



CALIMESA CREEK MASTER PLAN

Based on Downtown Business District Calimesa Creek Overlay Zone



City of Calimesa
July 2012



Prepared for

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INTRODUCTION

Background

In March of 2010, the City of Calimesa adopted its Downtown Business District (DBD) Code through the Southern California Association of Governments' (SCAG) Compass Blueprint Program. The Downtown Business District comprises approximately 142 acres, generally between County Line Road and Sandalwood Drive, east of Interstate 10 to Park Avenue north of Avenue L and to 5th Street south of Avenue L. The adopted code established new development regulations, design guidelines, and street improvement plans to set this area apart from other commercial areas within the City. The code also created the Calimesa Creek Overlay with specific guidelines for the successful redevelopment of the creek area. The intent of the Calimesa Creek Master Plan is to promote public access to and pedestrian use along Calimesa Creek, to protect and enhance the scenic character of the Downtown, and to improve development potential within the overlay zone.

Since the adoption of the DBD Code, the City has moved forward with a more detailed planning effort to prepare the Calimesa Creek Master Plan. This Master Plan is intended to provide a foundation and vision for future development of the area to turn the creek corridor into an asset for the City, supplemental and complementary to the DBD Code. The Master Plan provides conceptual analyses of the creek drainage system from which alternatives for creek design were developed. It explores measures for creek stabilization and flood control while preserving the natural look of the creek to function as a recreational amenity for the community. In conjunction with aesthetic and functional enhancements of the creek, shared parking strategies were developed to explore the potential for further development of the creek-adjacent properties. The Calimesa Creek area is envisioned to grow incrementally and organically over time into a "green" gateway to the Downtown Business District. As noted in the DBD Code, the overall success of the revitalization of the Calimesa Creek area will depend on the commitment of property owners, the City, Riverside County Flood Control District, and subsequent developers to plan and coordinate development.



The Creek as it currently exists today is a seasonal dry stream overgrown with vegetation that causes flooding and piling of debris.



Project Site Overview

The Calimesa Creek study area includes the general vicinity adjacent to the creek from Interstate 10 to Park Avenue, as shown on Figure 1., *Study Area*. It reflects the Calimesa Creek Overlay within the Downtown Business District. Existing land uses adjacent to the creek are mostly commercial and residential uses. These properties do not currently facilitate public access to the creek. The creek edge is lined with private parking for the commercial uses along County Line Road while fences separate the creek from private residences to the south. The City's civic center is also located within the study area adjacent to the creek.

As an integral part of a major watercourse, Calimesa Creek has a tributary watershed of approximately 890 acres at the project site. The watershed covers areas of both the City of Yucaipa within the County of San Bernardino and the City of Calimesa in the County of Riverside. The studied reach of the creek is approximately 2,100 feet and is composed of varied sections, including rectangular concrete boxes under streets and earthen channel in most open areas. The natural drainage of the channel flows from east to west at a slope of about 3.5 percent due to the elevation difference in the channel bottom

of approximately 75 feet from high point to low point across the study area. The depth of the creek varies from about 15 to 20 feet below adjacent grades while the bottom width ranges from 3 to 6 feet. The channel side slopes vary between 1:1 and 2:1, with a top width of approximately 40 to 60 feet.

Site analysis of the creek identified potential hazards associated with the instability of the creek banks. Several locations along the creek showed high erodibility, especially during periods of high rainfall, with the possibility of undermining the foundation of several built structures. A few culverts at critical junctions along the creek were identified as undersized, most critically at Park Avenue and at Calimesa Boulevard. Detailed information and analyses on the hydrology and existing drainage system of the creek can be found in Appendix A, Calimesa Channel Rehabilitation Conceptual Design Report. Preliminary analysis did not find habitat suitable for endangered species or protected plants within the study area. However, more detailed environmental and biological assessments will need to be conducted at a later phase prior to any physical improvements taking place.

The Calimesa Creek Project is consistent with and seeks to promote the following policies of the DBD Code.

- » Promote the idea of Calimesa Creek as an asset to Downtown Calimesa and integrate the creek with future development
- » Emphasize pedestrian access and connections between and within developments
- » Enhance the visual and aesthetic character of development, while providing areas for the public to gather
- » Allow for and encourage a denser pattern of development than exists today
- » Enhance property values and increase economic and financial benefits to the City and the community
- » Promote high standards for pedestrian safety, site planning, and landscape design.



Figure 1. Study Area



Community Involvement

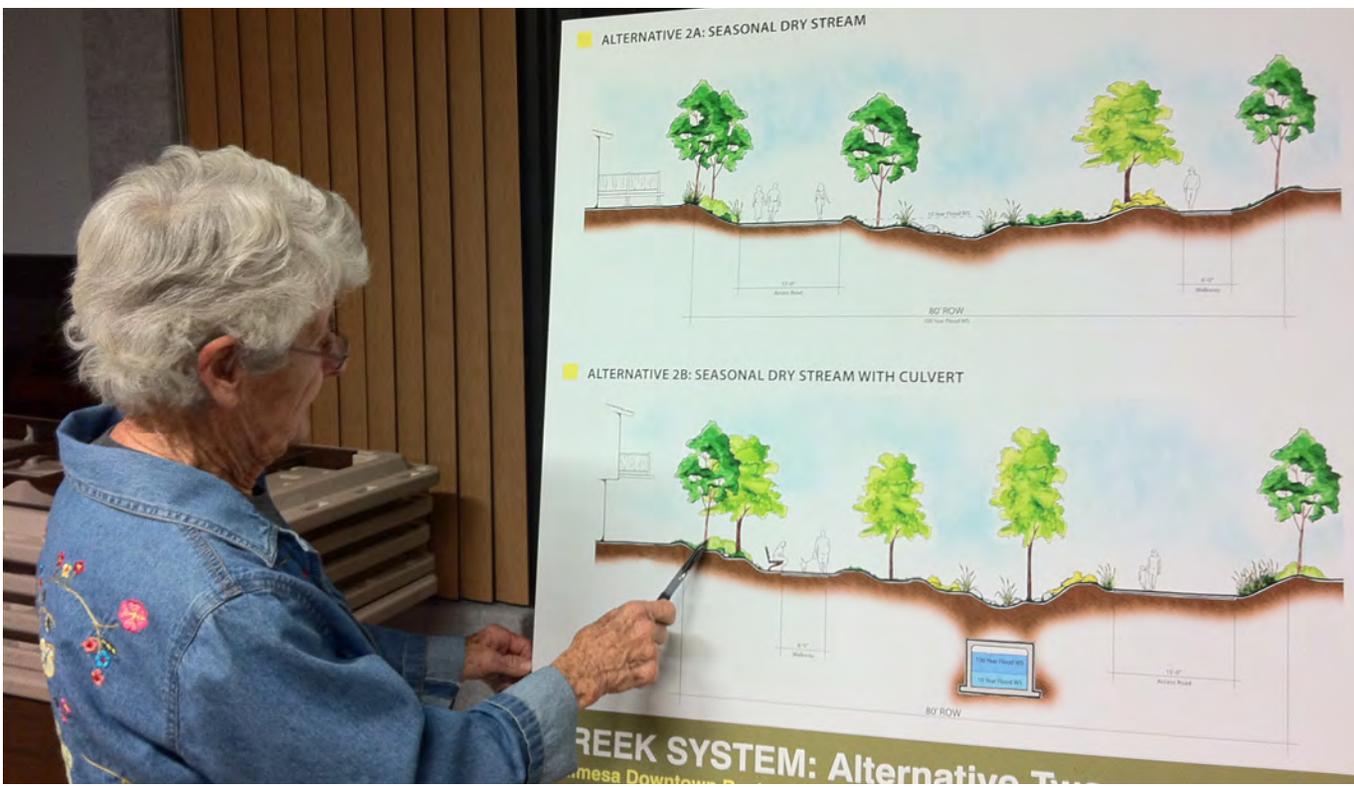
The active involvement of the community played a significant role in developing the Calimesa Creek Master Plan. An Ad Hoc Creek Committee was formed with members from the City Council, Planning Commission, Public Works and Safety Commission, Trails Commission, Community Services Commission, and the business community. During the course of the project, the Committee met five times to conduct a site visit, discuss pertinent issues, review design alternatives, and provide input on the final conceptual plans for Calimesa Creek.

A public community workshop was also held to gather input from the surrounding neighborhood and general public. The workshop was held in the evening on December 13, 2011, at Calimesa City Hall. Property owners within a 500-foot radius of the proposed project were notified by mail with a full-page notice. Notices were also posted and distributed through various media outlets, including the *NewsMirror*, public announcement boards, the City's website, and other social networking sites. The workshop was attended by residents, business owners, and other interested parties from neighboring areas and the City of Yucaipa. The workshop format consisted of a

brief presentation followed by an open forum for questions and answers. The presentation provided an overview of the Calimesa Creek project, including existing conditions, analyses of the drainage system, parking conditions, and proposed creek design alternatives. After the presentation, workshop attendees were invited to review exhibits and engage in discussions with the team.

