



# Trails Strategy & Action Plan

*A walkable community in Northern California where people of all ages and abilities enjoy healthy and interconnected lives*

2017



Approved by the Rocklin City Council  
February 14, 2017

RESOLUTION NO. 2017-23

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ROCKLIN APPROVING AND ADOPTING  
THE CITY OF ROCKLIN TRAILS STRATEGY AND ACTION PLAN

WHEREAS, the Parks and Trails Master Plan recommends developing a Trails Strategy and Action Plan for the City of Rocklin; and

WHEREAS, the planning and development of a comprehensive trail system is recognized as a high priority of the citizens of Rocklin; and

WHEREAS, the City of Rocklin desires to adopt a comprehensive plan to develop a trail system serving the recreational, health and fitness and transportation needs of our community; and

WHEREAS, adoption of the plan demonstrates the City's commitment to fulfilling the goals and objectives outlined in the City's Strategic Plan; and

WHEREAS, adoption of this resolution validates the plan and provides direction to implement and carry out the policies and recommendations under the plan; and

WHEREAS, on October 12, 2016, the Parks, Recreation and Arts Commission recommended that the City Council adopt the Trails Strategy and Action Plan.

Section 1. The Council of the City of Rocklin hereby approves AND adopts the City of Rocklin Trails Strategy and Action Plan attached hereto as Exhibit A.

PASSED AND ADOPTED this 14<sup>th</sup> day of February, 2017, by the following vote:

AYES:	Councilmembers:	Broadway, Gayaldo, Janda, Patterson, Yuill
NOES:	Councilmembers:	None
ABSENT:	Councilmembers:	None
ABSTAIN:	Councilmembers:	None



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Scott Yuill, Mayor

ATTEST:



Barbara Ivanusich, City Clerk

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# Overview



“In every walk with nature one receives far more than he seeks”  
– *John Muir*

# Overview

## Goal

To develop a Network of diverse, quality trail experiences that provide both recreational and alternative transportation opportunities to retail, job centers, and events in the City of Rocklin.

This Trail Network will contribute to the well-being of our region and communities: be well-used by residents and visitors alike, increase physical activity that is enjoyable and rewarding, stimulate cultural and environmental awareness of this wonderful region, and support cultural, food, and event tourism.

## Purpose

The *Rocklin Trails Strategy and Action Plan* responds to the growing trend of community participation in unstructured recreation and recognizes the significant health and social benefits to be achieved through regular physical activity. In a context of significant population growth and visitation within the City, well-planned recreational trails can protect natural areas from degradation through unmanaged access.

In addition to recreational benefits, the trails need to provide alternative transportation options to retail, job center, and event locations.

The Strategy, then, provides a framework for establishing identified individual trails that will steadily build the Network.

The Strategy and Action Plan emanates from the 2017 Rocklin Parks & Trails Master Plan and also responds to the overwhelming requests for trails in the 2015 Parks Needs Assessment. The Trails Strategy and Action Plan is a planning document that paints a high level picture for the installation and connection of the trails within the City. The purpose of the plan is to position the City for grant opportunities and to allow the City to work with private developers on potential trails that fall within the development projects. This document is a living document and staff will be working with the Commission and Council annually to include revisions to proposed trails and the addition of new trails.

## The Network

The Network comprises a series of local transportation trails, incorporates major trails, and creates loops and local trails wherever possible. The Network will include utilizing existing utility access roads & undeveloped land for trails as feasible per agreements and other regulatory agency guidelines.

The Trail system is also based on other components such as:

- Function
  - o leisure, fitness, tourism, recreation, and adventure
- Type
  - o walk, cycle, hike, and shared use
- Setting
  - o cultural, creek corridor, and undeveloped natural spaces
- Duration and user capability

# Overview

The Network is defined at a City-wide and local level and supported by actions to establish the Network.

## **Who will use this Plan - and how?**

This Plan will be used by staff, elected officials, developers and partnership agencies to direct the implementation of the Network.

