
 Job Number: 2408.3c  
 Date: 7/25/19  
 By: TRR / MGR

## Ponderosa MHP

### Detention Pond Volume Calculations: FAA Procedure

Based on FAA Procedure, per Federal Aviation Agency "Airport Drainage" Manual

Drainage Basin **A1**  
 Design Storm **10 year**  
 Composite "C" Factor **0.65**  
 Basin Size **3.22**

#### Release Rate Calculations

Allowable Release Rate for Site **9.13 cfs** (Hist Flows for Basin H1)  
 Less Undetained Offsite Flows - **0.00 cfs**  


---

 Allowable Release Rate for Pond **9.13 cfs**

#### Rainfall Intensity Calculations

Point Hour Rainfall (P<sub>1</sub>) : **1.80**  
 Rainfall Intensity: BoulderIDF

#### Volume Calculations

Inflow Volume = C \* I \* A \* time (sec)  
 Outflow Volume = Allowable Release Rate \* time (sec)  
 Storage Volume = Inflow Volume - Outflow Volume

Detention Storage Calculations					
Time t (min)	Time t (sec)	Intensity I (in/hr)	Inflow Vin (ft <sup>3</sup> )	Outflow Vout (ft <sup>3</sup> )	Storage Vstor (ft <sup>3</sup> )
5.0	300	7.45	4,681	2,738	1,943
10.0	600	5.70	7,163	5,476	1,687
15.0	900	4.55	8,577	8,214	363
20.0	1,200	3.80	9,551	10,951	-1,401
25.0	1,500	3.30	10,368	13,689	-3,322
30.0	1,800	2.95	11,122	16,427	-5,305
35.0	2,100	2.76	12,149	19,165	-7,016
40.0	2,400	2.57	12,921	21,903	-8,982
45.0	2,700	2.38	13,453	24,641	-11,188
50.0	3,000	2.19	13,743	27,379	-13,636
55.0	3,300	2.00	13,793	30,116	-16,324
60.0	3,600	1.80	13,572	32,854	-19,282

**Maximum Volume (ft<sup>3</sup>) 1,943**  
 City of Boulder Only (110%) 194 ft<sup>3</sup>  
 100% WQCV 2,134 ft<sup>3</sup>  


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**Required 10-yr Volume + 100% WQCV 4,272 ft<sup>3</sup>**



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 Job Number: 2408.3c  
 Date: 7/25/19  
 By: TRR / MGR

## Ponderosa MHP

### Detention Pond Volume Calculations: FAA Procedure

Based on FAA Procedure, per Federal Aviation Agency "Airport Drainage" Manual

Drainage Basin **A2**  
 Design Storm **100 year**  
 Composite "C" Factor **0.75**  
 Basin Size **3.15**

#### Release Rate Calculations

Allowable Release Rate for Site **9.17 cfs** (Historic Flows for Basin H2)  
 Less Undetained Offsite Flows - **0.00 cfs**  


---

 Allowable Release Rate for Pond **9.17 cfs**

#### Rainfall Intensity Calculations

Point Hour Rainfall (P<sub>1</sub>) : **2.50**  
 Rainfall Intensity: BoulderIDF

#### Volume Calculations

Inflow Volume = C \* I \* A \* time (sec)  
 Outflow Volume = Allowable Release Rate \* time (sec)  
 Storage Volume = Inflow Volume - Outflow Volume

Detention Storage Calculations					
Time t (min)	Time t (sec)	Intensity I (in/hr)	Inflow Vin (ft <sup>3</sup> )	Outflow Vout (ft <sup>3</sup> )	Storage Vstor (ft <sup>3</sup> )
5.0	300	10.80	7,665	2,751	4,914
10.0	600	8.35	11,852	5,501	6,351
15.0	900	6.65	14,159	8,252	5,907
20.0	1,200	5.52	15,670	11,003	4,668
25.0	1,500	4.70	16,678	13,753	2,925
30.0	1,800	4.20	17,885	16,504	1,380
35.0	2,100	3.92	19,486	19,255	231
40.0	2,400	3.64	20,661	22,005	-1,344
45.0	2,700	3.36	21,434	24,756	-3,322
50.0	3,000	3.07	21,804	27,507	-5,702
55.0	3,300	2.79	21,773	30,257	-8,484
60.0	3,600	2.50	21,291	33,008	-11,717

**Maximum Volume (ft<sup>3</sup>) 6,351**  
 City of Boulder Only (110%) 635 ft<sup>3</sup>  
 50% WQCV 1,111 ft<sup>3</sup>  


---

**Required 100-yr Volume + 50% WQCV 8,097 ft<sup>3</sup>**



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 By: TRR / MGR

## Ponderosa MHP

### Detention Pond Volume Calculations: FAA Procedure

Based on FAA Procedure, per Federal Aviation Agency "Airport Drainage" Manual

Drainage Basin **A2**  
 Design Storm **10 year**  
 Composite "C" Factor **0.59**  
 Basin Size **3.15**

#### Release Rate Calculations

Allowable Release Rate for Site **4.22 cfs** (Historic Flows for Basin H2)  
 Less Undetained Offsite Flows - **0.00 cfs**  


---

 Allowable Release Rate for Pond **4.22 cfs**

#### Rainfall Intensity Calculations

Point Hour Rainfall (P<sub>1</sub>) : **1.80**  
 Rainfall Intensity: BoulderIDF

#### Volume Calculations

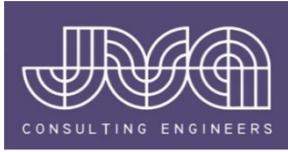
Inflow Volume = C \* I \* A \* time (sec)  
 Outflow Volume = Allowable Release Rate \* time (sec)  
 Storage Volume = Inflow Volume - Outflow Volume

Detention Storage Calculations					
Time t (min)	Time t (sec)	Intensity I (in/hr)	Inflow Vin (ft <sup>3</sup> )	Outflow Vout (ft <sup>3</sup> )	Storage Vstor (ft <sup>3</sup> )
5.0	300	7.45	4,149	1,265	2,884
10.0	600	5.70	6,349	2,530	3,819
15.0	900	4.55	7,602	3,795	3,807
20.0	1,200	3.80	8,465	5,061	3,405
25.0	1,500	3.30	9,189	6,326	2,864
30.0	1,800	2.95	9,858	7,591	2,267
35.0	2,100	2.76	10,768	8,856	1,912
40.0	2,400	2.57	11,453	10,121	1,332
45.0	2,700	2.38	11,924	11,386	537
50.0	3,000	2.19	12,181	12,651	-470
55.0	3,300	2.00	12,225	13,917	-1,692
60.0	3,600	1.80	12,030	15,182	-3,152

**Maximum Volume (ft<sup>3</sup>) 3,819**  
 City of Boulder Only (110%) 382 ft<sup>3</sup>  
 100% WQCV 2,222 ft<sup>3</sup>  


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**Required 10-yr Volume + 100% WQCV 6,422 ft<sup>3</sup>**



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Job Name: Ponderosa MHP (Phase 1a)  
 Job Number: 2408.3c  
 Date: 7/25/19  
 By: TRR / MGR

	I%	C2	C5	C10	C100
Streets Paved	100%	0.87	0.88	0.90	0.93
Concrete Drives/Walks	96%	0.85	0.87	0.90	0.92
Roof	90%	0.80	0.85	0.90	0.90
Gravel	7%	0.15	0.25	0.35	0.65
Landscaping (B soil)	0%	0.00	0.10	0.20	0.50
Landscaping (C/D soil)	0%	0.10	0.20	0.30	0.60
Playground	13%	0.20	0.30	0.40	0.70
Railyard	40%	0.40	0.45	0.50	0.70

**Ponderosa MHP (Phase 1a)**  
**Composite Runoff Coefficient Calculations**

Location: Boulder  
 Minor Design Storm: 2  
 Major Design Storm: 100  
 Soil Type: C/D

Basin Design Data																
	I (%) =	100%	96%	90%	7%	13%	40%	0%	0%			I (%)	Runoff Coeff's			
Basin Name	Design Point	A <sub>paved streets</sub> (sf)	A <sub>drives/c onc</sub> (sf)	A <sub>roof</sub> (sf)	A <sub>gravel</sub> (sf)	A <sub>plygnd</sub> (sf)	A <sub>railyard</sub> (sf)	A <sub>lscape (B soil)</sub> (sf)	A <sub>lscape (C/D soil)</sub> (sf)	A <sub>Total</sub> (sf)	A <sub>Total</sub> (ac)	Imp (%)	C2	C5	C10	C100
A1a	1	17,385	6,883	25,385					65,492	115,145	2.64	40.7%	0.42	0.49	0.56	0.74
A2a	2	26,399	9,407	31,810					69,644	137,260	3.15	46.7%	0.46	0.53	0.60	0.75
Z3	3	3,810		2,140	2,470				900	9,320	0.21	63.4%	0.59	0.64	0.70	0.82
Z4	4		486						15,331	15,817	0.36	2.9%	0.12	0.22	0.32	0.61
TOTAL SITE		47,594	16,776	59,335	2,470	0	0	0	151,367	277,542	6.37	42.3%	0.43	0.50	0.57	0.74



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Job Name: Ponderosa MHP (Phase 1a)  
 Job Number: 2408.3c  
 Date: 7/25/19  
 By: TRR / MGR

**Ponderosa MHP (Phase 1a)**  
**Time of Concentration Calculations**

Location: Boulder  
 Minor Design Storm: 2  
 Major Design Storm: 100  
 Soil Type: C/D

Sub-Basin Data				Initial Overland Time (t <sub>i</sub> )			Travel Time (t <sub>t</sub> ) t <sub>t</sub> =Length/(Velocity x 60)						t <sub>c</sub> Comp	t <sub>c</sub> Urbanized Check ON		t <sub>c</sub> Final
Basin Name	Design Point	A <sub>Total</sub> (ac)	C5	Upper most Length (ft)	Slope (%)	t <sub>i</sub> (min)	Length (ft)	Slope (%)	Type of Land Surface	C <sub>v</sub>	Velocity (fps)	t <sub>t</sub> (min)	Time of Conc t <sub>i</sub> + t <sub>t</sub> = t <sub>c</sub>	Total Length (ft)	t <sub>c</sub> =(L/180)+ 10 (min)	Min t <sub>c</sub>
A1a	1	2.64	0.49	210	3.1%	11.0	325	3.0%	Paved areas & shallow paved swales	20	3.5	1.6	12.5	535	13.0	12.5
A2a	2	3.15	0.53	239	2.8%	11.3	673	2.8%	Paved areas & shallow paved swales	20	3.3	3.4	14.7	912	15.1	14.7
Z3	3	0.21	0.64	57	2.0%	5.0	0	0.0%	Paved areas & shallow paved swales	20	0.0	0.0	5.0	57	10.3	5.0
Z4	4	0.36	0.22	30	1.0%	8.7	40	7.0%	Paved areas & shallow paved swales	20	5.3	0.1	8.8	70	10.4	8.8



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Job Name: Ponderosa MHP (Phase 1a)  
 Job Number: 2408.3c  
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**Ponderosa MHP (Phase 1a)**

**Developed Storm Runoff Calculations**

Design Storm :

**100 Year**

Point Hour Rainfall (P<sub>1</sub>) : **2.50**

Basin Name	Design Point	Direct Runoff						Total Runoff				Inlets				Pipe			Pipe/Swale Travel Time			Total Time (min)	Notes	
		Area (ac)	Runoff Coeff	tc (min)	C*A (ac)	I (in/hr)	Q (cfs)	Total tc (min)	ΣC*A (ac)	I (in/hr)	Q (cfs)	Inlet Type	Q intercepted	Q carryover	Q bypass	Pipe Size (in) or equivalent	Pipe Material	Slope (%)	Pipe Flow (cfs)	Max Pipe Capacity (cfs)	Length (ft)			Velocity (fps)
A1a	1	2.64	0.74	12.50	1.94	7.49	14.55	12.50	1.94	7.49	14.55													
A2a	2	3.15	0.75	14.70	2.38	6.76	16.07	14.70	2.38	6.76	16.07													
Z3	3	0.21	0.82	5.00	0.17	10.80	1.89	5.00	0.17	10.80	1.89													
Z4	4	0.36	0.61	8.80	0.22	8.96	1.98	8.80	0.22	8.96	1.98													
											34.49													



**JVA Incorporated**  
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 Ph: (303) 444 1951

Job Name: Ponderosa MHP (Phase 1a)  
 Job Number: 2408.3c  
 Date: 7/25/19  
 By: TRR / MGR

**Ponderosa MHP (Phase 1a)**

**Developed Storm Runoff Calculations**

Design Storm :