In general, workshop attendees were excited about the potential improvements envisioned to prevent future flooding and improve the aesthetics of the channel. The input provided by the participants showed support for the enhancement of the creek as a natural flowing stream and the installation of a pedestrian bridge. However, most of the participants were not in favor of a vehicular bridge across Calimesa Creek within the study area. Participants also expressed a desire to have gateway monumentation at the intersection of County Line Road and Calimesa Boulevard to provide a distinctive identity for the City of Calimesa and entrance to the Downtown Business District. Many of the attendees also showed interest in continuing this theme along Calimesa Boulevard.

Some of the issues expressed by workshop attendees included details of the enhanced creek system, such as the aesthetics of the stream becoming too artificial; the cost effectiveness of a flowing water system, both year round and seasonally; and future construction, operations, and maintenance costs and functions. There was also concern about maintaining the "small town" character of the community in potential future developments. These issues were duly noted and to the extent possible addressed in the proposed plans in this Master Report. Questions were also raised about plans to continue creek enhancements east of Park Avenue and potentially to the future public park. It was explained that the section of Calimesa Creek from Park Avenue to 5th Street is within the City of Yucaipa's jurisdiction, thus the need for collaboration between the two jurisdictions and respective county flood control agencies.





Example of revitalized creek
Photo courtesy of PACE Engineering

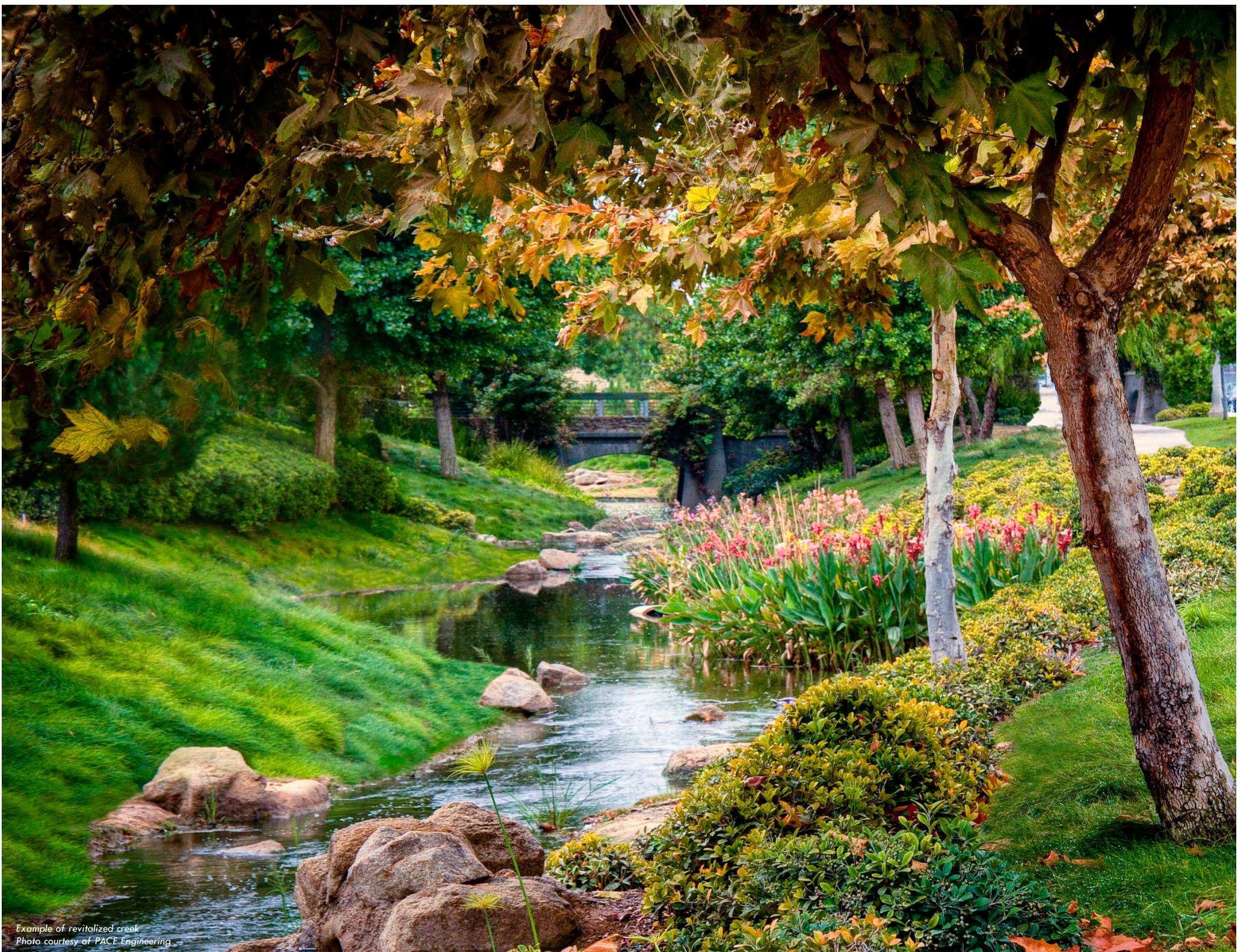
CREEK MASTER PLAN

Overview

Calimesa Creek presents a unique opportunity to improve channel drainage conditions for a multi-jurisdictional watershed while enhancing the creek area as a recreational amenity and increasing economic development potential for the community. As the Downtown Business District's north gateway, previous urban design analysis recommended the creation of a "green entry" with iconic gateway features to provide a unique and distinctive character to the City of Calimesa. The project is intended to be a catalyst for future development of creek-adjacent properties and the creation of walkable and bikable connections to other public amenities such as the downtown businesses and the future public park between 5th and 4th Streets. As stated previously, cooperation and collaboration with neighboring jurisdictions will be necessary to continue the connection from the Calimesa Creek project area to the public park, since the creek fluctuates between the City of Yucaipa and the City of Calimesa.

Creek Drainage System

Several alternative channel configurations were developed that would improve the drainage system and also re-create the creek into a public amenity. The steep slopes and channel bottom of the existing creek will be modified to accommodate the proposed improvements of each alternative. Respective standard hydraulic analyses were conducted to confirm that these alternatives would provide 100-year flood protection while meeting the freeboard requirements of Riverside County Flood Control and Water Conservation District (RCFCWCD) for the studied reach of Calimesa Creek. Details and results of the hydraulic analysis of each alternative are included in Appendix A, Calimesa Channel Rehabilitation Conceptual Design Report. Additional analyses were conducted to identify the most cost-effective and desirable configuration for future development of the project site.



Example of revitalized creek
Photo courtesy of PACE Engineering

Alternative 1: Seasonally Dry Stream

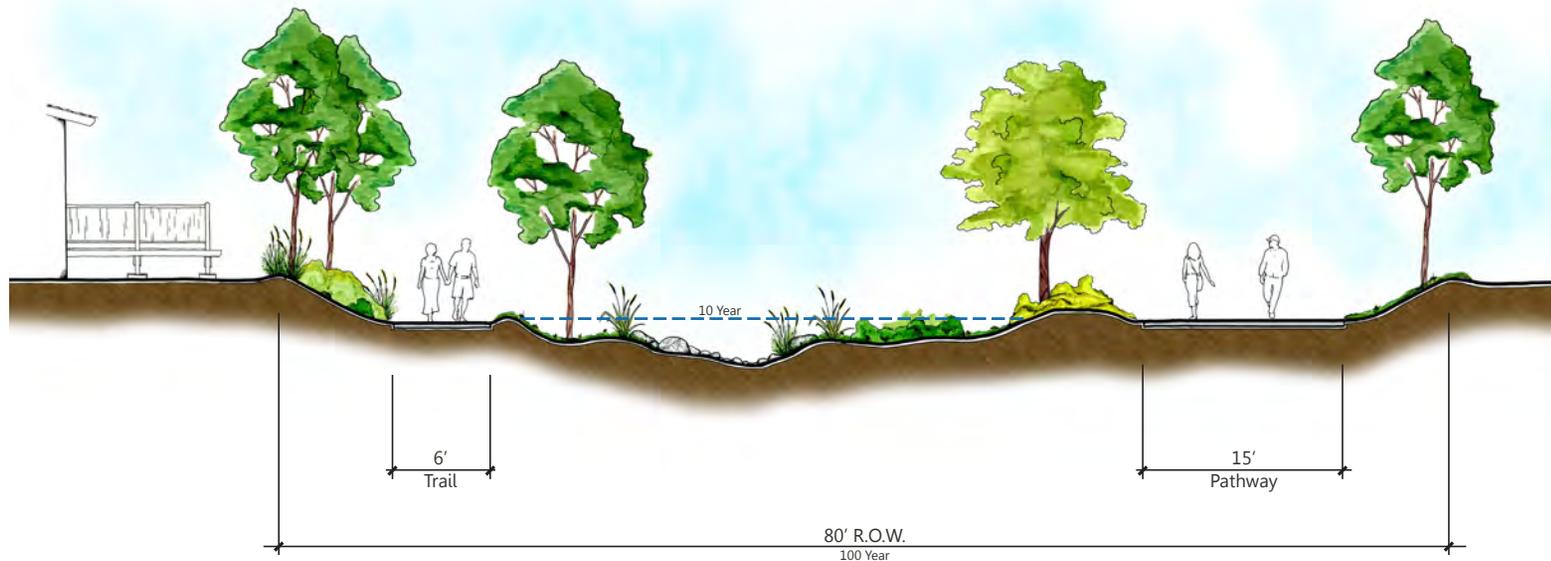
The seasonally dry stream alternative rehabilitates the creek bed as a rock-bottom channel. As shown below, this alternative is relatively simple in concept and will resemble a naturally vegetated dry stream with seasonal water flow. The existing creek bed will be raised sufficiently to allow a shallow water flow of less than 2 feet to maintain safety and accommodate 10-year storm water levels. A 15-foot-wide pathway is proposed on one side of the stream for pedestrians and bicyclists, as well as for maintenance and emergency

access for vehicles. A minimum 6-foot-wide trail is proposed on the other side of the creek for pedestrians only. In addition to providing access to and along the creek, both the pathway and trail are designed for peak flow conveyance in the case of 100-year storm water levels. Side slopes will be landscaped and are proposed to have a minimum 3:1 grade to prevent erosion of the banks. The approximate right-of-way required to accommodate these features is 80 feet.