Actions will be prioritized based on ranking and will be appropriately inserted into the Projects and Capital Investment Five Year Plan or as part of future development projects where applicable.

The plan's goal and purpose provides direction for the development of the Network and for considering any proposed or unforeseen opportunities for trail development in the future, particularly in undeveloped areas.

The Plan will form the basis for initiating partnerships with:

- The private sector (e.g., businesses and developers)
- Community and interest groups (e.g., 'Friends of' groups) and peak user groups such as Walking, Bicycle, and Hiking enthusiasts to include our senior population.
- Regulatory agencies for undeveloped land trails.
- Utility organizations to utilize access roads & easements.

The Plan will also provide information to the community on existing and planned trails and a broad indication of scheduling for their development.

# Methodology

## **Literature**

Review of existing General Plan, City reports, strategies and plans.

## **Current initiatives**

Review of trail projects designed or conditioned in both approved development projects & Capital Investment Plan

## **Inventory**

Inventory and GIS mapping of known recreational trails and walks and heritage walks

## **Field visits**

Field visits to selected trails and trail opportunities

## **Maps**

Development of City-wide Project Specific Maps

## **Structure and Principles**

Determination of Network components, Trail Classifications, Principles, Roles, and Signage

## **Preliminary Engineering**

Preliminary review of California State Trail design standards, and establishment of conceptual designs & engineering estimates.

## **Prioritizing/Budgeting**

Analysis and determination of the Network, Ranking of the Projects Funding for Five year CIP inclusion

## **Action Plan**

Formulation of Action Plan to achieve the Network

# Methodology

## Project Team

A project team was formed to provide expertise and advice and inform the development of the Plan. It consisted of:

- Rick Forstall, Director of Public Services
- David Mohlenbrok, Environmental Services Operations Manager
- Matt McClure, Public Services Manager
- Corinne Heisler, Environmental Services Specialist

Input from Council members and commissioners was also invited.

## Preliminary Consultation

Preliminary consultation was undertaken with the community through the Parks and Trails Master Plan process that included:

- Various focus group meetings
- Phone surveys
- Web based surveys

To include discussions with:

- Walking Enthusiasts
- Cycling Enthusiasts
- Hiking Enthusiasts

## On-ground Assessment

An initial assessment was conducted to determine whether the proposed trails in the Action Plan were feasible on the ground.

A total of nine trails were considered including:

- Sunset Park Trail
- Antelope Creek Trail
- Pheasant Run Trail
- Pomegranate Point Trail
- Quarry Loop Trail
- Clover Greens Trail
- Boulder Ridge Trail
- Granite Meadows Trail
- Secret Ravine Trail

The assessment identified existing trail segments, broke the proposed trails into sections, and provided a summary of the likely critical issues to be considered as part of future trail construction.



# Framework

## Network Components

The Trails Network establishes a range of trails offering a variety of experiences based on the following elements:

- Primary function
- Type
- Significance
- Setting
- Length and duration
- User capability

### Primary function

The primary function of recreational trails may include:

- Leisure and relaxation
- Regular and advanced fitness
- Recreation
- Adventure
- Tourism
- Alternative transportation to shopping and businesses

### Type

The type of recreational trail refers to the way in which it is used including:

- Walking/Running
- Cycling
- Hiking
- Shared use

### Significance

The Network incorporates recreational trails that are of regional or local significance.

# Framework

## **Regional trails:**

Regional trails have excellent natural and cultural features and can attract users from outside the region (e.g., Sonora Trail/ Whitney Oaks Trails).

### **Characteristics include:**

- Links to other tourism and cultural destinations within the region
- May extend beyond the City/region (connect to Roseville, Lincoln, Loomis, or Placer County Trails)
- Is regularly used for regional and local events
- Provides alternative transportation between different areas of the City (e.g., residential, shopping, and business)

## **Local trails:**

Local trails have distinctive natural and/or cultural features and offer a quality experience primarily to the local community (e.g., Whitney Ranch Trails)

### **Characteristics include:**

- Will be contained within an area of the City
- Is regularly used as a community recreational facility by a high number of users
- Will provide alternative transportation within individual areas of the City (e.g., neighborhoods, Quarry District)

### **Local Trails may also:**

- Link major recreation nodes, higher level trails, or minor tourism and destinations of interest
- Are identified as important trails for specific user groups but do not necessarily form linkages (hiking or mountain bike trails within specified locations)

Local heritage walks and recreational walks have not been identified as a formal part of the Network. However, they have been included as attractions linked to the Network and will be considered as part of the promotional strategy.