**2 Year**

Point Hour Rainfall (P<sub>1</sub>) : **0.95**

Basin Name	Design Point	Direct Runoff						Total Runoff				Inlets			Pipe				Pipe/Swale Travel Time			Total Time (min)	Notes	
		Area (ac)	Runoff Coeff	tc (min)	C*A (ac)	I (in/hr)	Q (cfs)	Total tc (min)	ΣC*A (ac)	I (in/hr)	Q (cfs)	Inlet Type	Q intercepted	Q carryover	Q bypass	Pipe Size (in) or equivalent	Pipe Material	Slope (%)	Pipe Flow (cfs)	Max Pipe Capacity (cfs)	Length (ft)			Velocity (fps)
A1a	1	2.64	0.42	12.50	1.10	2.59	2.84	12.50	1.10	2.59	2.84													
A2a	2	3.15	0.46	14.70	1.45	2.33	3.39	14.70	1.45	2.33	3.39													
Z3	3	0.21	0.59	5.00	0.13	4.00	0.50	5.00	0.13	4.00	0.50													
Z4	4	0.36	0.12	8.80	0.04	3.14	0.14	8.80	0.04	3.14	0.14													



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Job Name: Ponderosa MHP (Phase  
 Job Number: 2408.3c  
 Date: 7/25/19  
 By: TRR / MGR

## Ponderosa MHP (Phase 1a)

### Detention Pond Volume Calculations: FAA Procedure

Based on FAA Procedure, per Federal Aviation Agency "Airport Drainage" Manual

Drainage Basin **A1**  
 Design Storm **100 year**  
 Composite "C" Factor **0.74**  
 Basin Size **2.64**

#### Release Rate Calculations

Allowable Release Rate for Site	12.86 cfs	(Max Pipe Flow through outfall pipe)
Less Undetained Offsite Flows	-	
Allowable Release Rate for Pond	12.86 cfs	

#### Rainfall Intensity Calculations

Point Hour Rainfall (P<sub>1</sub>) : **2.50**  
 Rainfall Intensity: BoulderIDF

#### Volume Calculations

Inflow Volume = C \* I \* A \* time (sec)  
 Outflow Volume = Allowable Release Rate \* time (sec)  
 Storage Volume = Inflow Volume - Outflow Volume

Detention Storage Calculations					
Time t (min)	Time t (sec)	Intensity I (in/hr)	Inflow Vin (ft <sup>3</sup> )	Outflow Vout (ft <sup>3</sup> )	Storage Vstor (ft <sup>3</sup> )
5.0	300	10.80	6,296	3,858	2,438
10.0	600	8.35	9,735	7,716	2,019
15.0	900	6.65	11,630	11,574	56
20.0	1,200	5.52	12,871	15,432	-2,561
25.0	1,500	4.70	13,699	19,290	-5,591
30.0	1,800	4.20	14,690	23,148	-8,458
35.0	2,100	3.92	16,005	27,006	-11,001
40.0	2,400	3.64	16,970	30,864	-13,894
45.0	2,700	3.36	17,605	34,722	-17,117
50.0	3,000	3.07	17,910	38,580	-20,670
55.0	3,300	2.79	17,884	42,438	-24,554
60.0	3,600	2.50	17,488	46,296	-28,808

<b>Maximum Volume (ft<sup>3</sup>)</b>	<b>2,438</b>	
City of Boulder Only (110%)	244	ft <sup>3</sup>
50% WQCV	849	ft <sup>3</sup>
<b>Required 100-yr Volume + 50% WQCV</b>	<b>3,531</b>	<b>ft<sup>3</sup></b>



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 Boulder, CO 80302  
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Job Name: Ponderosa MHP (Phase  
 Job Number: 2408.3c  
 Date: 7/25/19  
 By: TRR / MGR

## Ponderosa MHP (Phase 1a)

### Detention Pond Volume Calculations: FAA Procedure

Based on FAA Procedure, per Federal Aviation Agency "Airport Drainage" Manual

Drainage Basin **A1a**  
 Design Storm **10 year**  
 Composite "C" Factor **0.56**  
 Basin Size **2.64**

#### Release Rate Calculations

Allowable Release Rate for Site **9.13 cfs** (Hist Flows for Basin H1)  
 Less Undetained Offsite Flows - **0.00 cfs**  


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 Allowable Release Rate for Pond **9.13 cfs**

#### Rainfall Intensity Calculations

Point Hour Rainfall (P<sub>1</sub>) : **1.80**  
 Rainfall Intensity: BoulderIDF

#### Volume Calculations

Inflow Volume = C \* I \* A \* time (sec)  
 Outflow Volume = Allowable Release Rate \* time (sec)  
 Storage Volume = Inflow Volume - Outflow Volume

Detention Storage Calculations					
Time t (min)	Time t (sec)	Intensity I (in/hr)	Inflow Vin (ft <sup>3</sup> )	Outflow Vout (ft <sup>3</sup> )	Storage Vstor (ft <sup>3</sup> )
5.0	300	7.45	3,301	2,738	563
10.0	600	5.70	5,051	5,476	-425
15.0	900	4.55	6,048	8,214	-2,166
20.0	1,200	3.80	6,735	10,951	-4,217
25.0	1,500	3.30	7,311	13,689	-6,378
30.0	1,800	2.95	7,843	16,427	-8,585
35.0	2,100	2.76	8,567	19,165	-10,598
40.0	2,400	2.57	9,112	21,903	-12,791
45.0	2,700	2.38	9,486	24,641	-15,155
50.0	3,000	2.19	9,691	27,379	-17,688
55.0	3,300	2.00	9,726	30,116	-20,391
60.0	3,600	1.80	9,571	32,854	-23,284

**Maximum Volume (ft<sup>3</sup>) 563**

City of Boulder Only (110%) 56 ft<sup>3</sup>

100% WQCV 1,699 ft<sup>3</sup>

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**Required 10-yr Volume + 100% WQCV 2,318 ft<sup>3</sup>**



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Job Name: Ponderosa MHP (Phase  
 Job Number: 2408.3c  
 Date: 7/25/19  
 By: TRR / MGR

## Ponderosa MHP (Phase 1a)

### Detention Pond Volume Calculations: FAA Procedure

Based on FAA Procedure, per Federal Aviation Agency "Airport Drainage" Manual

Drainage Basin A2  
 Design Storm **100 year**  
 Composite "C" Factor 0.75  
 Basin Size 3.15

#### Release Rate Calculations

Allowable Release Rate for Site	9.17 cfs	(Historic Flows for Basin H2)
Less Undetained Offsite Flows	- 0.00 cfs	
Allowable Release Rate for Pond	9.17 cfs	

#### Rainfall Intensity Calculations

Point Hour Rainfall (P<sub>1</sub>) : **2.50**  
 Rainfall Intensity: BoulderIDF

#### Volume Calculations

Inflow Volume = C \* I \* A \* time (sec)  
 Outflow Volume = Allowable Release Rate \* time (sec)  
 Storage Volume = Inflow Volume - Outflow Volume

Detention Storage Calculations					
Time t (min)	Time t (sec)	Intensity I (in/hr)	Inflow Vin (ft <sup>3</sup> )	Outflow Vout (ft <sup>3</sup> )	Storage Vstor (ft <sup>3</sup> )
5.0	300	10.80	7,707	2,751	4,957
10.0	600	8.35	11,918	5,501	6,416
15.0	900	6.65	14,237	8,252	5,985
20.0	1,200	5.52	15,757	11,003	4,755
25.0	1,500	4.70	16,771	13,753	3,017
30.0	1,800	4.20	17,984	16,504	1,480
35.0	2,100	3.92	19,594	19,255	339
40.0	2,400	3.64	20,776	22,005	-1,230
45.0	2,700	3.36	21,553	24,756	-3,203
50.0	3,000	3.07	21,925	27,507	-5,581
55.0	3,300	2.79	21,894	30,257	-8,364
60.0	3,600	2.50	21,409	33,008	-11,599

<b>Maximum Volume (ft<sup>3</sup>)</b>	<b>6,416</b>	
City of Boulder Only (110%)	642	ft <sup>3</sup>
50% WQCV	1,089	ft <sup>3</sup>
<b>Required 100-yr Volume + 50% WQCV</b>	<b>8,147</b>	<b>ft<sup>3</sup></b>



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Job Name: Ponderosa MHP (Phase  
 Job Number: 2408.3c  
 Date: 7/25/19  
 By: TRR / MGR

## Ponderosa MHP (Phase 1a)

### Detention Pond Volume Calculations: FAA Procedure

Based on FAA Procedure, per Federal Aviation Agency "Airport Drainage" Manual

Drainage Basin **A2**  
 Design Storm **10 year**  
 Composite "C" Factor **0.60**  
 Basin Size **3.15**

#### Release Rate Calculations

Allowable Release Rate for Site **4.22 cfs** (Historic Flows for Basin H2)  
 Less Undetained Offsite Flows - **0.00 cfs**  


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 Allowable Release Rate for Pond **4.22 cfs**

#### Rainfall Intensity Calculations

Point Hour Rainfall (P<sub>1</sub>) : **1.80**  
 Rainfall Intensity: BoulderIDF

#### Volume Calculations

Inflow Volume = C \* I \* A \* time (sec)  
 Outflow Volume = Allowable Release Rate \* time (sec)  
 Storage Volume = Inflow Volume - Outflow Volume

Detention Storage Calculations					
Time t (min)	Time t (sec)	Intensity I (in/hr)	Inflow Vin (ft <sup>3</sup> )	Outflow Vout (ft <sup>3</sup> )	Storage Vstor (ft <sup>3</sup> )
5.0	300	7.45	4,194	1,265	2,929
10.0	600	5.70	6,418	2,530	3,888
15.0	900	4.55	7,685	3,795	3,890
20.0	1,200	3.80	8,558	5,061	3,497
25.0	1,500	3.30	9,290	6,326	2,964
30.0	1,800	2.95	9,965	7,591	2,374
35.0	2,100	2.76	10,886	8,856	2,030
40.0	2,400	2.57	11,578	10,121	1,456
45.0	2,700	2.38	12,054	11,386	667
50.0	3,000	2.19	12,314	12,651	-338
55.0	3,300	2.00	12,358	13,917	-1,558
60.0	3,600	1.80	12,161	15,182	-3,021

**Maximum Volume (ft<sup>3</sup>) 3,890**

City of Boulder Only (110%) 389 ft<sup>3</sup>

100% WQCV 2,178 ft<sup>3</sup>

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**Required 10-yr Volume + 100% WQCV 6,456 ft<sup>3</sup>**

Design Procedure Form: Extended Detention Basin (EDB)

UD-BMP (Version 3.07, March 2018)

Sheet 1 of 3

Designer: MGR  
 Company: JVA, Inc.  
 Date: February 14, 2019  
 Project: Ponderosa MHP  
 Location: Boulder, CO