Example of seasonally dry stream
Photo courtesy of PACE Engineering

Figure 2. Alternative 1: Seasonally Dry Stream



Alternative 2: Recirculated Stream

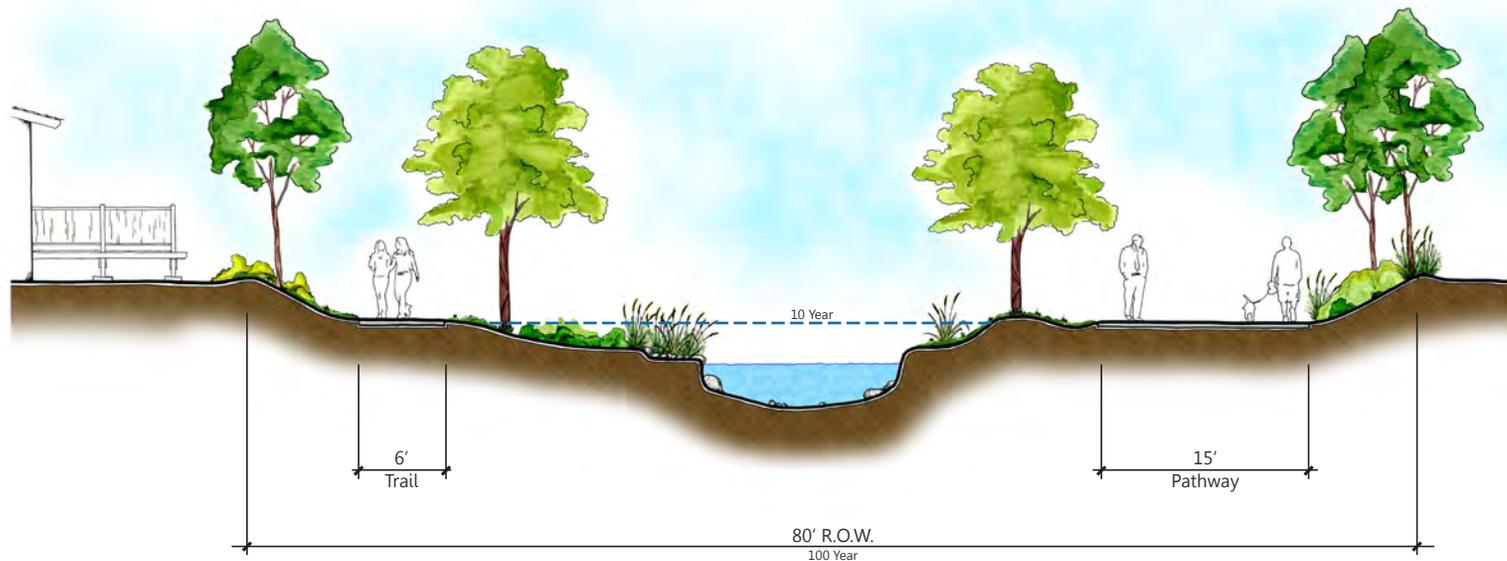
The recirculated stream alternative, as shown below, would provide a natural flowing stream throughout the year through the use of drop structures and pumps. This alternative has a minimum 10-foot-wide stream with side slopes to protect the creek bank from erosion. A series of small waterfalls may be used to slow water flow speed and provide visual interest. Similar to Alternative 1, a 15-foot-wide pathway is proposed on one side of the stream and a minimum 6-foot trail on the other. Both the pathway and trail are

designed for peak flow conveyance in the case of 100-year storm water levels, thus reducing the overall required right-of-way for the creek and trails to 80 feet. The City may choose to locate one or both trails outside of the 100-year flood plain, which would increase the ultimate right-of-way. Small storms are held within the banks of the recirculating stream, thereby reducing the frequency of maintenance of the trails and landscaping outside of this area.



Example of recirculated stream
Photo courtesy of PACE Engineering

Figure 3. Alternative 2: Recirculated Stream



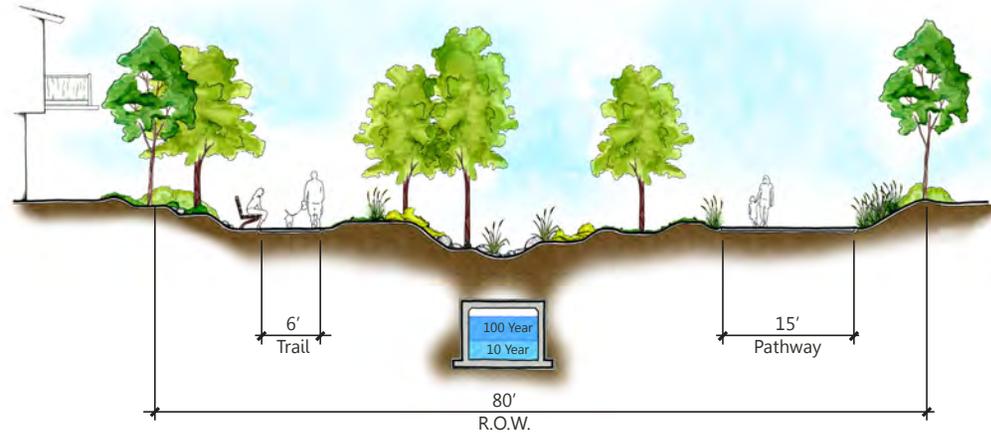
Alternative 3: Culvert Channel

Alternative 3 proposes a culvert underground and either a seasonally dry stream (Option A) or a recirculated water feature (Option B) on the surface, as shown in Figure 4. The culvert is proposed as an 8-foot-wide by 6-foot-high concrete box to convey the majority of large flood flows. This would reduce above-ground water flow, which would lead to a reduction or possible elimination of flooding of landscaped areas and paths. However, this alternative would incur additional costs associated with construction and maintenance of the culvert. Details on construction and maintenance costs are provided in Appendix A.

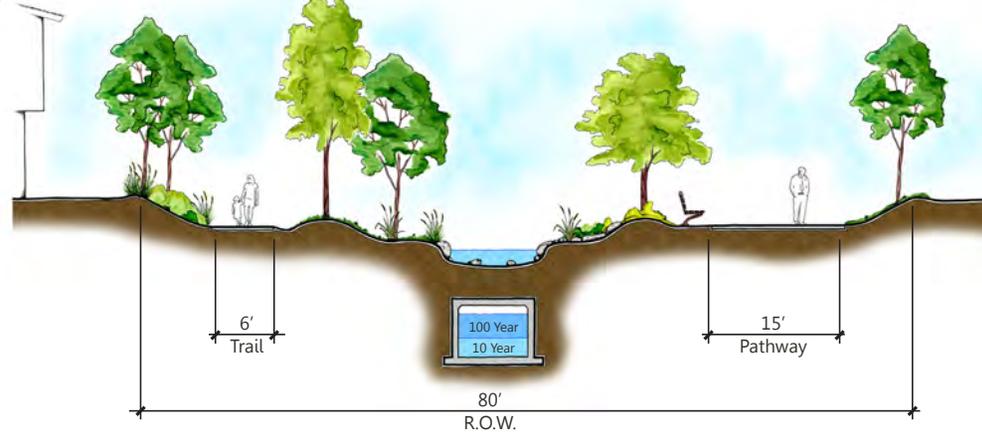
The configuration of the creek design would be similar to the other two alternatives with a 15-foot-wide pathway on one side and a minimum 6-foot-wide trail on the other. The actual location and alignment of the pathway and trail may differ from the conceptual illustrations in Figures 2 to 4 as deemed necessary and appropriate by the City. Though the integration of an underground culvert allows greater flexibility in the horizontal design of the creek, an approximate 80-foot right-of-way is recommended to preserve a natural environment and setting for comfort and enjoyment.

Figure 4. Alternative 3: Culvert Channel Options

» Option A: Seasonally Dry Stream



» Option B: Recirculated Stream



Preferred Creek Drainage System

To reach a decision on the preferred creek drainage system, the Calimesa Creek Ad Hoc Committee examined the following factors to evaluate the pros and cons of each alternative.