### **Setting:**

The setting through which trails pass may include:

- Undeveloped Natural Spaces
- Private Public Partnership Areas
- Creek Corridors
- Cultural Districts
- Oak Woodlands
- Shopping Centers
- Office Parks

# Framework

## Length and duration:

The length of and estimated time in which it would take to complete individual trails was considered and classified as either:

- 1/2 hour
- 1-2 hours
- 2-3 hours – (Loop trails or Linking trails)

## User capability:

User capability is expressed through the Classification of the trail as:

- Easy
- Moderate
- Challenging

(Refer to Trail Classifications below)

## Trail Classifications

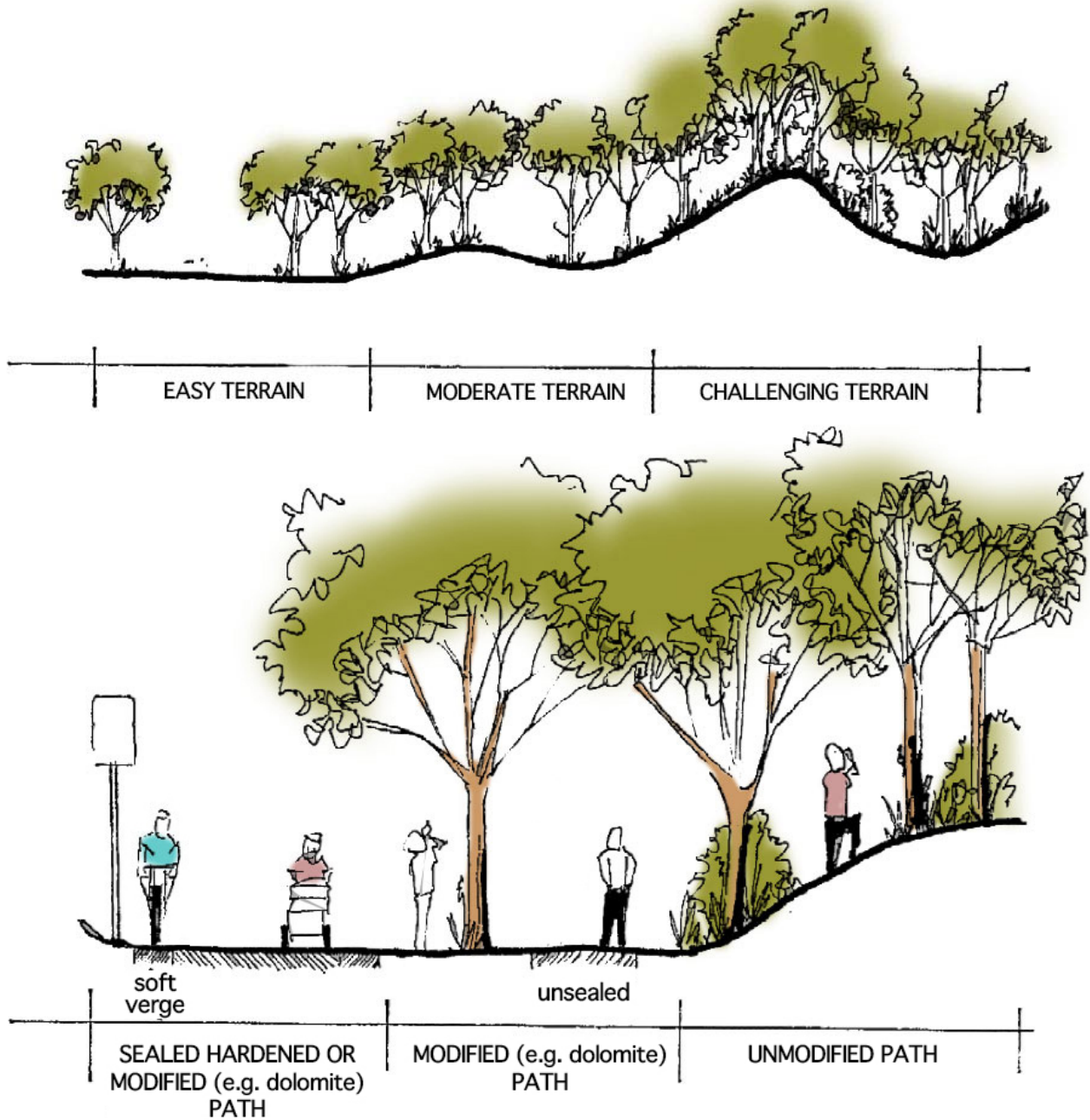
Trail classifications have been developed for walking, running, hiking, bike, and shared use trails. Detailed criteria for each classification are provided and summarized in the following table.