A1

<p>1. Basin Storage Volume</p> <p>A) Effective Imperviousness of Tributary Area, <math>I_a</math></p> <p>B) Tributary Area's Imperviousness Ratio (<math>i = I_a / 100</math>)</p> <p>C) Contributing Watershed Area</p> <p>D) For Watersheds Outside of the Denver Region, Depth of Average Runoff Producing Storm</p> <p>E) Design Concept (Select EURV when also designing for flood control)</p> <p>F) Design Volume (WQCV) Based on 40-hour Drain Time (<math>V_{DESIGN} = (1.0 * (0.91 * i^3 - 1.19 * i^2 + 0.78 * i) / 12 * Area)</math>)</p> <p>G) For Watersheds Outside of the Denver Region, Water Quality Capture Volume (WQCV) Design Volume (<math>V_{WQCV\ OTHER} = (d_6 * V_{DESIGN} * 0.43)</math>)</p> <p>H) User Input of Water Quality Capture Volume (WQCV) Design Volume (Only if a different WQCV Design Volume is desired)</p> <p>I) NRCS Hydrologic Soil Groups of Tributary Watershed              i) Percentage of Watershed consisting of Type A Soils              ii) Percentage of Watershed consisting of Type B Soils              iii) Percentage of Watershed consisting of Type C/D Soils</p> <p>J) Excess Urban Runoff Volume (EURV) Design Volume              For HSG A: <math>EURV_A = 1.68 * i^{1.28}</math>              For HSG B: <math>EURV_B = 1.36 * i^{1.08}</math>              For HSG C/D: <math>EURV_{C/D} = 1.20 * i^{1.08}</math></p> <p>K) User Input of Excess Urban Runoff Volume (EURV) Design Volume (Only if a different EURV Design Volume is desired)</p>	<p><math>I_a =</math> <input type="text" value="45.3"/> %</p> <p><math>i =</math> <input type="text" value="0.453"/></p> <p>Area = <input type="text" value="3.150"/> ac</p> <p><math>d_6 =</math> <input type="text" value=""/></p> <p>Choose One</p> <p><input checked="" type="radio"/> Water Quality Capture Volume (WQCV)</p> <p><input type="radio"/> Excess Urban Runoff Volume (EURV)</p> <p><math>V_{DESIGN} =</math> <input type="text" value="0.051"/> ac-ft</p> <p><math>V_{DESIGN\ OTHER} =</math> <input type="text" value=""/> ac-ft</p> <p><math>V_{DESIGN\ USER} =</math> <input type="text" value=""/> ac-ft</p> <p>HSG <math>A =</math> <input type="text" value=""/> %</p> <p>HSG <math>B =</math> <input type="text" value=""/> %</p> <p>HSG <math>C/D =</math> <input type="text" value=""/> %</p> <p><math>EURV_{DESIGN} =</math> <input type="text" value=""/> ac-ft</p> <p><math>EURV_{DESIGN\ USER} =</math> <input type="text" value=""/> ac-ft</p>
<p>2. Basin Shape: Length to Width Ratio (A basin length to width ratio of at least 2:1 will improve TSS reduction.)</p>	<p>L : W = <input type="text" value=""/> : 1</p>
<p>3. Basin Side Slopes</p> <p>A) Basin Maximum Side Slopes (Horizontal distance per unit vertical, 4:1 or flatter preferred)</p>	<p>Z = <input type="text" value=""/> ft / ft</p>
<p>4. Inlet</p> <p>A) Describe means of providing energy dissipation at concentrated inflow locations:</p>	<p>_____</p> <p>_____</p> <p>_____</p>
<p>5. Forebay</p> <p>A) Minimum Forebay Volume (<math>V_{FMN} =</math> <input type="text" value="1"/> % of the WQCV)</p> <p>B) Actual Forebay Volume</p> <p>C) Forebay Depth (<math>D_F =</math> <input type="text" value="12"/> inch maximum)</p> <p>D) Forebay Discharge</p> <p>i) Undetained 100-year Peak Discharge</p> <p>ii) Forebay Discharge Design Flow (<math>Q_F = 0.02 * Q_{100}</math>)</p> <p>E) Forebay Discharge Design</p> <p>F) Discharge Pipe Size (minimum 8-inches)</p> <p>G) Rectangular Notch Width</p>	<p><math>V_{FMN} =</math> <input type="text" value="0.001"/> ac-ft</p> <p><math>V_F =</math> <input type="text" value=""/> ac-ft</p> <p><math>D_F =</math> <input type="text" value=""/> in</p> <p><math>Q_{100} =</math> <input type="text" value=""/> cfs</p> <p><math>Q_F =</math> <input type="text" value=""/> cfs</p> <p>Choose One</p> <p><input type="radio"/> Berm With Pipe</p> <p><input type="radio"/> Wall with Rect. Notch</p> <p><input type="radio"/> Wall with V-Notch Weir</p> <p>Flow too small for berm w/ pipe</p> <p>Calculated <math>D_P =</math> <input type="text" value=""/> in</p> <p>Calculated <math>W_N =</math> <input type="text" value=""/> in</p>

Design Procedure Form: Extended Detention Basin (EDB)

UD-BMP (Version 3.07, March 2018)

Sheet 1 of 3

Designer: MGR  
 Company: JVA, Inc.  
 Date: February 14, 2019  
 Project: Ponderosa MHP  
 Location: Boulder, CO

A2

<p>1. Basin Storage Volume</p> <p>A) Effective Imperviousness of Tributary Area, <math>I_a</math></p> <p>B) Tributary Area's Imperviousness Ratio (<math>i = I_a / 100</math>)</p> <p>C) Contributing Watershed Area</p> <p>D) For Watersheds Outside of the Denver Region, Depth of Average Runoff Producing Storm</p> <p>E) Design Concept (Select EURV when also designing for flood control)</p> <p>F) Design Volume (WQCV) Based on 40-hour Drain Time (<math>V_{DESIGN} = (1.0 * (0.91 * i^3 - 1.19 * i^2 + 0.78 * i) / 12 * Area)</math>)</p> <p>G) For Watersheds Outside of the Denver Region, Water Quality Capture Volume (WQCV) Design Volume (<math>V_{WQCV\ OTHER} = (d_6 * (V_{DESIGN} * 0.43))</math>)</p> <p>H) User Input of Water Quality Capture Volume (WQCV) Design Volume (Only if a different WQCV Design Volume is desired)</p> <p>I) NRCS Hydrologic Soil Groups of Tributary Watershed              i) Percentage of Watershed consisting of Type A Soils              ii) Percentage of Watershed consisting of Type B Soils              iii) Percentage of Watershed consisting of Type C/D Soils</p> <p>J) Excess Urban Runoff Volume (EURV) Design Volume              For HSG A: <math>EURV_A = 1.68 * i^{1.28}</math>              For HSG B: <math>EURV_B = 1.36 * i^{1.08}</math>              For HSG C/D: <math>EURV_{C/D} = 1.20 * i^{1.08}</math></p> <p>K) User Input of Excess Urban Runoff Volume (EURV) Design Volume (Only if a different EURV Design Volume is desired)</p>	<p><math>I_a =</math> <input type="text" value="55.6"/> %</p> <p><math>i =</math> <input type="text" value="0.556"/></p> <p>Area = <input type="text" value="2.640"/> ac</p> <p><math>d_6 =</math> <input type="text"/></p> <p>Choose One</p> <p><input checked="" type="radio"/> Water Quality Capture Volume (WQCV)</p> <p><input type="radio"/> Excess Urban Runoff Volume (EURV)</p> <p><math>V_{DESIGN} =</math> <input type="text" value="0.049"/> ac-ft</p> <p><math>V_{DESIGN\ OTHER} =</math> <input type="text"/> ac-ft</p> <p><math>V_{DESIGN\ USER} =</math> <input type="text"/> ac-ft</p> <p>HSG A = <input type="text"/> %</p> <p>HSG B = <input type="text"/> %</p> <p>HSG C/D = <input type="text"/> %</p> <p>EURV<sub>DESIGN</sub> = <input type="text"/> ac-ft</p> <p>EURV<sub>DESIGN\ USER</sub> = <input type="text"/> ac-ft</p>
<p>2. Basin Shape: Length to Width Ratio (A basin length to width ratio of at least 2:1 will improve TSS reduction.)</p>	<p>L : W = <input type="text"/> : 1</p>
<p>3. Basin Side Slopes</p> <p>A) Basin Maximum Side Slopes (Horizontal distance per unit vertical, 4:1 or flatter preferred)</p>	<p>Z = <input type="text"/> ft / ft</p>
<p>4. Inlet</p> <p>A) Describe means of providing energy dissipation at concentrated inflow locations:</p>	<p>_____</p> <p>_____</p> <p>_____</p>
<p>5. Forebay</p> <p>A) Minimum Forebay Volume (<math>V_{FMN} =</math> <input type="text" value="1"/> % of the WQCV)</p> <p>B) Actual Forebay Volume</p> <p>C) Forebay Depth (<math>D_F =</math> <input type="text" value="12"/> inch maximum)</p> <p>D) Forebay Discharge</p> <p>i) Undetained 100-year Peak Discharge</p> <p>ii) Forebay Discharge Design Flow (<math>Q_F = 0.02 * Q_{100}</math>)</p> <p>E) Forebay Discharge Design</p> <p>F) Discharge Pipe Size (minimum 8-inches)</p> <p>G) Rectangular Notch Width</p>	<p><math>V_{FMN} =</math> <input type="text" value="0.000"/> ac-ft</p> <p><math>V_F =</math> <input type="text"/> ac-ft</p> <p><math>D_F =</math> <input type="text"/> in</p> <p><math>Q_{100} =</math> <input type="text"/> cfs</p> <p><math>Q_F =</math> <input type="text"/> cfs</p> <p>Choose One</p> <p><input type="radio"/> Berm With Pipe</p> <p><input type="radio"/> Wall with Rect. Notch</p> <p><input type="radio"/> Wall with V-Notch Weir</p> <p>Flow too small for berm w/ pipe</p> <p>Calculated <math>D_P =</math> <input type="text"/> in</p> <p>Calculated <math>W_N =</math> <input type="text"/> in</p>

Design Procedure Form: Extended Detention Basin (EDB)

UD-BMP (Version 3.07, March 2018)

Sheet 1 of 3

Designer: MGR  
 Company: JVA, Inc.  
 Date: July 25, 2019  
 Project: Ponderosa MHP (Phase 1a West Basin)  
 Location: Boulder, CO

<p>1. Basin Storage Volume</p> <p>A) Effective Imperviousness of Tributary Area, <math>I_a</math></p> <p>B) Tributary Area's Imperviousness Ratio (<math>i = I_a / 100</math>)</p> <p>C) Contributing Watershed Area</p> <p>D) For Watersheds Outside of the Denver Region, Depth of Average Runoff Producing Storm</p> <p>E) Design Concept (Select EURV when also designing for flood control)</p> <p>F) Design Volume (WQCV) Based on 40-hour Drain Time (<math>V_{DESIGN} = (1.0 * (0.91 * i^3 - 1.19 * i^2 + 0.78 * i) / 12 * Area)</math>)</p> <p>G) For Watersheds Outside of the Denver Region, Water Quality Capture Volume (WQCV) Design Volume (<math>V_{WQCV\ OTHER} = (d_6 * (V_{DESIGN} / 0.43))</math>)</p> <p>H) User Input of Water Quality Capture Volume (WQCV) Design Volume (Only if a different WQCV Design Volume is desired)</p> <p>I) NRCS Hydrologic Soil Groups of Tributary Watershed              i) Percentage of Watershed consisting of Type A Soils              ii) Percentage of Watershed consisting of Type B Soils              iii) Percentage of Watershed consisting of Type C/D Soils</p> <p>J) Excess Urban Runoff Volume (EURV) Design Volume              For HSG A: <math>EURV_A = 1.68 * i^{1.28}</math>              For HSG B: <math>EURV_B = 1.36 * i^{1.08}</math>              For HSG C/D: <math>EURV_{C/D} = 1.20 * i^{1.08}</math></p> <p>K) User Input of Excess Urban Runoff Volume (EURV) Design Volume (Only if a different EURV Design Volume is desired)</p>	<p><math>I_a =</math> <input type="text" value="46.7"/> %</p> <p><math>i =</math> <input type="text" value="0.467"/></p> <p>Area = <input type="text" value="3.150"/> ac</p> <p><math>d_6 =</math> <input type="text"/></p> <p>Choose One</p> <p><input checked="" type="radio"/> Water Quality Capture Volume (WQCV)</p> <p><input type="radio"/> Excess Urban Runoff Volume (EURV)</p> <p><math>V_{DESIGN} =</math> <input type="text" value="0.052"/> ac-ft</p> <p><math>V_{DESIGN\ OTHER} =</math> <input type="text"/> ac-ft</p> <p><math>V_{DESIGN\ USER} =</math> <input type="text"/> ac-ft</p> <p>HSG <sub>A</sub> = <input type="text"/> %</p> <p>HSG <sub>B</sub> = <input type="text"/> %</p> <p>HSG <sub>C/D</sub> = <input type="text"/> %</p> <p>EURV<sub>DESIGN</sub> = <input type="text"/> ac-ft</p> <p>EURV<sub>DESIGN\ USER</sub> = <input type="text"/> ac-ft</p>
<p>2. Basin Shape: Length to Width Ratio (A basin length to width ratio of at least 2:1 will improve TSS reduction.)</p>	<p>L : W = <input type="text"/> : 1</p>
<p>3. Basin Side Slopes</p> <p>A) Basin Maximum Side Slopes (Horizontal distance per unit vertical, 4:1 or flatter preferred)</p>	<p>Z = <input type="text"/> ft / ft</p>
<p>4. Inlet</p> <p>A) Describe means of providing energy dissipation at concentrated inflow locations:</p>	<p>_____</p> <p>_____</p> <p>_____</p>
<p>5. Forebay</p> <p>A) Minimum Forebay Volume (<math>V_{MIN} =</math> <input type="text" value="1"/> % of the WQCV)</p> <p>B) Actual Forebay Volume</p> <p>C) Forebay Depth (<math>D_F =</math> <input type="text" value="12"/> inch maximum)</p> <p>D) Forebay Discharge</p> <p>i) Undetained 100-year Peak Discharge</p> <p>ii) Forebay Discharge Design Flow (<math>Q_F = 0.02 * Q_{100}</math>)</p> <p>E) Forebay Discharge Design</p> <p>F) Discharge Pipe Size (minimum 8-inches)</p> <p>G) Rectangular Notch Width</p>	<p><math>V_{MIN} =</math> <input type="text" value="0.001"/> ac-ft</p> <p><math>V_F =</math> <input type="text"/> ac-ft</p> <p><math>D_F =</math> <input type="text"/> in</p> <p><math>Q_{100} =</math> <input type="text"/> cfs</p> <p><math>Q_F =</math> <input type="text"/> cfs</p> <p>Choose One</p> <p><input type="radio"/> Berm With Pipe</p> <p><input type="radio"/> Wall with Rect. Notch</p> <p><input type="radio"/> Wall with V-Notch Weir</p> <p>Flow too small for berm w/ pipe</p> <p>Calculated <math>D_P =</math> <input type="text"/> in</p> <p>Calculated <math>W_N =</math> <input type="text"/> in</p>