- » **Public Workshop Feedback.** Comments received at the public workshop, as summarized in Chapter 2 of this Master Report, were given high priority throughout the selection process.
- » **Public Acceptance.** The public's general perception, positive or negative, was considered for each alternative. Different factors such as the anticipation of construction conditions, preservation of view sheds, and creation of a unique community identity generally influenced the level of public acceptability.
- » **Adjacent Property Impacts.** Possible impacts of each alternative to property values and economic development were considered. Neighborhood property will benefit from the flood control improvements under all three alternatives. In addition, property owners are expected to benefit from enhanced views, proximity and accessibility to public amenities, and expanded development capacity.
- » **Financial Implications.** Future funding strategies and costs associated with

construction, operations, and maintenance were discussed in detail for each of the alternatives.

- » **Drainage Efficiency.** Each alternative was reviewed in terms of the ease and flexibility with which it could handle extreme water levels, especially when considering sediment balance and bank erosion prevention.

The greatest and most immediate concern was efficiency of the drainage system and its financial implications. With the possible threat of eroding

creek banks leading to safety hazards and other maintenance issues, the committee determined that the need for a culvert outweighed its financial costs, thus selecting Alternative 3 as the preferred creek drainage system. The committee continued discussions on the option of a dry stream or a recirculated stream above the culvert and ultimately decided that they wanted the option of transitioning from a dry stream to a recirculated stream if funding was available in the future.



Example of seasonally dry stream



Example of recirculated stream

Recommended Landscape Palette

The recommended landscape palette consists of a variety of native species that can be used to create an attractive and rich riparian corridor suitable as a public amenity. The native noninvasive palette is in concordance with the County of Riverside Friendly Plant List. This palette is intended to complement and supplement the existing plant species in the Calimesa Creek area and may be planted in both the 10-year and 100-year flood plain areas. It is beneficial to plant native species as it prevents proliferation of invasive non-native species and does not require frequent irrigation beyond the establishment period. It also decreases maintenance operations and costs and improves fuel modification.

The tree palette includes a variety of specimens with seasonal colors. These trees help create a comfortable and inviting environment year-round while providing efficient erosion control. Recommended vegetation along the creek bed includes native noninvasive grasses rather than fescue type grasses. Planting along the dry creek bed should especially incorporate low-stature native plants that are visually interesting and lush. If properly designed and regularly maintained, this landscaping can last indefinitely.



California sycamore (*Platanus racemosa*)
A majestic deciduous tree that typically has twisting branches and trunks, giving it a sculpted appearance.



Engelmann oak (*Quercus engelmannii*)
A medium-sized evergreen with a wide canopy that can provide shade year round.

TREES



Strawberry tree (*Arbutus unedo*)
A medium-sized tree with lantern-shaped flower clusters and edible fruit, known for its twisting trunk and branches.



Western redbud (*Cercis occidentalis*)
A small accent tree with showy clusters of bright, colorful flowers during spring.



Coyote Brush (*Baccharis pilularis*)
An evergreen common in the area, with dense attractive shrubs that attract butterflies and hummingbirds.



Fuchsia Flowered Gooseberry (*Ribes speciosum*)
A common shrub found within washes in hills, it blooms attractive red flowers that attract hummingbirds.



Black Sage (*Salvia mellifera*)
An easy-to-grow shrub with attractive flowers that attract hummingbirds.

SHRUBS



California Buckwheat (*Eriogonum fasciculatum*)
A low-flowering shrub that tolerates many conditions, it blooms almost year round with flowers that attract butterflies.



Chuparosa (*Justicia californica*)
A low-growing shrub with green stems and red flowers that bloom all winter.



Cleveland Sage (*Salvia clevelandii*)
An attractive shrub with great aroma, its silvery leaves and blue flowers attract hummingbirds when in bloom.

Creek Design and Development

Creek Design Scenarios

The Calimesa Downtown Business District Code provides a Creek Overlay Zone over the project area to facilitate enhancement of the creek and spur economic development. Based on review of available records, there appears to be no easement or other legal provision for ownership or maintenance of Calimesa Creek by either the City of Calimesa or the Riverside County Flood Control and Water Conservation District. Therefore, it is assumed that the creek channel is in private ownership. To improve creek conditions, the City will need to obtain a public easement over the creek right-of-way to help maintain any proposed improvements in the future.

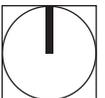
As identified in the hydraulics analysis, the recommended width of the creek easement is approximately 80 feet. Two scenarios are presented for the alignment of the easement. Scenario 1 proposes a typical offset of 40 feet to either side of the creek center line, as shown on Figure 5. This would create an 80-foot easement that roughly follows the existing creek course. Advantages of this scenario is that it would preserve the existing creek flowline. However, due to existing creek

conditions, this design would not include some of the existing bank slopes that have eroded over time and need to be stabilized. This scenario would also affect the development potential of some properties because it encroaches into some parcels outside the existing creek area.

To ensure that all existing bank slopes are included within the easement and that developable land on either side of the creek is maximized, Scenario 2 realigns the creek assuming a minimum width of 80 feet from the edge of currently developed properties along County Line Road, as shown on Figure 6. This Master Plan recommends Scenario 2, where the 80-foot easement is refined to preserve developable commercial property and include all portions of the creek bed in need of stabilization. Some areas of improvements, however, would impact portions of residential properties to a greater extent than current conditions. This alternative provides greater flexibility in creek design while lessening maintenance and hazardous conditions for private business and residence owners along the creek edge.

In either alignment of the creek, the actual design of the creek bed will be finalized upon development approval by the Planning Department. It is recommended that the creek design include undulation with a combination of narrow and wide creek beds. If the creek is designed to incorporate a recirculating water system, the use of a series of small waterfalls is recommended to naturally clean water, improve aesthetics, and easily compensate for the required slope of the creek for water velocity. Feedback from the public workshop and Ad Hoc Creek Committee meetings showed a favorable interest in the realignment of the creek as proposed in Scenario 2. A pedestrian bridge is proposed in both scenarios per comments from the public workshop. The final location of the bridge may be determined at a later phase.