Figure 2 illustrates the features of each trail classification in terms of terrain and surface.

	Easy	Moderate	Challenging
Level of use	High	Medium	Low
Fitness/skills	Basic, including disability	Moderate	Advanced
Slope	Gentle	Moderate	Sections may be steep
Surface	Modified or hardened.	Variable. May be modified; route is distinct.	Variable. Limited or no modification; route may be indistinct.
Locality	Easily accessible	Accessible	Less accessible
Signage	Moderate to high level of interpretation and management signage.	Minimal directional and management signage. Some interpretation.	Limited or no signage.
Management	High	Moderate	Low
Usage	Shared use	Shared use	Single use

# Framework

Figure 2: Trail Classifications



# Framework

## Principles

The following principles apply to the planning, construction and management of recreational trails within the City.

### Network

- Individual trails are to contribute to the City's Network of regional and local trails of varying functions, types, durations and settings and cater for a range of user capabilities.
- Priority for the development of trails should be in areas where existing trails do not meet the level of community needs, gaps between trails exist, or to create loop trails.
- Additions to the Network in areas where infill or greenfield development occurs, or in response to one off proposals or opportunities, are to accord with the Network components and these principles.

### Type

- Trails with an 'Easy' or 'Moderate' classification are to be shared use (i.e., for walkers, runners, hikers and cyclists), except where particular environmental or other special management conditions exist.
- Trails that are classified as 'Challenging' are to be single use.
- Priorities should reflect the level of community benefit to be achieved from individual trails (i.e., shared use trails will generally offer greater benefit for more people than single use trails).

### Community characteristics and need

- The development of new trails is to be based on a clear understanding of user needs and characteristics.

### Setting

- Trail and infrastructure design should reflect the character, or desired character, of the local area.
- Trails should be located along natural, undeveloped open space areas (e.g., creek corridors) or unimproved road reserves and include natural features and points of interest.
- Where opportunities for off-road alternatives require investigation or are not available, on-road links (e.g., bicycle lanes or use of the road shoulder along major roads) are to be considered as interim or alternative options.
- Easy trails are to comprise a sealed, hardened surface (e.g., asphalt) or a modified surface (e.g., dolomite). Medium trails are to provide a modified surface. Hard trails should generally remain unmodified.
- Wherever possible or sensible, trails are to be circular in design (i.e., loop trails) or link to other trails to form a component of a loop (i.e., linear connections).
- Trails are to link businesses, retail centers, facilities, and attractions, wherever possible.
- The design of new trails and the scale of trail signage and facilities should consider relevant standards.
- Trails will be located on flat land where cut and fill is minimized. Boardwalks and other structures should not be created except as an absolute last resort, where no other solution is possible.

# Framework

## **Partnerships**

- Partnerships for the development of trails will be sought with State and Federal government and the private sector, wherever possible or appropriate.
- Community partnerships for maintaining trails will be sought through options such as the establishment of 'Friends' groups and 'community build' projects.