Design Procedure Form: Extended Detention Basin (EDB)

UD-BMP (Version 3.07, March 2018)

Sheet 1 of 3

Designer: MGR  
 Company: JVA, Inc.  
 Date: July 25, 2019  
 Project: Ponderosa MHP (Phase 1a East Basin)  
 Location: Boulder, CO

<p>1. Basin Storage Volume</p> <p>A) Effective Imperviousness of Tributary Area, <math>I_a</math></p> <p>B) Tributary Area's Imperviousness Ratio (<math>i = I_a / 100</math>)</p> <p>C) Contributing Watershed Area</p> <p>D) For Watersheds Outside of the Denver Region, Depth of Average Runoff Producing Storm</p> <p>E) Design Concept (Select EURV when also designing for flood control)</p> <p>F) Design Volume (WQCV) Based on 40-hour Drain Time (<math>V_{DESIGN} = (1.0 * (0.91 * i^3 - 1.19 * i^2 + 0.78 * i) / 12 * Area)</math>)</p> <p>G) For Watersheds Outside of the Denver Region, Water Quality Capture Volume (WQCV) Design Volume (<math>V_{WQCV\ OTHER} = (d_6 * (V_{DESIGN} / 0.43))</math>)</p> <p>H) User Input of Water Quality Capture Volume (WQCV) Design Volume (Only if a different WQCV Design Volume is desired)</p> <p>I) NRCS Hydrologic Soil Groups of Tributary Watershed              i) Percentage of Watershed consisting of Type A Soils              ii) Percentage of Watershed consisting of Type B Soils              iii) Percentage of Watershed consisting of Type C/D Soils</p> <p>J) Excess Urban Runoff Volume (EURV) Design Volume              For HSG A: <math>EURV_A = 1.68 * i^{1.28}</math>              For HSG B: <math>EURV_B = 1.36 * i^{1.08}</math>              For HSG C/D: <math>EURV_{C/D} = 1.20 * i^{1.08}</math></p> <p>K) User Input of Excess Urban Runoff Volume (EURV) Design Volume (Only if a different EURV Design Volume is desired)</p>	<p><math>I_a =</math> <input type="text" value="40.7"/> %</p> <p><math>i =</math> <input type="text" value="0.407"/></p> <p>Area = <input type="text" value="2.640"/> ac</p> <p><math>d_6 =</math> <input type="text" value=""/></p> <p>Choose One</p> <p><input checked="" type="radio"/> Water Quality Capture Volume (WQCV)</p> <p><input type="radio"/> Excess Urban Runoff Volume (EURV)</p> <p><math>V_{DESIGN} =</math> <input type="text" value="0.040"/> ac-ft</p> <p><math>V_{DESIGN\ OTHER} =</math> <input type="text" value=""/> ac-ft</p> <p><math>V_{DESIGN\ USER} =</math> <input type="text" value=""/> ac-ft</p> <p>HSG <sub>A</sub> = <input type="text" value=""/> %</p> <p>HSG <sub>B</sub> = <input type="text" value=""/> %</p> <p>HSG <sub>C/D</sub> = <input type="text" value=""/> %</p> <p>EURV<sub>DESIGN</sub> = <input type="text" value=""/> ac-ft</p> <p>EURV<sub>DESIGN\ USER</sub> = <input type="text" value=""/> ac-ft</p>
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<p>3. Basin Side Slopes</p> <p>A) Basin Maximum Side Slopes (Horizontal distance per unit vertical, 4:1 or flatter preferred)</p>	<p>Z = <input type="text" value=""/> ft / ft</p>
<p>4. Inlet</p> <p>A) Describe means of providing energy dissipation at concentrated inflow locations:</p>	<p>_____</p> <p>_____</p> <p>_____</p>
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## APPENDIX C – REPORT REFERENCES

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# Fourmile Canyon Creek Greenways Improvement Project Upland Avenue to West of Broadway



## Community and Environmental Assessment Process Report

June 6, 2016

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- Appendix B: ERO Memorandum
- Appendix C: UDFCD Evaluation of Sediment Basin Alternatives
- Appendix D: CEAPer Review Committee Comments

## COMMUNITY & ENVIRONMENTAL ASSESSMENT PROCESS OVERVIEW

A Community and Environmental Assessment Process (CEAP) is a formal review process to assess potential impacts of conceptual project alternatives in order to inform the selection and refinement of a preferred alternative. It provides an opportunity to balance multiple community goals by assessing a project against the policies outlined in the Boulder Valley Comprehensive Plan and department master plans.

## EXECUTIVE SUMMARY OF PROJECT

In 2009, a Major Drainageway Plan was approved by City Council for Fourmile Canyon Creek and Wonderland Creek. The recommendations of the 2009 plan were finalized in the Fourmile Canyon Creek and Wonderland Creek Major Drainageway Planning (Final Plan) in May 2011 (MDP). The MDP proposed specific levels of flood mitigation for each reach along Fourmile Canyon Creek between Violet Avenue and Upland Avenue. In 2013, a formal CEAP process was underway for the mitigation measures outlined in the 2011 MDP as well as mitigation measures further upstream, from Violet to Broadway. Then, the September 2013 flood occurred, effectively halting further development of the CEAP analysis.

The September 2013 flood event produced high quantities of sediment, spill flows outside of the channel, and impassable roadways in the Fourmile Canyon Creek drainageway and created incentive for staff to revisit the mitigation measures outlined in the 2011 MDP. It also gave an incentive to revisit mitigation measures west of Broadway to see if new alternatives were feasible. Staff reviewed the 2011 MDP alternatives and investigated further options for spill flow control, sediment capture, and large scale detention ponds.

The existing Fourmile Canyon Creek floodplain between Violet and Upland Avenue extends beyond the creek channel, resulting in:

- One fire station in the 500-year floodplain,
- One Preschool (New Horizons Cooperative) in the 500-year floodplain,
- One Waldorf School (Shining Mountain) and one Elementary School (Crest View Elementary) in the 100-year floodplain,
- One residential structure in the high hazard zone, and
- Water depths along Violet Avenue and Upland Avenue that preclude safe vehicular access to and from Crest View Elementary during a major storm event.

Staff reviewed the following flood mitigation alternatives:

- FM1: Multiple Detention Facilities
- FM2: Single Detention Facility
- FM3: Fourmile Canyon Creek 100-year Channel Improvements
- FM4: Spill Flow Diversion to Wonderland Creek
- FM5: Fourmile Canyon Creek 50-year Channel Improvements
- FM6: Fourmile Canyon Creek Sediment Capture Facility
- FM7: 2011 MDP recommendations

Please see Figure 1 for an overview of these alternatives.

In 2012, a CEAP was developed for Fourmile Canyon Creek from 19<sup>th</sup> to 22<sup>nd</sup> Street that proposed alternatives for flood improvements, emergency access improvements, as well as pedestrian and bicycle access. The selected alternative includes an underpass at 19<sup>th</sup> Street that will allow the passage of the 100-year flood, as well as a grade-separated multi-use path extension and emergency access to Tamarack Avenue. Construction of these improvements is anticipated to begin in 2016-2017. This CEAP will also evaluate alternatives for extending the multi-use path that was approved in the 2012 CEAP.

For this CEAP analysis, staff reviewed the following multi-use path alignment alternatives:

- Option 1: Connection to Countryside Village (mobile home park)
- Option 2A: North Alignment through Violet Park
- Option 2B: South Alignment through Violet Park
- Option 3A: Connect Upland to Violet via Fourmile Canyon Creek
- Option 3B: Connect Upland to Violet via 17<sup>th</sup> Alignment
- Option 3C: Connect Upland to Violet via South Alignment on Violet Avenue
- Option 3D: Connect Upland to Violet via North Alignment on Violet Avenue

Please see Figure 1 for an overview of these alternatives.

#### *STAFF RECOMMENDATION*

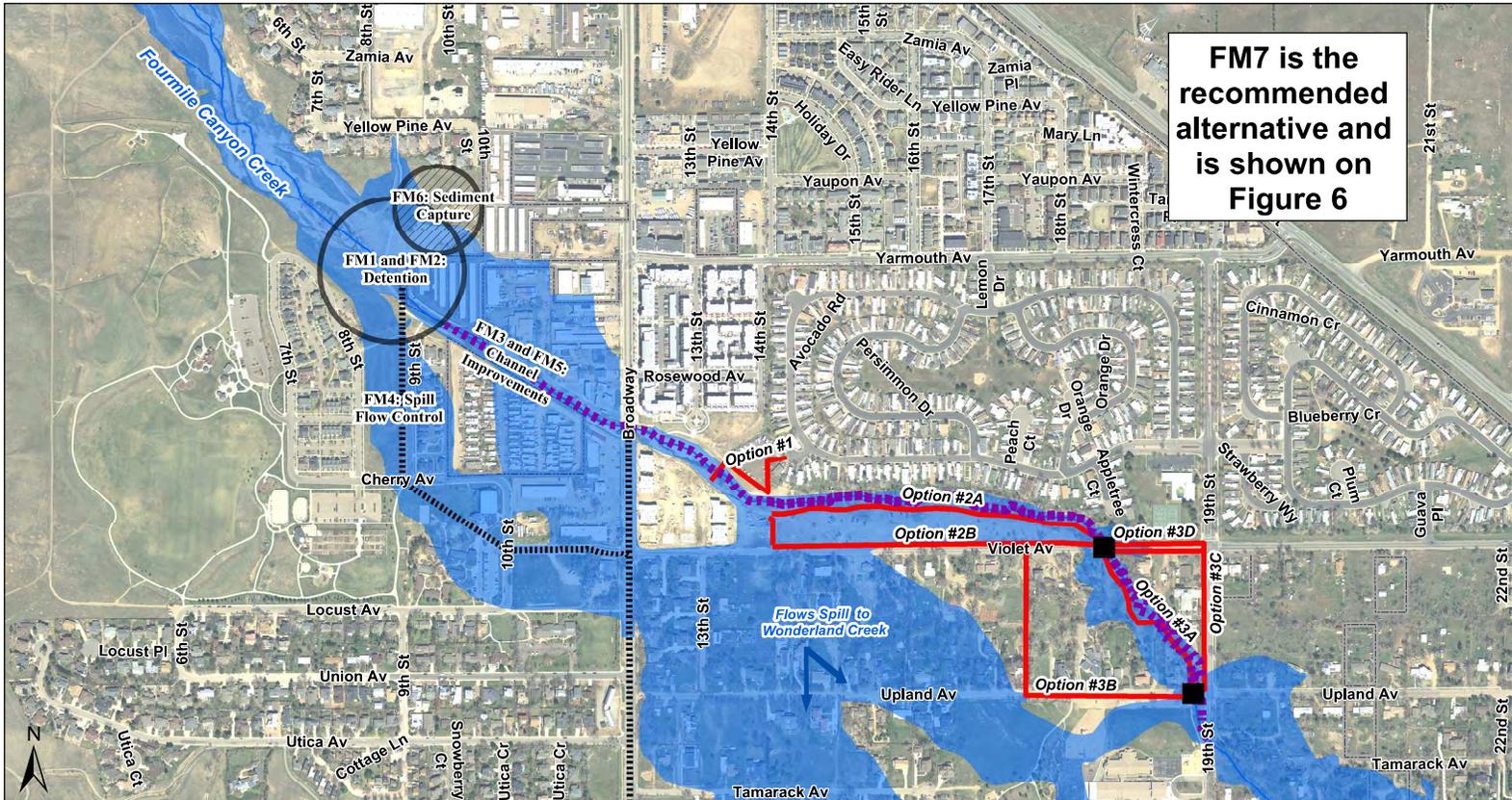
Based on analysis that will be presented in this CEAP, the primary recommendation from City of Boulder staff is to pursue the recommendations outlined in the 2011 Major Drainageway Plan. These include:

- Replacing existing culverts under Violet and Upland Avenue,
- Modifying the channel between these culverts to eliminate high hazard zone risk and reduce the 100-year floodplain, and
- Allow safer vehicular access to Crest View Elementary School.

In addition, staff recommends multi-use path alignment options 1, 2A, and 3A.

This approach allows for uninterrupted access to both a city fire station and Crest View Elementary and the potential for the Fourmile Canyon Creek multi-use path to be integrated into future flood improvements including underpasses at Violet Avenue, Upland Avenue, and 19<sup>th</sup> Street. FM7 improvements have been budgeted in the Greenways and Flood Utility Capital Improvement Programs (CIP) 2016-2021.