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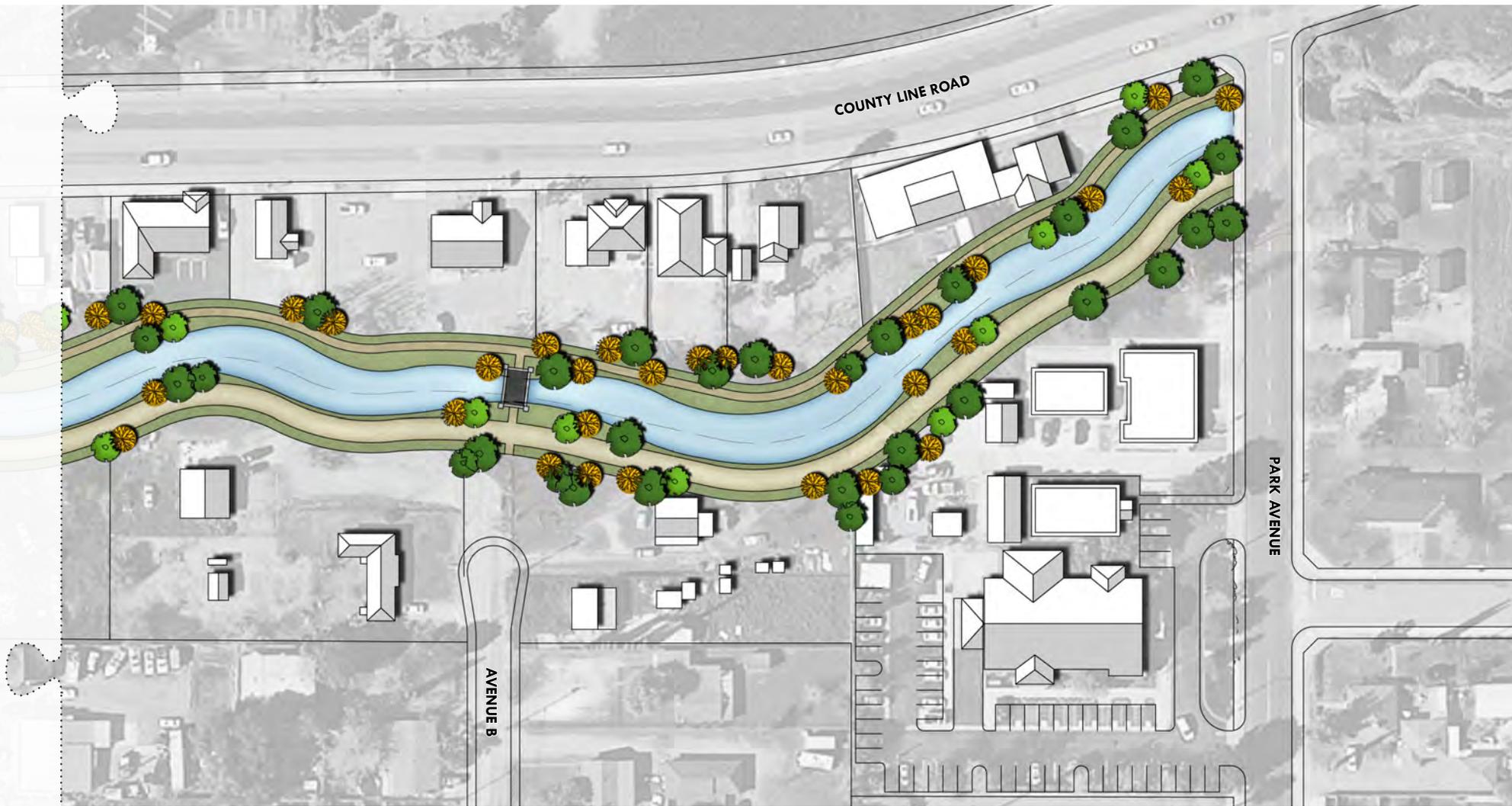
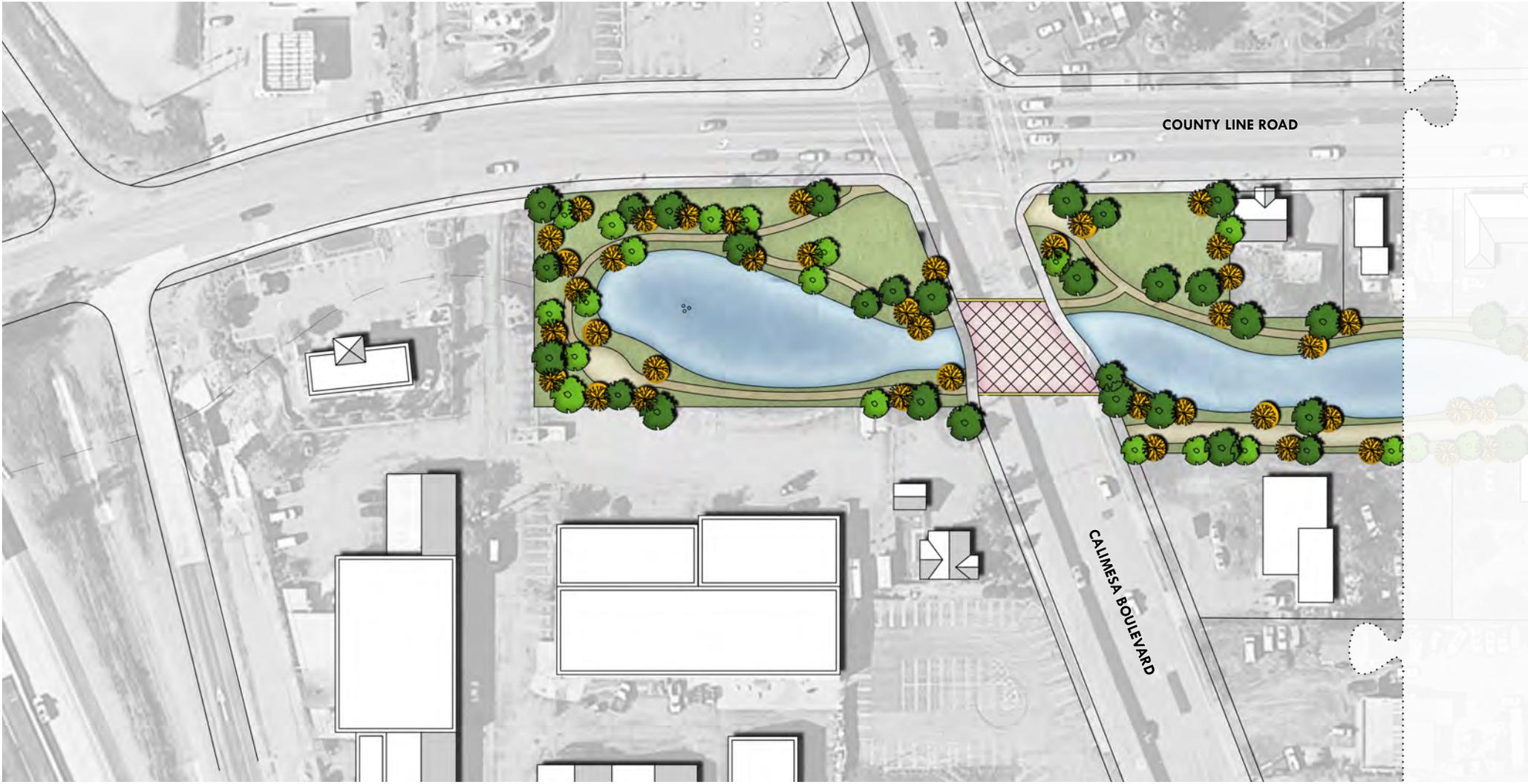
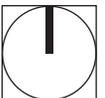


Figure 5. Creek Design Scenario 1



COUNTY LINE ROAD

CALIMESA BOULEVARD



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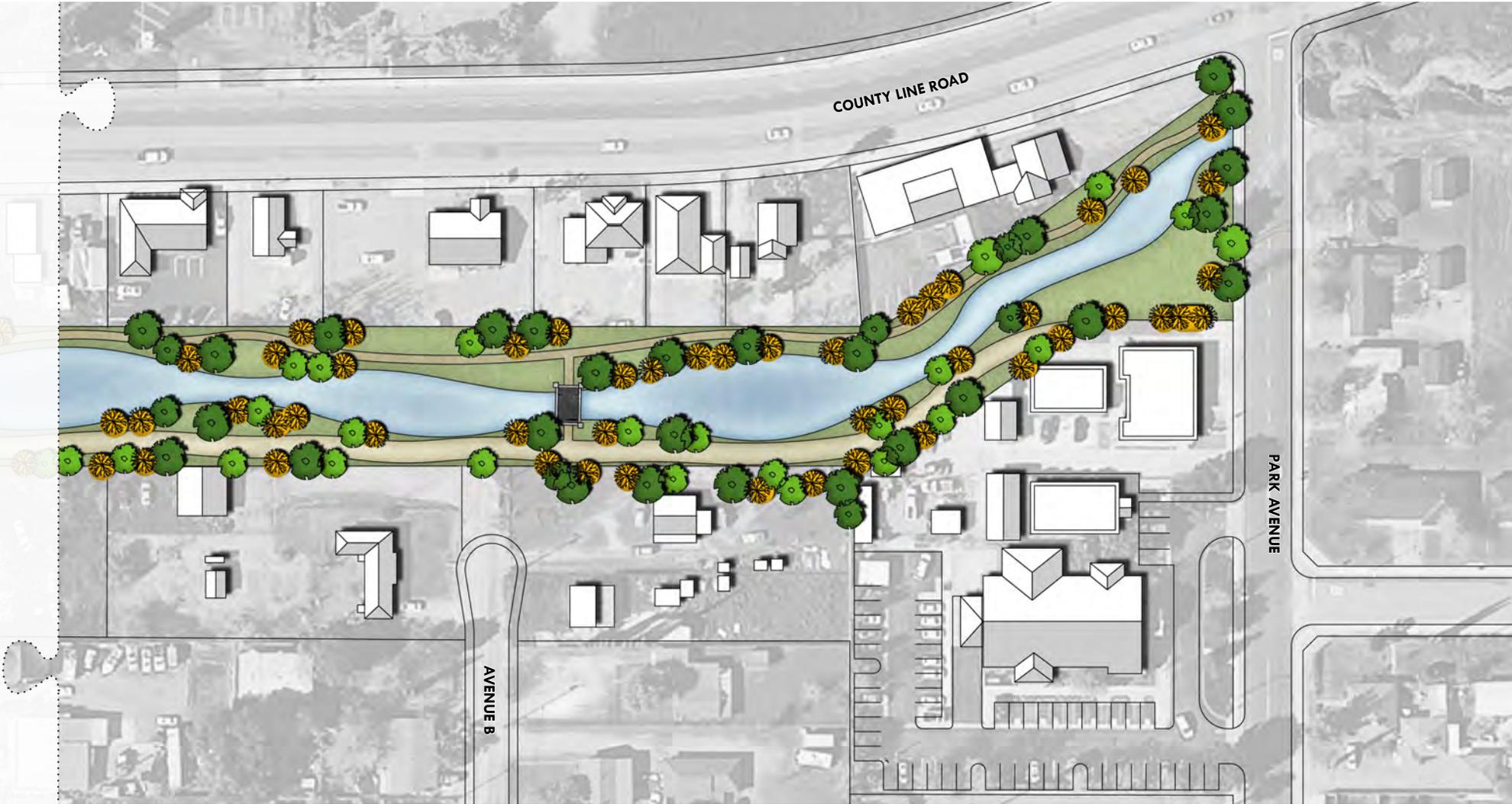


Figure 6. Creek Design Scenario 2

Development Strategy

Future development within the Creek Overlay Zone will be in accordance with the City of Calimesa General Plan, the Downtown Business District Code, and other regulatory documents. It is the intent of the DBD Code and this Master Plan to maximize development potential along the creek to take advantage of proposed creek improvements. Therefore, as summarized below, future parking strategies and right-of-way improvements along key roadways were evaluated as part of this Master Plan.

OFF-STREET PARKING

The DBD Code and Calimesa Municipal Code currently identify requirements for off-street parking within the Downtown Village Commercial (DVC) Zone, which includes the Calimesa Creek Overlay Zone. The DVC Zone is intended to create a pedestrian-oriented living and working experience through the development of more traditional downtown mixtures of land uses, such as entertainment, retail, office, and cultural uses. Both ordinances provide parking requirements for individual land uses and for shared parking among multiple adjacent land uses. Currently, businesses fronting County Line Road provide individual parking accommodations for their

guests with no shared parking plan. To increase development potential within the Calimesa Creek Overlay Zone, the Calimesa Creek Master Plan strongly encourages shared parking and proposes a conceptual strategic plan for shared parking. This conceptual plan, shown in Figure 8., *Strategic Development Plan*, aims to provide sufficient parking for employment and commercial businesses while reducing the amount of extraneous parking. Consolidating parking will in turn provide additional land for new development. Actual development and parking configurations shall require approval from the City.