## **Risk management**

- Any risks associated with the development of new trails or the management of existing trails, particularly risks to public safety or the natural environment should be identified and mitigated in a manner consistent with its classification.

## **Environment**

- While it is recognized that trail construction will have some environmental impact, this is to be minimized and outweighed by any environmental benefit to be achieved (e.g., revegetation, minimizing human impact on environmental areas through the provision of formal routes).

## **Tribal heritage**

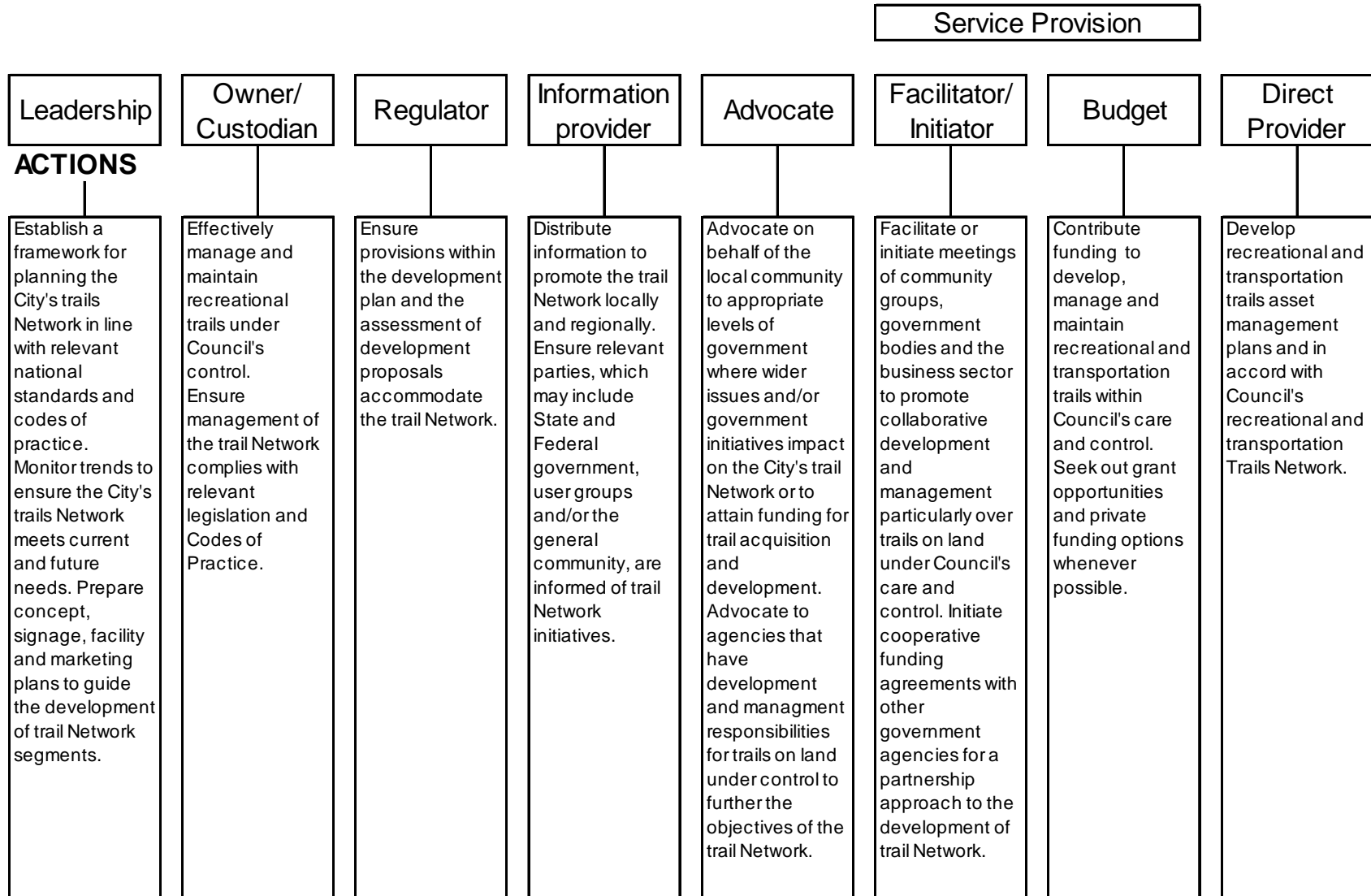
- Trails that have identified Native American heritage values will involve tribal consultation in their planning, design and interpretation.