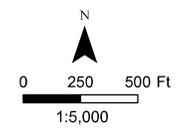
After receiving public input at the WRAB meeting, the recommended alternative also includes incorporating 50-year channel improvements from 9th to 19th Street upon completion of Flood Mitigation Alternative 7 (FM7). The additional improvements to address the 50-year storm will require a new culvert at Broadway and a culvert at 19th Street between Fourmile Canyon Creek and Wonderland Creek and must ensure no downstream impacts. The 50-year channel improvements will be incorporated into future Flood & Greenways CIP and workplan.



**FM7 is the recommended alternative and is shown on Figure 6**

**Legend**

- Effective 100 Year Floodplain
- Creek
- Channel Improvements
- Multi-Use Path Alignment
- Spill Flow Control Alignment
- Detention Area
- Sediment Capture
- Underpass Location



**Fourmile Canyon Creek  
Community & Environmental  
Assessment Process  
Figure 1  
All Alternatives**

## 1.0 DESCRIPTION AND LOCATION OF THE PROJECT

The project is located in northwest Boulder and extends along Fourmile Canyon Creek from Upland Avenue through Violet Park to west of Broadway Avenue (Figure 2).

This project includes the following proposed improvements:

- Extension of a multi-use path from 19<sup>th</sup> Street west to the recently constructed segment located in the Violet Crossing development (northeast corner of Broadway and Violet Avenue)
- Pedestrian and bicycle underpasses at Violet Avenue and Upland Avenue sized to convey the 100-year flood flows
- Channel improvements between Violet Avenue and Upland Avenue to eliminate high hazard zone impacts to existing structures and convey floodwaters through the two new underpasses

Figure 2: Project Location



## 2.0 BACKGROUND, PURPOSE & NEED FOR THE PROJECT

Fourmile Canyon Creek originates in the foothills west of the City of Boulder and has a total drainage area of approximately 10 square miles. Wonderland Creek has a total drainage area of approximately 2 square miles and begins at Wonderland Lake located on the western side of the city approximately 1,300 feet west of Broadway. Both creeks flow east and south through the City of Boulder and eventually flow into Boulder Creek. A vicinity map of Fourmile Canyon Creek CEAP Mitigation Planning area is provided in Figure 2 above. Both creeks have been extensively studied by major drainageway planning, flood hazard area delineation, letter of map revision, and other special report studies.

In 2007, a Letter of Map Revision (LOMR) (Case No. 06-08-B289P) identified significant spill flows (during the 50-year flood and larger flood events) from Fourmile Canyon Creek that leave the south bank of the channel between 10<sup>th</sup> Street (west of Broadway) and 19<sup>th</sup> Street. These spill flows travel overland to the south and east and the majority of the spill flows enter Wonderland Creek, resulting in a significant increase in Wonderland Creek's regulatory floodplain discharge. This change in the regulatory floodplain motivated the City of Boulder and the Urban Drainage and Flood Control District (UDFCD) to produce the 2007 (phase A) and 2011 (phase B / Final Plan) Major Drainageway Planning (MDP) reports.

The 2011 MDP recommendations for Fourmile Canyon Creek upstream of 19<sup>th</sup> Street were to:

- Provide safer access to Crest View Elementary School via 19<sup>th</sup> Street and Upland Avenue,
- Create high hazard containment upstream of Broadway and between Violet Avenue and Upland Avenue,
- Provide stream maintenance between Broadway and Violet Avenue, and
- Coordinate floodproofing of private property.

The 2011 MDP originally called for 100-year floodplain containment from Violet Avenue to 26<sup>th</sup> Street, but due to lack of public support this recommendation was changed to high hazard containment and floodproofing only. Please see Figure 3 for a complete overview of the 2011 MDP recommendations.

The September 2013 flooding event caused significant flooding damage to homes, public infrastructure, and utilities resulting in significant sediment transportation throughout the Fourmile Canyon Creek length. The peak discharge of the flooding event was estimated at approximately 1800cfs at the canyon mouth, which is between the 10-year and 50-year events. As a result of the 2013 flood event, staff re-examined the conclusions in the 2011 MDP. Our first step was to create and calibrate a FLO-2D model in an effort to model the spill flow behavior between Fourmile Canyon Creek and Wonderland Creek for both this event and larger regulatory flood events. The 2D model confirmed the likelihood of spill flows leaving Fourmile Canyon Creek west of Broadway and entering Wonderland Creek during large flooding events as identified in the 2007 LOMR. Figure 3, located in Appendix A, illustrates ICON's FLO-2D model output.

In early 2015, the City of Boulder reviewed alternatives and plans for greenway trail extensions and connections along Fourmile Canyon Creek. The review helped to determine that potential improvements for the multi-use paths along greenways could reasonably combine with floodplain mitigation efforts to make a singular, more beneficial project. This project would serve a two-fold

## CRITERIA FOR REVIEW

Section 9-2-14(h), B.R.C. 1981, "Site Review"

No site review application shall be approved unless the approving agency finds that:

**(1) Boulder Valley Comprehensive Plan:**

- (A) The proposed site plan is consistent with the land use map and the service area map and, on balance, the policies of the Boulder Valley Comprehensive Plan.

*The majority of the site is designated as Manufactured Housing (MH) on the land use map of the Boulder Valley Comprehensive Plan (BVCP), which applies to existing manufactured housing parks. However, the proposal includes a land use map change to Medium Density Residential (MR). The Medium Density designation is characterized by a mix of housing types (from single family to attached units) that are generally situated near neighborhood and community shopping areas or along some of the major arterials of the city. Staff supports a medium density land use designation for the property.*

*Staff finds that the current proposal for medium density residential development is consistent with the goals, objectives, and recommendations of the BVCP, particularly housing related policies. In general, the project supports opportunities for permanently affordable housing that supports socioeconomic diversity and housing for a full range of households.*

*The current proposal appears consistent with the following BVCP goals and policies:*

- 2.03 Compact Development Pattern
- 2.01 Unique Community Identity
- 2.10 Preservation and Support for Residential Neighborhoods
- 2.24 Commitment to a Walkable and Accessible City
- 2.33 Sensitive Infill and Redevelopment
- 2.36 Physical Design for People
- 2.41 Enhanced Design for All Projects
- 7.01 Local Solutions to Affordable Housing
- 7.02 Affordable Housing Goals
- 7.06 Mixture of Housing Types
- 7.07 Preserve Existing Housing Stock
- 7.09 Housing for a Full Range of Households
- 7.08 Preservation and Development of Manufactured Housing
- 8.05 Diversity

- (B) The proposed development shall not exceed the maximum density associated with the Boulder Valley Comprehensive Plan residential land use designation. Additionally, if the density of existing residential development within a three-hundred-foot area surrounding the site is at or exceeds the density permitted in the Boulder Valley Comprehensive Plan, then the maximum density permitted on the site shall not exceed the lesser of:

- ✓ (i) The density permitted in the Boulder Valley Comprehensive Plan, or,

*The site is designated for a Medium Density Residential land use and the density is not permitted to exceed 14 dwelling units per acre. At 11.6 dwelling units per acre, the project would conform to this density.*

- N/A (ii) The maximum number of units that could be placed on the site without waiving or varying any of the requirements of chapter 9-8, "Intensity Standards," B.R.C. 1981.

- ✓ (C) The proposed development's success in meeting the broad range of BVCP policies considers the economic feasibility of implementation techniques require to meet other site review criteria.

*The development would not be rendered infeasible in meeting the BVCP policies or the site review criteria based upon the requirements and recommendations made within these comments.*

**(2) Site Design:** Projects should preserve and enhance the community's unique sense of place through creative design that respects historic character, relationship to the natural environment, multi-modal transportation connectivity and its physical setting. Projects should utilize site design techniques which are consistent with the purpose of site review in subsection (a) of this section and enhance the quality of the project. In determining whether this subsection is met, the approving agency will consider the following factors:

- ✓ (A) **Open Space:** Open space, including, without limitation, parks, recreation areas, and playgrounds:

*The proposal includes the provision of a variety of usable open space, including a pocket park, informal open space areas, community gardens, yards, patios, porches, and decks.*

- ✓ (i) Useable open space is arranged to be accessible and functional and incorporates quality landscaping, a mixture of sun and shade and places to gather;

*The usable open space for the proposed development consists of both private open space (yards, front porches, decks, and patios) and public open space (pocket park, central greens/pedestrian spines, informal open space areas, and community gardens). Private defensible space is defined for each home. Areas for active and passive recreation are provided. The areas for more active gathering include the pocket park, common community center, and the community gardens. The project provides areas for passive activities through the central greens/pedestrian spines, landscaped areas, and buffers to the multi-use path and creek. The pocket park provides an appropriate buffer to the Fourmile Creek Path and is easily accessed by the residents and visitors by various sidewalk connections. Street trees will be provided along the drive accesses and Cherry Avenue. All public formal and informal open space areas will include high quality landscaping.*

- ✓ (ii) Private open space is provided for each detached residential unit;

*Private open space will be provided for each dwelling unit as porches, small yards, decks, and patios.*

- ✓ (iii) The project provides for the preservation of or mitigation of adverse impacts to natural features, including, without limitation, healthy long-lived trees, significant plant communities, ground and surface water, wetlands, riparian areas, drainage areas and species on the federal Endangered Species List, "Species of Special Concern in Boulder County" designated by Boulder County, or prairie dogs (*Cynomys ludovicianus*), which is a species of local concern, and their habitat;

*The applicant will not develop within the wetland buffer areas. Development will occur within the 100 year floodplain in accordance with all flood regulations. No development will occur in the high hazard zone or conveyance zones. Flood mitigating stormwater management will be incorporated into the site. Water quality facilities will also be incorporated. This infrastructure will mitigate adverse impacts to natural features. A detailed tree inventory was provided. There are no existing trees that are appropriate for preservation.*

- ✓ (iv) The open space provides a relief to the density, both within the project and from surrounding development;

*Open space is proposed along the north property line, adjacent to Fourmile Canyon Creek and the multi-use path. It is also proposed along the southern property line, primarily in the form of stormwater detention. Street tree plantings are proposed along Cherry Ave. / 10<sup>th</sup> St. These spaces create a buffer to the existing neighborhood and provide a relief to the density. The pocket park, community gardens, and central greens provide internal relief to the density. All units have private open spaces as yards, porches, patios, or decks, which provides additional relief to the density within the development.*

- ✓ (v) Open space designed for active recreational purposes is of a size that it will be functionally useable and located in a safe and convenient proximity to the uses to which it is meant to serve;

*The pocket park and common building are easily accessed by the development and the neighborhood at large. The pocket park provides an appropriate buffer to the Fourmile Creek Path and is easily accessed by the residents and visitors by various sidewalk connections. The park is large enough to accommodate all programmed activities. The design of the pocket park is appropriate given that there is a playground and large park to the west (Foothills Park), within walking and biking distance.*

- (vi) The open space provides a buffer to protect sensitive environmental features and natural areas; and

*The site plan has preserved open space on the northern boundary of the property to protect wetlands and habitat associated with Fourmile Creek. No development will occur within the wetland buffers.*

- (vii) If possible, open space is linked to an area- or city-wide system.

*The subject property has easy access to open space located along Fourmile Canyon Creek and to the west. The Fourmile Canyon Creek multi-use path runs alongside the northern side of the site and provides direct access to open space. Convenient sidewalk connections connect the formal and informal open space to the multi-use path.*

N/A (B) *Open Space in Mixed Use Developments (Developments that contain a mix of residential and non-residential uses)*

(C) **Landscaping**

- (i) The project provides for aesthetic enhancement and a variety of plant and hard surface materials, and the selection of materials provides for a variety of colors and contrasts and the preservation or use of local native vegetation where appropriate;

*Landscaping is planned to be installed according to the Landscape Plan and phasing plan (see [Attachment C](#)). The project includes a variety of planting areas including but not limited to, required plantings along rights-of-ways, along pedestrian pathways and within the pocket park. The selection of plants and their relationship to the surrounding greenspaces and buildings are aesthetically attractive and provide a relief to the proposed density. The proposed landscaping includes a mix of large shade trees and a variety of understory planting appropriate to the surrounding use and ecological niche.*

- (ii) Landscape design attempts to avoid, minimize or mitigate impacts on and off site to important native species, healthy, long lived trees, plant communities of special concern, threatened and endangered species and habitat by integrating the existing natural environment into the project;

*Landscape materials will be incorporated in the stormwater and water quality facilities. No important native species, plant communities of special concern, threatened and endangered species, or habitat would be impacted on this project. The surrounding natural environment will be improved through the site and landscape design.*

- ✓ (iii) The project provides significant amounts of plant material sized in excess of the landscaping requirements of Sections 9-9-12, "Landscaping and Screening Standards," and 9-9-13, "Streetscape Design Standards," B.R.C. 1981; and

*At completion the project will add an excess of open space planting, parking lot landscaping/screening, and mix of shrubs and groundcover throughout the project. The project will significantly add to the existing vegetative cover. The applicant is not able to provide an excess number of street and alley trees due to spacing conflicts with necessary utility lines. As the project develops, the site design will need to carefully organize the placement of trees with utilities to ensure that sufficient space is allocated to both.*

- ✓ (iv) The setbacks, yards and useable open space along public rights of way are landscaped to provide attractive streetscapes, to enhance architectural features and to contribute to the development of an attractive site plan.