In general, shared parking may be approved for adjacent properties with compatible land uses that can accommodate a common parking area. Shared parking may be credited if peak parking demand of adjacent land uses occur at nonconflicting hours. Examples of combining noncompeting land uses are offices and retail stores, which have a daytime peak parking demand, with residences and theaters, which have a nighttime peak parking demand. By positioning complementary land uses to share a parking facility, peak parking demand of both

uses can be accommodated. The City may require a Shared Parking Analysis of the applicant to demonstrate that there is no substantial conflict in the principal operating hours of adjacent land uses. This will usually involve conducting parking counts at peak hours of the common parking area to verify that it can accommodate peak parking demand throughout the entire day.

To facilitate shared parking, all parties involved in the shared use of off-street parking facilities will need to execute an agreement with the City. The agreement will ensure that continued availability of shared parking spaces for the life of the proposed development or use is reserved. Shared parking facilities will abide by DBD Code and Calimesa Municipal Code regulations related to the design, maintenance, and operation of shared parking facilities.



Figure 7. Existing Conditions

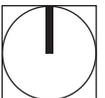


NOT TO SCALE



COUNTY LINE ROAD

CALIMESA BOULEVARD



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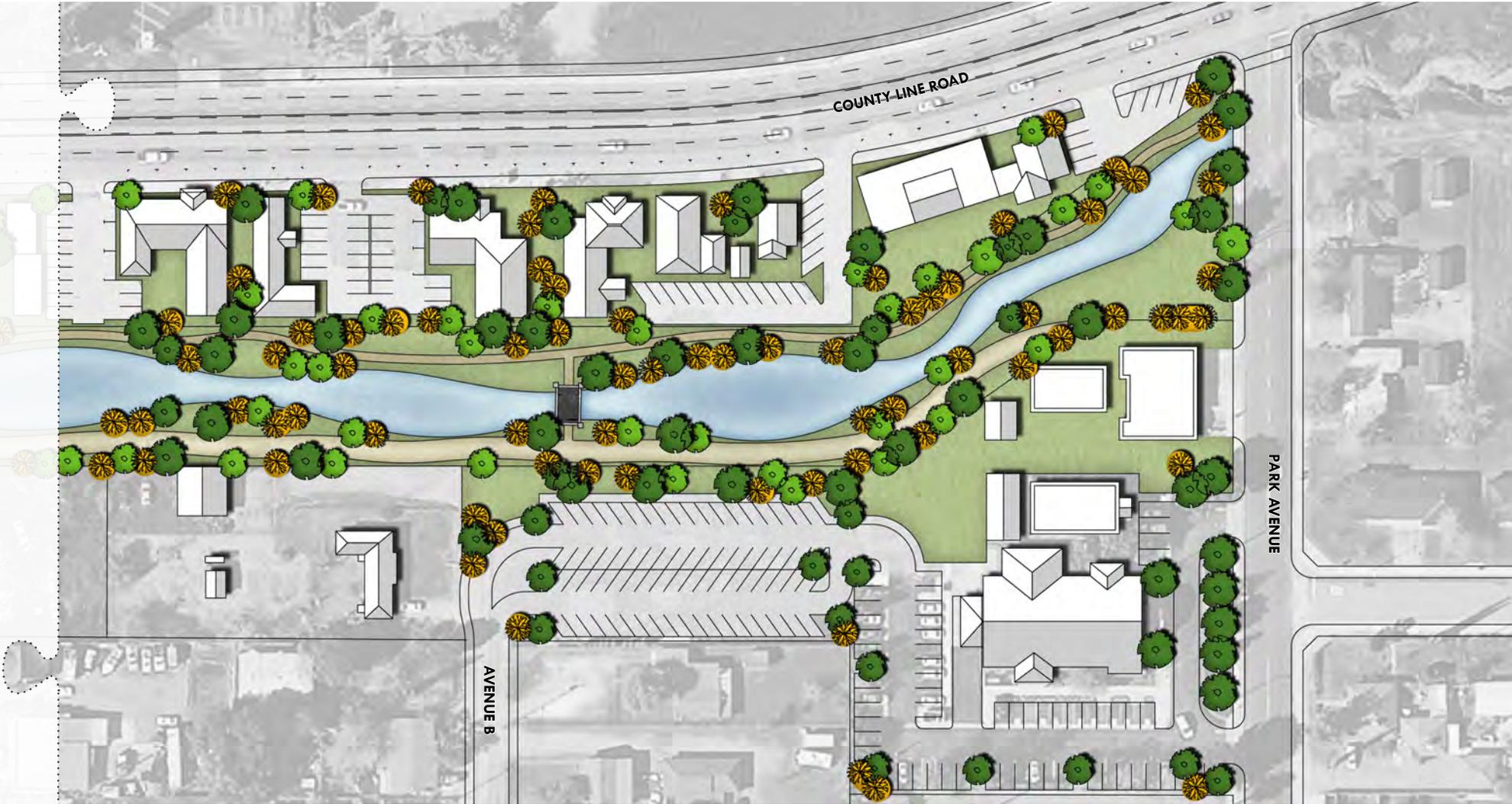


Figure 8. Strategic Development Plan

The following guidelines have been proposed, in addition to the current ordinance, to effectively implement shared parking facilities.

- » Shared parking facilities should provide direct, safe, and unobstructed access within 600 feet of any structure or use.
- » Adequate and legible signage should be provided to patrons and tenants indicating the availability of the facility.
- » Alternating single-stall parking spaces with tandem parking facilities for guests is discouraged.

To assist the City in drafting shared parking agreements, potential shared parking agreements are provided in Appendix B.

In addition to consolidating parking areas of individual land uses, the implementation of shared parking also decreases the number of driveways needed to supply a commercial center. Portions of the curb not used for access driveways can then be dedicated to provide additional on-street parking.

ON-STREET PARKING

On-street parking not only provides additional parking spaces for businesses but also creates a

buffer between vehicular and pedestrian traffic and, therefore, is often used as a traffic-calming technique. On-street parking on County Line Road and Calimesa Boulevard would enhance the walkability of the DVC Zone and better support the vision of the DBD Code and the Calimesa Creek Master Plan.

As shown in Figure 7., *Existing Conditions*, there are currently multiple access driveways on County Line Road within the Creek Overlay Zone based on the existing development pattern. Many of these existing driveways provide access to a single business. The number of driveways, on approximately 850 feet of curb, dramatically reduces the on-street parking capacity on County Line Road. Under existing conditions, County Line Road may potentially accommodate only 18 parallel-parking spaces. The consolidation of driveways will provide additional curb segments, increasing the on-street parking capacity along County Line Road. It is anticipated that approximately 35 parallel parking spaces could be provided from this driveway consolidation. Consolidated access to parking lots also allows for better traffic circulation because it reduces the number of potential points of conflict with traffic in the traveling lanes on County Line Road. With approval from the Community Development

Director and City Engineer, on-street parking spaces could potentially be dedicated for commercial use, thereby reducing the number of required off-street parking spaces in adjacent properties.

Calimesa Boulevard currently provides parallel off-street parking between County Line Road and Avenue K. To take advantage of the existing roadway design of Calimesa Boulevard, angled parking spaces are proposed to be striped along the corridor to increase the supply of on-street parking and slow down traffic – a method strategically applied to traditional retail neighborhoods to help drivers become more aware of stores and services. Conceptual on-street parking plans for County Line Road and Calimesa Boulevard are provided on Figures 9 and 10.



Intersection of Calimesa Boulevard and County Line Road

Streets and Public Frontages

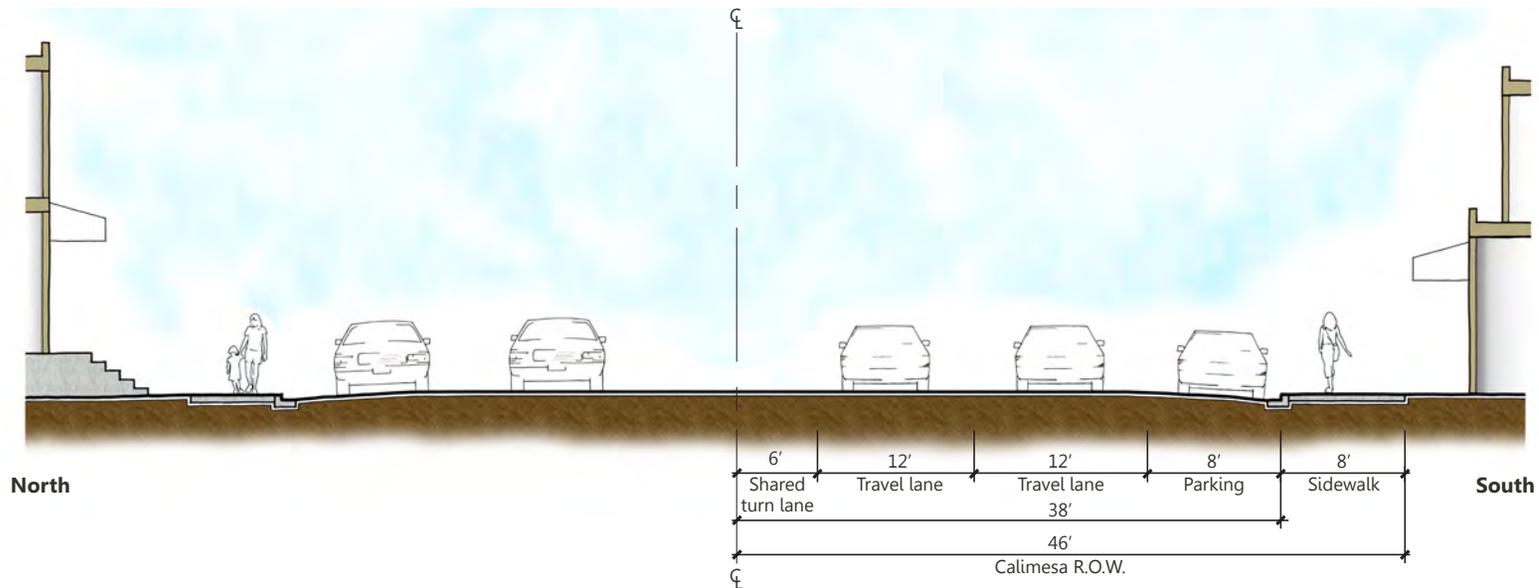
COUNTY LINE ROAD

Between Calimesa Boulevard and Park Avenue, County Line Road currently has one traveling lane in the eastbound direction and two traveling lanes in the westbound direction, separated by an open median. The City of Calimesa retains the portion of County Line Road south of its right-of-way centerline. Therefore, the Master Plan proposes to provide an additional travel lane and striped, on-street parallel parking in the eastbound direction.

The increased capacity will improve circulation along the corridor and create consistency between both directions of travel. The median will still provide ingress/egress access to businesses fronting County Line Road. Curb cut-outs at the intersection of County Line Road and Calimesa will also create shorter crosswalk distances for pedestrians.



Figure 9. County Line Road Cross-Section



CALIMESA BOULEVARD

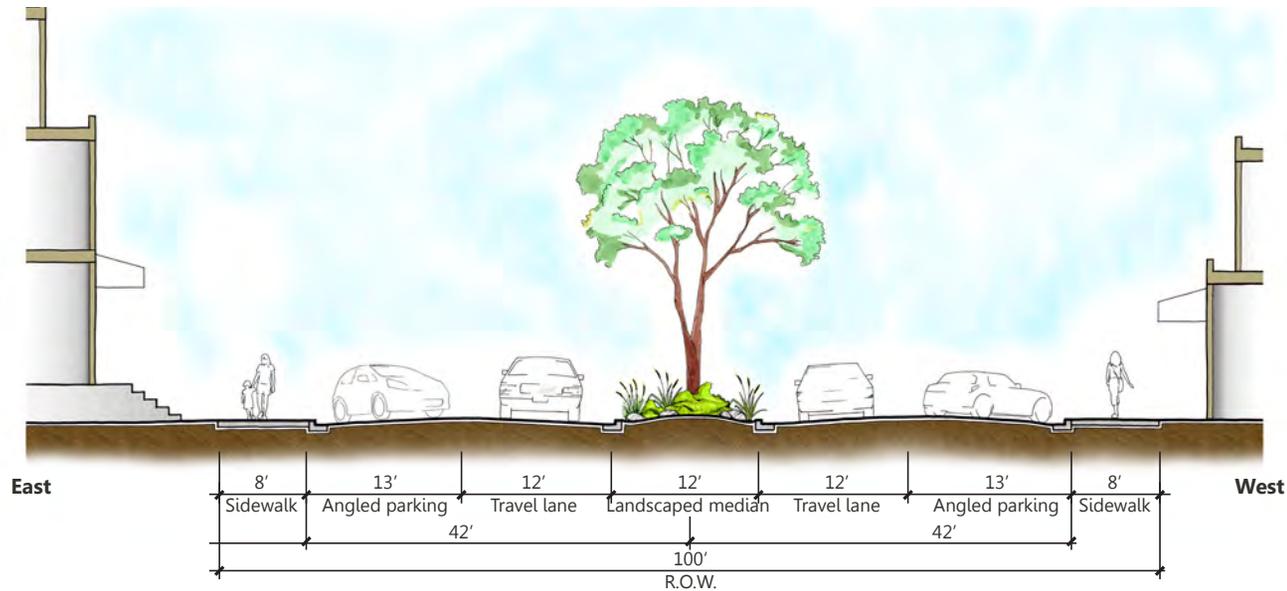
Calimesa Boulevard between County Line Road and Avenue K currently has two travel lanes in both directions, separated by an open median. The Master Plan proposes to provide two lanes of travel with striped, on-street angled parking in both directions of travel, separated by a landscaped median. The proposed configuration works to simultaneously decrease travel speeds and increase pedestrian safety, which will help

create an environment that will attract more businesses and tourism.

In addition, this Master Plan proposes a bridge treatment where Calimesa Boulevard intersects with Calimesa Creek and the installation of an entry monument. This will heighten the identity of the City of Calimesa and create a more inviting entrance to the Downtown Business District.



Figure 10. Calimesa Boulevard Cross-Section



Gateway Concepts

The purpose of the gateway monumentation is to reinforce the identity of the Downtown Business District and the City of Calimesa while introducing Calimesa Creek as a welcoming amenity to the public. The gateway concepts provided in this Master Plan present a range of designs fitting of an identifiable and lasting landmark.

The first gateway concept, shown in Figure 11, captures the form and spirit of the San Bernardino mountains in the background through the use of horizontal planes at varied levels. Vertical planes made of rough stone are placed at varying depths to create changing shadow patterns throughout the day. As an addition, a water feature may be integrated into the design. Trickling water along the rough stone surface and a shallow reflection pond generally provide visual interest and intrigue to on-lookers. The “Rise and Shine” branding of the Downtown Business District is captured in the script-font, brushed-bronze Calimesa sign. The prominence of this monument is enhanced after dusk with up-lit ambience lighting at the front of the structure.

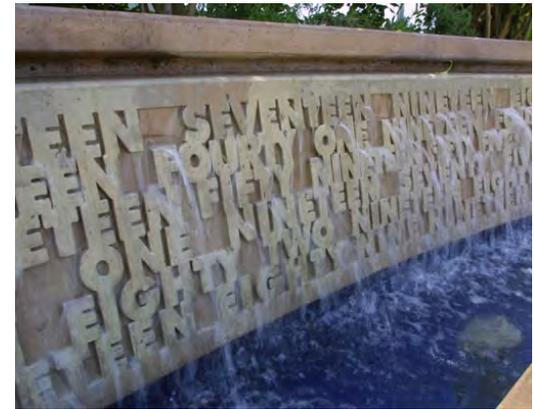
Figure 11. Gateway Concept 1



The second gateway concept is similar to the first but provides a simpler and more elegant design, more identifiable for passing vehicular traffic. As illustrated in Figure 12, this design features the “Rise and Shine” branding of the Downtown Business District more prominently against a backdrop of stacked stone and flowing water. The brushed bronze lettering would be off-set from the surface of the monument to allow for backlighting. In addition, lights may be installed in the shallow pool to enliven the monument while simultaneously creating a serene ambience for pedestrians.

The area around the monuments should be landscaped so as not to obstruct the view of the structure but enhance its visibility and aesthetic appeal. Materials used in the gateway monumentation should preferably be native and natural to the landscape it is integrated in. Water features should also be designed to utilize the improved channel system of the future Calimesa Creek, if possible.

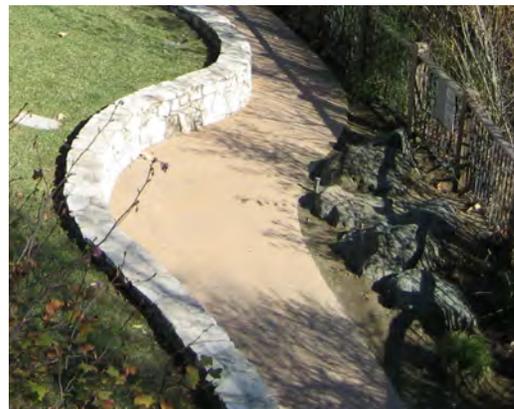
Figure 12. Gateway Concept 2



Illustrated in Figure 13, the third gateway concept is designed as an artistic sculptural representation of the local land form. The centerpiece represents the branding of "Rise and Shine" with the brushed metal lettering of the words "Calimesa" rising over the mountains and shining in comparison to the natural surface of the sculpture. The two "C's" serve as identifiers for both Calimesa Creek and the City of Calimesa in addition to the "Rise and Shine" symbol in the center of the monument. The curvilinear structure represents the physical form of Calimesa Creek as it intersects and passes through the City of Calimesa. Landscape mounds create a backdrop for the monument, silhouetting the San Bernardino mountains.

This design provides an experiential landscape for pedestrians while also functioning as an identifiable entry landform into the Downtown Business District for vehicles. Creative lighting techniques can be used to enhance the visualization of the sculpture at night.