*Proposed landscaping significantly improves the Cherry Avenue / 10<sup>th</sup> Street streetscape and provides for transitions between the more public circulation system and private yards internal to the project. Alley trees will be provided on the western alley, as a transition to the 1000 Rosewood development.*

- ✓ (D) **Circulation:** Circulation, including, without limitation, the transportation system that serves the property, whether public or private and whether constructed by the developer or not:

- ✓ (i) High speeds are discouraged or a physical separation between streets and the project is provided;

*The design includes narrow streets to better serve pedestrians and to help calm traffic. Sidewalks are provided where possible along the internal access streets. Safe multi-modal connections are provided across the site through alley connections or central greenspaces/pedestrian spines. Head-in parking along the internal streets provides a buffer to homes and pedestrians. As a condition of the draft MOU the property owner will be required to install traffic calming measures in the internal streets that lower vehicle speeds on these streets.*

- ✓ (ii) Potential conflicts with vehicles are minimized;

*In addition to slowing traffic through the strategies outline above, potential conflicts with vehicles are minimized through strong pedestrian connections throughout the site and crosswalks. The site design is such that automobiles are physically separated from bicyclists and pedestrians. It is important to note that the project cannot follow a typical street section with detached sidewalks due to desire to allow for gradual and voluntary mobile home replacement.*

- ✓ (iii) Safe and convenient connections are provided that support multi-modal mobility through and between properties, accessible to the public within the

project and between the project and the existing and proposed transportation systems, including, without limitation, streets, bikeways, pedestrianways and trails;

*The site design includes frequent pedestrian connections for use by pedestrians and bicyclists, which connect to the existing multi-modal network. The internal blocks of the development will be split by north-south bike/pedestrian paths and green spaces. These spines will allow for separate vehicular and pedestrian circulation and will provide community open space, particularly as a safe and secure place for children to play outside. An eight-foot wide landscape strip and five-foot wide detached sidewalk will be constructed along the site's frontage along Cherry Avenue /10th Streets.*

- ✓ (iv) Alternatives to the automobile are promoted by incorporating site design techniques, land use patterns, and supporting infrastructure that supports and encourages walking, biking, and other alternatives to the single-occupant vehicle;

*The project contains a number of elements that support and encourage walking and biking. The design includes frequent and convenient connections for pedestrians and bicyclists (see above). In addition to the multi-modal connections and traffic calming measures, this project will include bike parking (short-term and long-term) scattered throughout the site in order to maximize accessibility and encourage biking for residents. The applicant proposes to create an EcoPass program for the community so that EcoPasses will be provided to all residents.*

- ✓ (v) Where practical and beneficial, a significant shift away from single-occupant vehicle use to alternate modes is promoted through the use of travel demand management techniques;

*The project is designed to encourage alternate modes of transportation. EcoPasses will be provided to all residents. The SKIP provides high-frequency transit service on Broadway, with service to downtown and South Boulder. The 204-route also provides service to downtown and South Boulder via 19th Street and Moorhead Avenue. Several local and regional routes connect at the downtown boulder station. A transit stop is located at Violet Avenue and Broadway.*

*In addition, the site is reasonably connected for bicyclists and pedestrians to the larger multi-modal network. The Fourmile Creek multi-use path runs along the north property line, which runs northwest and southeast via an underpass on Broadway. On-street bike lanes are located along Broadway. A designated bike route also runs south on 9th Street.*

- ✓ (vi) On-site facilities for external linkage are provided with other modes of transportation, where applicable;

*See (iv) above.*

- ✓ (vii) The amount of land devoted to the street system is minimized; and

*The layout of the internal streets and building locations is largely driven by the intent of the Ponderosa Resolution to allow for gradual and voluntary mobile home replacement. The site design proposes to retain the existing block system and north-south internal street connections. The east-west street connections will be refined to provide better connectivity within the site and to connect to the 1000 Rosewood development to the west. Ultimately, the existing northernmost road connection along Fourmile Canyon Creek will be eliminated once the removal of homes allows for such. Given these factors, the amount of land devoted to the street system is the minimum necessary to adequately serve the development.*

- ✓ (viii) The project is designed for the types of traffic expected, including, without limitation, automobiles, bicycles, and pedestrians, and provides safety, separation from living areas, and control of noise and exhaust.

*The project is designed and scaled to accommodate all modes of travel. Traffic calming and pedestrian safety measures are proposed. The design includes frequent and convenient connections for pedestrians and bicyclists (see above). The internal blocks of the development will be split by a north-south bike/pedestrian path and green spaces. These spines will allow for separate vehicular and pedestrian circulation and will provide community open space, particularly as a safe and secure place for children to play outside. An eight-foot wide landscape strip and five-foot wide detached sidewalk will be constructed along the site's frontage along Cherry Avenue /10th Streets. The design of the buildings, including the front porches and the placement of windows and doors are such that a transparency and activity is reinforced at the ground level of all proposed buildings, which enhances the pedestrian experience.*

✓ (E) Parking

- ✓ (i) The project incorporates into the design of parking areas measures to provide safety, convenience, and separation of pedestrian movements from vehicular movements;

*Traffic calming measures will be installed to prevent high speeds on the internal streets. Sidewalks are provided where possible along the internal access streets. However, safe multi-modal connections are provided across the site primarily through alley connections or central greenspaces/pedestrian spines. Primary access to the site would be from Cherry Avenue and 10th*

*Street. Secondary access would be provided via a road extension to Rosewood Avenue. A new 4-way intersection with stop signs is proposed at Cherry Avenue and 10th Street, which will reduce conflicts between pedestrians/bicyclists and vehicles.*

- ✓ (ii) The design of parking areas makes efficient use of the land and uses the minimum amount of land necessary to meet the parking needs of the project;

*137 spaces parking spaces are proposed. The intent is to provide approximately two parking spaces for each unit. The applicant states that the parking needs of the ponderosa community are higher than other similar communities, due to the multigenerational families, multiple work vehicles, and extended family living situations. Head-in parking is proposed adjacent to newly constructed units on the interior of the site. Two surface parking lots are proposed on the northern end of the property, adjacent to the common house and the pocket park. The carriage homes on the western edge will include 2-car garages. Additionally, carports will be an option for the head-in parking adjacent to new units.*

- ✓ (iii) Parking areas and lighting are designed to reduce the visual impact on the project, adjacent properties, and adjacent streets; and

*As stated above, the layout of the internal streets and parking is largely driven by the intent of the Ponderosa Resolution to allow for gradual and voluntary mobile home replacement. The site design proposes to retain the existing block system and north-south internal street connections. Head-in parking is proposed adjacent to newly constructed units on the interior of the site. Parking has been designed to reduce visual impact, where possible, by siting the parking area away from the public realm and through the use of landscaping. No lighting is expected to create adverse visual impacts.*

- ✓ (iv) Parking areas utilize landscaping materials to provide shade in excess of the requirements in Subsection 9-9-6(d), and Section 9-9-14, "Parking Lot Landscaping Standards," B.R.C. 1981.

*Excess planting will be provided in the parking lot areas. However, it is not possible to provide excess street or alley trees due to spacing conflicts with necessary utility lines. Thus, the head-in parking will not be shaded in excess of the requirements. Staff finds that this criterion is met due to the intent of the Ponderosa Resolution.*

✓ (F) **Building Design, Livability, and Relationship to the Existing or Proposed Surrounding Area**

- ✓ (i) The building height, mass, scale, orientation, architecture and configuration are compatible with the existing character of the area or the character established by adopted design guidelines or plans for the area;

*The proposed project represents infill development that is compatible with the character of the area. The surrounding area has evolved over the last 25 years from a largely rural area with a mix of residential and service or industrial uses to nodes of more urban mixed-use neighborhoods, guided by the North Boulder Subcommunity Plan. The character of the area surrounding the project site is eclectic. The site is neighbored by the recent 1000 Rosewood residential development to the west and aging industrial development to the south and east, containing industrial service uses. The Shining Mountain Waldorf School and Foothills Community Park are located to the southwest, across Cherry Avenue. Beyond the school and park, to the south and southeast of the site, are established single-family residential neighborhoods. Industrial uses are located to the north across the creek, including a self-storage facility. To the east across Broadway are the Uptown Broadway and Violet Crossing developments, which are characterized by larger buildings of a contemporary style.*

*The majority of the structures are proposed as human-scaled two story structures. Building mass and scale are appropriate given the established character of the neighborhoods surrounding the site. New homes are one- and two-stories in height. Floor plans and elevations have been provided for the carriage homes, duplex, and triplexes that are proposed as part of Phase I of the development. These units will be built per the architectural drawings. With the build out of the remainder of the site over time, the applicant has submitted design guidelines for the single-family, duplex, triplex, and fourplex units on the interior of the site. The guidelines include unit typologies and options, paint color, siding, trim, and roofing options, new unit spacing, exterior improvements, and carport, porch, and fencing options. The structures are neo-traditional with front porches and pitched or shed-style roofs. Proposed building materials include lap board siding, with shake, board and batten, and panel siding as secondary siding options, and metal standing seam or asphalt roofing. The common house is more playful in design with wood look aluminum siding, storefront windows, overhead glass doors, and a shed roof that maximized roof area available for photovoltaic panels.*

- (ii) The height of buildings is in general proportion to the height of existing buildings and the proposed or projected heights of approved buildings or approved plans or design guidelines for the immediate area;

*Structures are primarily one- and two-stories in height, which is in general proportion to the surrounding development.*

- (iii) The orientation of buildings minimizes shadows on and blocking of views from adjacent properties;

*As indicated in the submitted Shadow Analysis the buildings are situated on the site such that shadows on other buildings are minimized and no views*

*from other buildings are affected. All proposed buildings are subject to, and the applicant has demonstrated compliance with, the Solar Access standards for Solar Access Area II, as required by Section 9-9-17, B.R.C. 1981.*

- ✓ (iv) If the character of the area is identifiable, the project is made compatible by the appropriate use of color, materials, landscaping, signs, and lighting;

*As stated above, buildings are primarily neo-traditional in design. The development is consistent with the North Boulder Subcommunity Plan and is compatible with the character of the area. New homes will be compatible with the adjacent residential development in terms of style, colors, materials, and building orientation. Homes on Cherry Avenue are positioned so that front doors and front yards face the street. Homes on the interior of the site address a common open space pedestrian spine and enhance the pedestrian experience. The project contains a variety of building designs that include human scale features such as porches and railings.*

- ✓ (v) Projects are designed to a human scale and promote a safe and vibrant pedestrian experience through the location of building frontages along public streets, plazas, sidewalks and paths, and through the use of building elements, design details and landscape materials that include, without limitation, the location of entrances and windows, and the creation of transparency and activity at the pedestrian level;

*As stated above, the project will promote a safe and vibrant pedestrian experience with a detached sidewalk and buffering tree lawn along the public right-of-way associated with the development (Cherry Avenue/10<sup>th</sup> Street). Homes on Cherry Avenue are positioned so that front doors and front yards face the street. Street trees will be provided along the internal streets, where possible. Homes on the interior of the site address a common open space pedestrian spine and enhance the pedestrian experience. A pedestrian level of detailing, such as windows, railings, porch detailing and other architectural elements, are given prominence.*

- ✓ (vi) To the extent practical, the project provides public amenities and planned public facilities;

*There are no planned transportation connections or public facilities on or across the site. The project includes the construction of a detached sidewalk along the Cherry Ave. / 10th St. frontage. The development supports the planned sidewalks, utilities, streets, bike paths and street trees contemplated in the area's planning. A flood and drainage easement is proposed to cover the area between the property line and outer buffer to allow for future flood improvements as part of the Fourmile Canyon Creek Greenways Improvements Project. The site design does not preclude any improvements planned as part of the Fourmile Canyon Creek Greenways Improvements Project or the North Broadway Reconstruction Project.*

- ✓ (vii) For residential projects, the project assists the community in producing a variety of housing types, such as multifamily, townhouses and detached single family units, as well as mixed lot sizes, number of bedrooms and sizes of units;

*The project will contain a mix of residential densities with a diversity of housing types, including the continued use of the mobile homes as well as new fixed foundation homes. New homes are proposed as primarily single-family and duplex homes, with some carriage houses, triplexes, fourplexes, and townhomes. Mobile homes would remain in the development and would gradually and voluntarily be replaced by new, similar-sized fixed foundation homes. No new mobile homes will be allowed. Due to the desire to allow for gradual and voluntary replacement the final unit mix is unknown. New homes will contain 1-, 2-, and 3-bedroom units. The intent is to allow for a mix of housing that can accommodate a variety of household configurations (aging in place, accessibility, larger families, singles, couples, etc.). A long-term land lease would allow residents to own their homes. The residential units are intended to be available to low, moderate, and middle income residents, priced to be affordable based on household income.*

- ✓ (viii) For residential projects, noise is minimized between units, between buildings, and from either on-site or off-site external sources through spacing, landscaping, and building materials;

*New units will be constructed to provide noise mitigation. Setbacks and landscaping provide sound buffers throughout the project and to adjacent properties.*

- ✓ (ix) A lighting plan is provided which augments security, energy conservation, safety, and aesthetics;

*The submitted lighting plan provides for security, safety, and aesthetics. Final lighting will be evaluated at the Technical Documents review process. All proposed lighting fixtures must comply with the Outdoor Lighting Ordinance.*

- ✓ (x) The project incorporates the natural environment into the design and avoids, minimizes, or mitigates impacts to natural systems;

*As stated above, the major component of the natural environment associated with the site is the Fourmile Creek to the north. The project has incorporated protection to the wetlands and habitat by providing open space along the creek corridor. No negative impacts to the environment would occur or hazards created because of the site development.*

- ✓ (xi) Buildings minimize or mitigate energy use; support on-site renewable energy generation and/or energy management systems; construction wastes are

minimized; the project mitigates urban heat island effects; and the project reasonably mitigates or minimizes water use and impacts on water quality.