Figure 13. Gateway Concept 3



Administration and Implementation

Future Considerations

The Calimesa Creek Master Plan provides a series of feasible alternative creek designs that will be the basis for additional study. The City has selected a preferred alternative, which will be the main focus of attention moving forward; however, it is important to note that there remain a number of key steps that will impact the final design of

the creek drainage system. For that reason, preliminary costs estimates for each of the alternatives have been prepared and incorporated in Appendix A. These cost estimates include the cost of construction, engineering and design, and construction administration. In addition, the tasks associated with preventative maintenance

and routine inspections have been identified for each alternative, along with annual operation and maintenance costs. These costs will continue to be refined through the detailed design process.

Figure 14. Planning Process



Recommended Next Steps for the City of Calimesa

1. TITLE SEARCH

The City needs to undertake a title search to confirm ownership of the creek and potential easements over the corridor. An initial review of property records indicates that the creek is in private ownership and there is no recording of an easement by the Riverside County Flood Control District. If that is the case, the City will need to develop easement agreements and contact landowners to secure easements for project construction, ongoing maintenance, and public access.

2. COORDINATION WITH COUNTY FLOOD CONTROL

With the completion of this Master Plan, it is time to begin coordinating with the County Flood Control District. The County maintains underground segments of Calimesa Creek upstream, but has left the regular maintenance of the open channel to the City. Coordination with the County is required to discuss ongoing maintenance of the channel and County requirements for the design.

3. DELINEATION OF JURISDICTIONAL WATERS AND HABITATS

The City needs to undertake a delineation of waters and habitats that may be subject to state or federal jurisdiction. This includes areas within the

creek that may be deemed "Waters of the United States" and therefore subject to the jurisdiction of the U.S. Army Corps of Engineers, or areas that may be deemed "Waters of the State" and therefore subject to the jurisdiction of the California Department of Fish and Game. This Master Plan contains the full-spectrum hydraulic analysis that will be needed to perform the delineation. In addition, a biological assessment of the creek also needs to be undertaken to determine the presence or absence of any threatened or endangered species. Preliminary discussions with the permitting agencies should then be undertaken to discuss mitigation requirements and ratio of impacted area to mitigation area. The mitigation requirements will vary based on alternative creek designs. Generally, the culvert channel option will require more mitigation than the dry stream option.

4. CREEK CORRIDOR PRELIMINARY DESIGN REPORT

The next stage of design is the preliminary design of the creek corridor hydraulic elements and overall grading and channel design. The Preliminary Design Report would result in approximately 60 percent complete detail Preliminary Design Plans. Following this task, final design calculations and construction documents can be prepared.

The Preliminary Design Report would include the following:

- » Evaluation of environmental impacts and mitigation requirements for conceptual designs
- » Opportunities for onsite mitigation of impacts
- » Reevaluation of costs for concept designs in light of environmental impact and mitigation requirements
- » Discussions with City to select a final Concept Design
- » Hydraulic modeling to evaluate conveyance capacity and erosion protection requirements
- » Selection of materials and design features:
 - Channel cross section
 - Grade control or drop structures
 - Transitions between open channel and culverts
 - Culverts and pipes to convey flow under roads
 - Buried pipes or conveyances as dictated by selected concept
 - Bank and bed materials
 - Typical construction details

5. WATER FEATURE/MAN-MADE STREAM PRELIMINARY DESIGN

The conceptual design preferred by the City includes a recirculating water feature in the bottom of the creek channel. This step is to undertake preliminary design for this feature and would result in 60 percent completion of construction plans. Water feature plans shall be separate from channel construction plans to facilitate construction of the water feature as a second phase of project construction. This task shall include:

- » Location and extent of water feature(s)
- » Sketches or illustrations of character and typical appearance of water feature(s)
- » Locations of pools, waterfalls, riffles, and other important aspects of water feature
- » Location, size, and design requirements for pumps and other equipment
- » Power supply locations and requirements
- » Water quality features
- » Pump sizing and flow requirements
- » Shoreline types and appearance
- » Typical details for shorelines, waterfalls, and other critical features

6. PRELIMINARY LANDSCAPE DESIGN

In conjunction with the Preliminary Design Report, a preliminary landscape design should also be undertaken for the creek corridor and public amenities. Community involvement is encouraged during this process to promote stewardship and utilize local knowledge and preference. The City of Calimesa has an established Garden Club and Community Garden Group which may lend expertise in local horticulture while also including the community at large in the landscaping of the creek area. Following completion of the Preliminary Design Report, final design and construction documents can be prepared. The Preliminary Landscape Design shall be coordinated with channel construction plans and shall include:

- » Paths and pedestrian access areas
- » Benches, lighting, and other hardscape elements
- » Plant palette and preliminary planting plans
- » Sketches or illustrations of the character and appearance of the design

7. FUNDING OPTIONS

The improvements to Calimesa Creek will improve public safety, remove flooding hazards to properties, improve water quality and native habitat, and add a significant public amenity to the downtown area. Property values are expected to increase for properties that are adjacent to and near the improved Calimesa Creek. To fund the next steps described above, there are several local funding tools that should be considered, as well as grant opportunities at both the state and federal level.

Some local funding tools are based on the idea of “value capture,” where the public agency captures some portion of the increased property values resulting from the provision of new infrastructure. With the demise of redevelopment, funding has become limited without the use of tax increment financing (TIF) to fund new projects in California. An alternative would be an infrastructure finance district (IFD), which diverts new local property tax revenues (the increment) to either pay for the construction of the infrastructure (the creek improvements) or issues bonds to finance the improvements. At this time, IFDs cannot be used in areas that were formerly redevelopment areas, although there is pending legislation to eliminate this requirement. Currently, the formation of an

IFD would require two-thirds vote of the registered voters in the district as well as the affected taxing entities. However, this requirement is also being reexamined at the state level.

Assessment districts are another option to consider. A landscape and lighting maintenance district (LLMD) can be formed to fund the construction of certain public improvements and the operation and maintenance of public improvements. Formation of the district requires a majority vote of the property owners within the district. The improvement planned for Calimesa Creek may qualify for a geologic hazard abatement districts (GHAD). This is a special type of assessment district that was created to finance the prevention, mitigation, abatement, or control of a geologic hazard. A geologic hazard is defined as an actual or threatened landslide, land subsidence, soil erosion, or any other natural or unnatural movement of land or earth. If approved by a majority of property owners, the district is formed and assessments will be levied to share the costs of hazard management across all affected properties. This type of district is also eligible for other federal or public funds.

In addition to funding mechanisms such as assessment districts, Calimesa should take

advantage of a range of grant funding options that could help bridge the funding gap for Calimesa Creek. A sample of current funding sources is described below. These will change over the years in response to shifting priorities from the granting agencies.

California Commerce and Trade Agency

The Rural Economic Development Infrastructure Program (REDIP) can provide financing for the construction, improvement, or expansion of public infrastructure with the intent of creating jobs in communities with an unemployment rate either equal to or above the state's average unemployment rate. The funds can be used for publicly owned infrastructure required for the construction or operation of a private development. Eligible infrastructure projects include the construction, rehabilitation, alteration, expansion, or improvement of, including but not limited to, sewer and water facilities, storm drains; utility connections, roads, street, highways, and related improvements (e.g., curbs, gutters, sidewalks), and other public facilities or other infrastructure improvements necessary for industrial or commercial activity.

California Infrastructure and Economic Development Bank

The California Infrastructure and Economic Development Bank offers low-cost financing to local governments and agencies for a variety of infrastructure projects through the Infrastructure State Revolving Fund (ISRF). These projects could include streets, storm drains, water and sewer, and parks. Applications are continuously accepted throughout the year.

Proposition 84

In 2006, California voters approved Proposition 84. In addition to a variety of water resource, park, and conservation measures, Proposition 84 provides \$580 million for sustainable communities and climate change reduction projects in five categories: urban forestry, urban greening, park development and community revitalization, sustainable communities planning grants, and modeling incentives.

The urban greening grant is suited to the Calimesa Creek project. Proposals will be accepted in 2013 for the third round of anticipated funding. The urban greening program can fund urban greening plans and projects that reduce energy consumption, conserve water, improve air and

water quality, and provide other community benefits. In particular, urban greening grants could be used for projects to improve the public realm in areas planned for intensified development.

US Economic Development Administration

The Economic Development Administration (EDA) funds a variety of grant and loan programs. The primary program applicable to the Calimesa Creek project is the Public Works and Development Facilities Program. This program can fund water and sewer infrastructure projects. EDA provides grants to help distressed communities attract new industry, encourage business expansion, diversify local economies, and generate long-term, private-sector jobs. Thus, to be eligible, communities need to relate the proposed project to commercial and industrial development and employment generation, and they need to qualify based on distress measured by unemployment. Nevertheless, for qualifying communities, this program is perhaps the single largest source of funding for infrastructure improvements.

US Department of Agriculture

USDA's Rural Housing Service (RHS) can make and guarantee loans to develop essential community

facilities in rural areas and municipalities of up to 50,000 in population. Loan funds may be used to construct, enlarge, or improve community facilities for health care, public safety, and public services. This can include costs to acquire land needed for a facility, pay necessary professional fees, and purchase equipment required for its operation. Examples of essential community facilities include: health care; telecommunications; public safety; and public services.

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