*The proposed project will be required to meet the city's rigorous energy efficiency standards. Buildings are oriented to take advantage of renewable energy systems. The new homes will be sited so as to maximize solar orientation and facilitate maximum solar production for the entire community. An innovative approach to community solar is being proposed for this project, which seeks to create equity between all community members through sharing all solar production, regardless if the household has solar panels on their personal structure. The applicant is actively working with Xcel energy to identify solutions that will allow this innovative approach to be integrated into the first phase of development. Solutions include master metering, e-gauges, and integrated billing through the property management. New homes will be electric only, in order to maximize the use of this renewable resource.*

- ✓ (xii) Exteriors or buildings present a sense of permanence through the use of authentic materials such as stone, brick, wood, metal or similar products and building material detailing;

*Proposed building materials include lap board siding, with shake, board and batten, and panel siding as secondary siding options, and metal standing seam or asphalt roofing. The common house is more playful in design with wood look aluminum siding, storefront windows, and overhead glass doors, A pedestrian level of detailing, such as railings, porch detailing, and other architectural elements has been incorporated.*

- ✓ (xiii) Cut and fill are minimized on the site, the design of buildings conforms to the natural contours of the land, and the site design minimizes erosion, slope instability, landslide, mudflow or subsidence, and minimizes the potential threat to property caused by geological hazards;

*The property is essentially flat with a gentle slope from the northwest corner to the east property line. The overall slope will be maintained and areas of cut and fill have been minimized. The design of the homes conforms to the natural contours of the land. See civil plans for current and proposed contours.*

- N/A (xiv) In the urbanizing areas along the Boulder Valley Comprehensive Plan boundaries between Area II and Area III, the building and site design provide for a well-defined urban edge; and

- N/A (xv) In the urbanizing areas located on the major streets shown on the map in Appendix A of this title near the Boulder Valley Comprehensive Plan boundaries between Area II and Area III, the buildings and site design establish a sense of entry and arrival to the City by creating a defined urban edge and a transition between rural and urban areas.

✓ (G) **Solar Siting and Construction:** For the purpose of ensuring the maximum potential for utilization of solar energy in the City, all applicants for residential site reviews shall place streets, lots, open spaces, and buildings so as to maximize the potential for the use of solar energy in accordance with the following solar siting criteria:

✓ (i) **Placement of Open Space and Streets:** Open space areas are located wherever practical to protect buildings from shading by other buildings within the development or from buildings on adjacent properties. Topography and other natural features and constraints may justify deviations from this criterion.

*The new homes will be sited so as to maximize solar orientation and facilitate maximum solar production for the entire community. Street and shade trees will be carefully placed to minimize shading and new rooftops have been designed to maximize solar exposure. All proposed buildings are subject to, and the applicant has demonstrated compliance with, the Solar Access standards for Solar Access Area II, as required by Section 9-9-17, B.R.C. 1981.*

✓ (ii) **Layout and Building Siting:** Lots are oriented and buildings are sited in a way which maximizes the solar potential of each principal building. Lots are designed to facilitate siting a structure which is unshaded by other nearby structures. Wherever practical, buildings are sited close to the north lot line to increase yard space to the south for better owner control of shading.

*See above. The setbacks and positioning of buildings on the site are conducive to solar access for all buildings on the site. The buildings are configured to minimize shading of each other and of adjacent structures.*

✓ (iii) **Building Form:** The shapes of buildings are designed to maximize utilization of solar energy. Buildings shall meet the solar access protection and solar siting requirements of Section 9-9-17, "Solar Access," B.R.C. 1981.

*The form of the buildings has considered in order to maximize utilization of solar energy. New rooftops have been designed to maximize solar exposure. The common community building has a shed roof that maximized roof area available for photovoltaic panels.*

✓ (iv) **Landscaping:** The shading effects of proposed landscaping on adjacent buildings are minimized.

*There are no identified conditions where proposed plantings could negatively affect solar access of buildings in the future.*

N/A (H) **Additional Criteria for Poles Above the Permitted Height:** No site review application for a pole above the permitted height will be approved unless the approving agency finds all of the following:

**N/A (I) *Land Use Intensity Modifications***

**N/A (i) *Potential Land Use Intensity Modifications:***

(a) The density of a project may be increased in the BR-1 district through a reduction of the lot area requirement or in the Downtown (DT), BR-2, or MU-3 districts through a reduction in the open space requirements.

(b) The open space requirements in all Downtown (DT) districts may be reduced by up to one hundred percent.

(c) The open space per lot requirements for the total amount of open space required on the lot in the BR-2 district may be reduced by up to fifty percent.

(d) Land use intensity may be increased up to 25 percent in the BR-1 district through a reduction of the lot area requirement.

**N/A (ii) *Additional Criteria for Land Use Intensity Modifications:*** A land use intensity increase will be permitted up to the maximum amount set forth below if the approving agency finds that the criteria in paragraph (h)(1) through subparagraph (h)(2)(H) of this section and following criteria have been met:

**N/A (J) *Additional Criteria for Floor Area Ratio Increase for Buildings in the BR-1 District***

**N/A (K) *Additional Criteria for Parking Reductions:*** The off-street parking requirements of section 9-7-1, "Schedule of Form and Bulk Standards," B.R.C. 1981, may be modified as follows:

**N/A (L) *Additional Criteria for Off-Site Parking:*** The parking required under section 9-9-6, "Parking Standards," B.R.C. 1981, may be located on a separate lot if the following conditions are met:

**From:** tinaboguhn27@gmail.com  
**To:** [Walbert, Sloane](#)  
**Subject:** ponderosa community stabilization program  
**Date:** Tuesday, March 12, 2019 12:12:03 AM

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To Sloan Walbert

Hello, My name is Tina Boguhn and I am a 16 year resident of Ponderosa mobile home Park. I am also a member of the RLC (residents leadership committee). I thought it important for you to hear from a resident how this project is going for the community.

In the beginning the city came to us and said we are trying to purchase the land because wed like to give you a more stable place to live. We fear the next flood will wipe this community out. We will achieve this by redoing the infrastructure ( water & sewer ). Shortly after the purchase came we have a great opportunity for ponderosa residents. The city has brought Habitat for humanity on board to build new homes for anyone whos interested and can qualify, but everyone will qualify and those that do not wish to to buy a new place can sell your home to the city and leave ( they took away are ability to sell on the open market as most of the homes here are not moveable due to additions and age) or you can stay in your home as it stands now for the rest of your life if you wish too. " Age in Place". We have been asking what does that exactly mean for residents and just recently they are starting to define that. Now what you need to understand is that flood water of 2013 did not damage anyones trailers, only one out building on ground level was affected. The city received federal money to help them achieve there goal (which was unbenounced to us till recently) of saving this park from the next 500 year flood. This really made no sense to any residents since the rain coming down so fast and hard and so much caused leaks in roofs. So we had to ask ourselves whats really happening here. After they purchased the land and wanted to work with us to achieve a gaol we would all be happy with ,we thouggt hey maybe this could be great. We have recently learned with the final site plan that this is not what we were all supoosed to be working towards. They told us we would have an opportunity to buy small single family homes with small yards. We have ended up with a site plan full of duplexes and no private yard space. Needless to say when they showed us the plan in early Feb we were in shock and dismay. We felt mislead, used and like a bait and switch had happened. We have been quite till now because we were led to believe we were working toward a common goal of stand alone homes with yards. Like we have now but energy efficient and befitting of this new style of homes all over boulder. They worked with us in many workshops and monthly meetings to figure out how we can come to a place where we are all happy with. We never thought they do exactly what we said we absolutely ddnt want, duplexes or apartments with no private spaces. I mean why ask us what we think and want and have the community vote and survey on these things if your not going to incorporate it. So you can see why we were completely in shock. We also have recently learned that this is an affordable housing project for anyone. Not just ponderosa residents, that was never said before even when asked directly. We were told it was a beautification and stabilization project. Affordable homes for who because sadly most of the residents I have spoken with do not qualify or aren't interested in a new place. Yes there are some that are but would put a new trailer in if the city would allow that. They said NO!!! The new plan isn't just changing houses it's a completely different way of living. We are slowly loosing are freedoms. This brings me to the zoning and annexation part. We were told by Kurt F. and Crystal L. from city of boulder told the whole community that they would never change the zoning and yet here we are. Seems everything is subject to change. We fear for are future here.

Some folks have lived here 30 years. They are senior citizens and don't want to take on a new home when there is working just fine. They say they will amend the zoning to allow the existing homes to be here with the new builds. They also say it could end up being a covenant to ensure those who want to stay in there homes as is can. I and others fear this is subject to change too. Its been written in many resident's guides that thry will do this but we need more then that to feel secure in our future here. There are around 200 residents living here rite now and from my estimates after talking to many neighbors and the other RLC members it seems a high percentage are not ok with the site plan and all the uncertainty has caused a lot of stress, enough for resients to consider leaving because thy no longer trust this process. As Kurt said himself we ddnt ask for any of this, really its been put on us. They have tried to be sensitive to are needs and wishes but in the end they had a vision and ddnt fully share it with us until feb. Now are only choices are to try to qualify for a new place if possible, take the low offer for the trailer and leave or stay and hope they stick to letting folks stay in there homes as is. The last public city council meeting where residents spoke the Mayor identified 3 options for staff to explore. 1. Do nothing, 2. Redevelop as multifamily apartments ,3 small homes. Based on results of analysis city leaders chose small homes to be pursued. You can read this on page 8 of the 57 page booklet you received with the application from applicant. Also refer to 30 at the top, youll see the top 2 choices out of maybe 20 the residents voted on. All residents were asked to participate, seemed most did. This project has gone off the rails and it seems very wrong to make people who live here have to live under this stress and possibly loose there homes so other people can have affordable homes. These trailers are affordable homes so why not jus do the infrastructure there so worried about and help people fix things that need to be fixed on there existing homes. My hope is to continue to work with the city to come to a place where residents can be happy to with the long and short term goals of this project. So far they are not willing to change the site plan. I don't think expecting them to deliver on what they said they would, single family stand alone homes with small yards is to much to expect since that was the goal we all thought we were working towards. I do appreciate they may have been unseen bumps for them but I feel if they really cared about the residents here like they say they do and have said they are committed to no one being displaced who doesn't wish to leave then they would go back to the drawing board and try again.

Thank you for your time

Tina B.

Sent from [Mail](#) for Windows 10

When Tessel first came to our neighborhood we were promised land ownership or above market value for our homes. In 2017 we were told we could not own our property but we could buy a new disabled home but we could only sell to the city, but would have a choice of types of homes that our opinions and what we want counted. We spent many hours in workshops and meetings thru all these years, picking what type of homes we wanted and never did anyone pick a Duplex!! the city did show

In 2017

the City came up with a Duplex as a new home option, but didn't tell us we would have to buy Duplexes until 2019, because all drawings have changed and they could get more families to live in this neighborhood. It never really about keeping us in a affordable neighborhood.

the City encouraged us to tour 2 communities, where Habitat had built homes like we were being offered. The Wild Sage, and Palo Park homes and

D.

None of them are Duplexes!

Now the Newest plans and Drawings have been submitted to you the City Council for review.

The Ponderosa Community now knows for sure that the city has lied to us all along! Since the very beginning of this process.

We don't get any of what we were offered!

No land ownership!

Homes not valued our market value!

Can only sell to the city!

Don't get to purchase single family home!

We are still waiting to see an actual signed guaranteed Document that we can agree in place and stay in our homes as long as we want last year 2018 when the city brought this project to the city council, the tenants of Ponderosa and our neighbors came to Council and expressed our fears and dislikes about closing the Broadway Entrance and this proposal. Now we have heard that the Broadway Entrance will be closed off, and we will have only 1 Exit in this whole neighborhood.

From Broadway all the way  
back to the foothills, 8th Street  
Foothills park and the Dog park,  
The Waldorf Shinning Mountain  
School will also be affected!

Even with the new entrance  
at 10th and Cherry still only

leaves this whole neighbor-  
hood with only 1 Exit and in a  
Emergency situation only leaves  
our neighborhood in a serious  
situation created by this city  
and the planning Dept. that  
apparently all of our lives  
are not important enough to  
leave Broadway open, as to

Create another Exit, not just the  
Victor Exit! We lived in Boulder  
27 years and in this mobile home  
park almost 20 years and my  
neighbors and I now wish the  
City had left us alone!  
The City has only offered and  
promised only lists!

Thank you for your time!  
Kathy Schwartz

**From:** ED ZICK  
**To:** [Walbert, Sloane](#)  
**Subject:** request for denial or approval with conditions  
**Date:** Tuesday, March 12, 2019 3:15:07 PM

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My name is Edward Zick. I'm a member of the R.L.C.(resident leader committee) at Ponderosa Mobile Home Park. Residents have expressed concerns and take issue with the site plan about the four way entrance plan at the south end intersection of cherry st. and the third row of the park. This plan would cause unnecessary hazards to people,children,and animals by making this a main entrance,exit with the heaviest of park traffic, homes on both sides of the proposed street, when we already have a main entrance,exit to Broadway St. that has no homes on either side,making the four way intersection **unnecessary.**

There are other reasons also, such as trees that were planted in memory of a dear neighbor friend,at the four way site, my pets buried there. I could go on with more,but I won't. Needless to say that four way site area means a great deal to us, and as far as we all recall we weren't consulted about it either.

Other residents have other concerns about the the site plan also, therefore (denial or approval with conditions) should be looked into carefully.

Thank You so much for your consideration.

**From:** ED ZICK  
**To:** [Walbert, Sloane](#)  
**Subject:** Safety concerns  
**Date:** Friday, April 12, 2019 2:18:19 PM

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Thank you for getting back with me and your interest in what we think about this matter.

It is major safety hazard concerns for the proposed four way south entrance at cherry st. Considering that many children live on this street which is narrow and has home entrances facing the proposed main entrance. The road can't be made any wider than it is.

RESOLUTION 1217

A RESOLUTION FOR THE PURPOSE OF ENSURING THE LONG-TERM SUSTAINABILITY, RESILIENCE AND PERMANENT AFFORDABILITY OF THE PONDEROSA MOBILE HOME PARK.

WHEREAS, Ponderosa Mobile Home Park, established in 1957, has long offered an affordable housing opportunity to residents of Boulder County; and,

WHEREAS, Ponderosa Mobile Home Park, features the original, aging infrastructure requiring replacement to ensure the health and life safety of the residents; and,

WHEREAS, the Boulder Valley Comprehensive Plan asserts long-standing community values including commitment to sustainability, inclusivity, and diversity of housing types and price ranges; and,

WHEREAS, the Boulder Valley Comprehensive Plan has adopted policies to facilitate energy-efficient land use, sustainability, permanently affordable housing, and reduction or elimination of health and safety issues impacting manufactured housing communities; and,

WHEREAS, the City of Boulder has purchased Ponderosa Mobile Home Park for the purposes of annexing the property into the City of Boulder, replace and improve failing infrastructure, and preserve the community as permanently affordable; and,

WHEREAS, most Ponderosa residents have lived in the Boulder area for many years and contribute to its economy; and,

WHEREAS, the City of Boulder is committed to working with the residents to develop and implement a plan for addressing the housing needs of the community that ensures permanent affordability and sustainability with certitude; and,

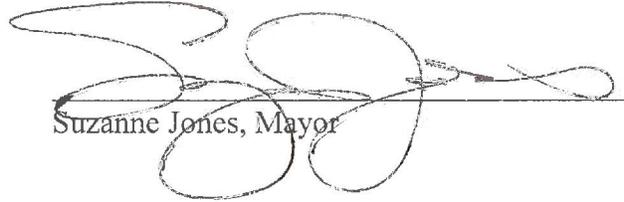
WHEREAS, the City of Boulder intends its ownership of the community to only last through the infrastructure improvements with the future ownership to be determined in partnership with the residents; and

WHEREAS, the City of Boulder is committed to working with the residents of Ponderosa Mobile Home Park to pursue a stabilization program guided by the principles of resident-engagement, sustainability and resiliency, minimal displacement, and long-term affordability.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BOULDER, COLORADO, THAT:

1 The acquisition, annexation and improvements to the Ponderosa Mobile Home Park,  
2 located at 4475 Broadway in Boulder, is consistent with the Boulder Valley Comprehensive  
3 Plan. The City Manager is hereby directed to pursue a path forward in coordination with the  
4 residents of the Ponderosa Mobile Home Park to protect the health and life safety of the  
5 community, enable permanent affordability, promote sustainability and resiliency, and ensure  
6 minimal resident displacement.

ADOPTED this 17<sup>th</sup> day of October 2017.

7   
8 Suzanne Jones, Mayor

ATTEST:

9   
10 Lynnette Beck, City Clerk

## RESOLUCIÓN 1217

## RESOLUCIÓN PARA ASEGURAR LA SOSTENIBILIDAD A LARGO PLAZO, LA FLEXIBILIDAD Y LA ASEQUIBILIDAD PERMANENTE DE PONDEROSA MOBILE HOME PARK.

CONSIDERANDO, que Ponderosa Mobile Home Park es una comunidad que fue establecida en 1957, habiendo ofrecido durante largo tiempo una oportunidad de vivienda asequible a los residentes del Condado de Boulder; y

CONSIDERANDO, que Ponderosa Mobile Home Park, tiene la infraestructura original envejecida y se requiere reemplazarla para garantizar la salud y la seguridad de la vida de los residentes; y

CONSIDERANDO, que el Plan Integral del Valle de Boulder afirma valores comunitarios de larga trayectoria como el compromiso con la sostenibilidad, la inclusividad y la diversidad de los tipos de vivienda y los rangos de precios; y

CONSIDERANDO, que el Plan Integral del Valle de Boulder ha adoptado políticas para facilitar el uso de terrenos orientado a la eficiencia energética, la flexibilidad, la vivienda permanentemente asequible, además de reducir o eliminar problemas de salud y seguridad que afecten a las comunidades de viviendas prefabricadas; y

CONSIDERANDO, que la Ciudad de Boulder ha comprado Ponderosa Mobile Home Park para los fines de anexar la propiedad a la Ciudad de Boulder, reemplazar y mejorar la infraestructura deteriorada y preservar la comunidad como permanentemente asequible; y

CONSIDERANDO, que la mayor parte de los residentes de Ponderosa han vivido en el área de Boulder por muchos años y contribuyen a su economía; y

CONSIDERANDO, que la Ciudad de Boulder está comprometida a colaborar con los residentes para desarrollar e implementar un plan a fin de abordar las necesidades de vivienda de la comunidad, que asegure la asequibilidad permanente y sostenibilidad con certeza; y

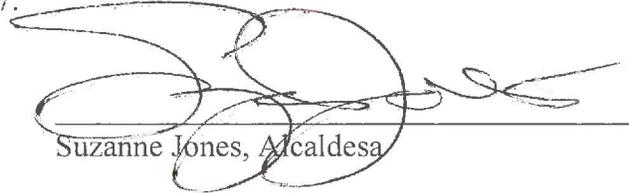
CONSIDERANDO, que la Ciudad de Boulder tiene la intención de ser propietaria de la comunidad solo hasta llevar a cabo las mejoras de infraestructura y luego determinar al propietario futuro en colaboración con los residentes; y

CONSIDERANDO, que la Ciudad de Boulder está comprometida a colaborar con los residentes de Ponderosa Mobile Home Park para emprender un programa de estabilización guiado por los principios de participación de los residentes, sostenibilidad y flexibilidad, desplazamiento mínimo y asequibilidad a largo plazo.

POR LO TANTO, EL CONCEJO MUNICIPAL DE LA CIUDAD BOULDER, COLORADO, RESUELVE QUE:

1 La adquisición, anexación y mejoras de Ponderosa Mobile Home Park, comunidad  
2 situada en 4475 Broadway en Boulder concuerdan con el Plan Integral del Valle de Boulder. Se  
3 le indica por la presente al Administrador Municipal que siga adelante como sea necesario de  
4 manera coordinada con los residentes de Ponderosa Mobile Home Park a fin de proteger la salud  
5 y la seguridad de la vida en la comunidad, que habilite la asequibilidad permanente, promueva la  
6 sostenibilidad y asegure un mínimo desplazamiento de los residentes.

ADOPTADO hoy, 17 de octubre de 2017.

  
Suzanne Jones, Alcaldesa

TESTIGO:

  
Lynnette Beck, Secretaria Municipal



## Land Use

Courthouse Annex • 2045 13th Street • Boulder, Colorado 80302 • Tel: 303.441.3930 • Fax: 303.441.4856  
Mailing Address: P.O. Box 471 • Boulder, Colorado 80306 • [www.bouldercounty.org](http://www.bouldercounty.org)

**TO:** Phil Kleisler, City of Boulder  
**FROM:** Nicole Wobus, Boulder County Land Use  
**RE:** Ponderosa Mobile Home Park- Boulder Valley Comprehensive Plan Land Use Map Change  
**DATE:** August 16, 2019

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On July 17, 2019, Boulder County Land Use received a referral from the City of Boulder regarding a proposed change the Boulder Valley Comprehensive Plan (BVCP) Land Use Map designation for the Ponderosa Mobile Home Park located at 4475 Broadway, as well as the annexation and initial zoning application for the property (case number LUR2019-00014). These comments focus on the applicant's plans for:

1. Annexation and initial zoning of Residential Medium 2 (RM-2)
2. Boulder Valley Comprehensive Plan (BVCP) land use designation change from Manufactured Housing to Medium Density Residential

The Ponderosa Mobile Home Park (Ponderosa) is located in North Boulder on approximately 6.29 acres and comprises 68 mobile homes. The City purchased the Ponderosa property in 2017 and initiated the Ponderosa Community Stabilization program to engage with Ponderosa residents in generating a long-term stabilization program to annex the county enclave in order to improve Ponderosa's infrastructure, provide flood protection, introduce a variety of affordable housing options to the residents, and ensure individual and community needs are met. The proposal includes the phased installation of utility and transportation infrastructure and redevelopment of the property.

The long-term concept (10+ years) includes approximately 68 permanently affordable residential units on fixed foundations. The applicant's plans focus on the foundational principle of minimal displacement to ensure Ponderosa is appropriately transformed into a stable and resilient community. The plans are based on extensive input from residents who have been actively engaged in the planning process for the future of the property.

As an enclave of county jurisdiction in Area II of the BVCP the property is eligible for annexation. As stated in BVCP policy 1.16 (Annexation), the city will actively pursue annexation of county enclaves. That policy further states that "annexation of existing substantially developed area will be offered in a manner and on terms and conditions that respect existing lifestyles and densities. The proposal is consistent with this policy.

The county supports the applicant's proposal to maintain the same number of housing units as currently exists on the property, while improving the structures in a manner that avoids displacement and improves the safety and quality of the structures and infrastructure on the property (i.e., through the construction of fixed foundation homes). The proposed Land Use Map designation of Medium Density Residential would allow for a broader range of housing types and densities than are discussed in the applicant's proposal, including a density as low as 6 units per acre. It is a priority to ensure avoidance of displacement in perpetuity, as well as consistency with the BVCP's policies related to housing (i.e., policies 7.08- Preservation & Development of Manufactured Housing, and 7.15- Minimizing Displacement). Therefore, the county requests the annexation agreement include provisions requiring that housing on the property remains permanently affordable, and that the general density and structure size that currently exists on the property be permanently maintained.

The county recognizes the applicant's holistic design approach (i.e., addressing multiple community benefits) and robust community engagement process as a model for a positive and effective

development outcomes. The county appreciates the opportunity to comment and welcomes further discussion of these comments as needed.