**Figure 3: Rocklin Role Statement for Recreational Trails**

**GOAL**

To develop a network of diverse, quality recreational trail experiences in the City of Rocklin.

**ROLE**



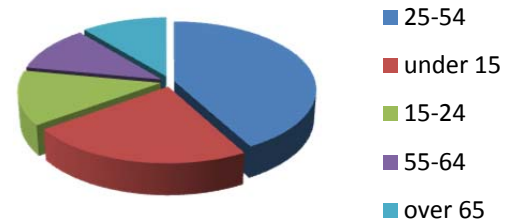
# Context

## DEMOGRAPHIC PROFILE

The 2015 age structure for the City of Rocklin reflects a relatively young population as shown in the following breakdown:

- 42% aged between 25 and 54 years
- 23% aged under 15 years
- 13% aged between 15 and 24 years
- 11% aged between 55 and 64 years
- 11% aged 65 years or over

## Demographic Profile



Detailed demographic information is provided in the 2017 Parks & Trails Master Plan.

## Trail User Information

Trails are utilized by a range of user groups for a variety of activities.

A study conducted by the State Office of Recreation shows that males and females use recreational trails in equal numbers. However, in broad terms:

- Males tend to use the trail for exercise or fitness purposes and are more likely to travel to get to a trail
- Females tend to use the trail for recreation or social benefits and are more likely to use trails within walking distance from their homes

In terms of the different types of user groups:

- Walkers are typically older females who use the trails for short periods with a focus on the social benefit of trail usage
- People who use the trail for exercise purposes are more likely to use the trail on their own and for shorter periods of time
- Cyclists are generally younger males who use the trails for longer periods, on their own and as a transport route
- Recreational users are generally tourists from outside the region who use the trail for longer periods with a focus on the social benefits or as a link to other facilities



# Proposed Trails and Prioritization



## Rocklin

# Proposed Trails and Prioritization

## PROPOSED TRAILS AND PRIORITIZATION

Expansion of the trail network is happening throughout the City and should follow the goals of this plan. Proposed trails detailed here represent trails from the vision, conceptual, feasibility, and final design stages. Proposed trails are conceptual and exact locations will be determined at the time of installation. The City does not have access to private land and does not have the right to construct trails on private land therefore trails that are proposed to run through private property will require greater planning and coordination. Each is described in this chapter and ranked by five factors: Project Status, Demand, Connectivity, Feasibility, and Cost.

### Expanding the Network

As discussed in Chapter 1, trail expansion in Rocklin is a highly supported project based on the 2015 needs assessment. Due to limited design, construction, and City operations and maintenance funding, the expansion of the trail work should adhere to City priorities and the goals of this plan: connectivity, safety, and open space. Building on the existing high-use trails, filling gaps in the network, and targeting areas with greatest need for access to open space, commerce, and business centers are key objectives for trail network expansion.

### Inventory

The proposed trails detailed on the following pages are numbered based on their priority ranking.

The inventory consists of a one-page summary for each proposed trail that includes a location map, photos and graphics, a brief description of the project and status, and a statement of how the trail scored on each of the five prioritization factors. Each trail is classified by one or more of the following types: trail, on- road, or side path. The agency or organization that proposed the trail or that is sponsoring development is listed under “entity.” The inventory is a snapshot in time and is designed to be updated annually in the inventory set; the order of proposed trails under each trunk trail or trail type is from high to low priority based on the results of the criteria. The proposed trails range from the vision stage to trails with final design plans and secured property ownership along the length of the alignment. The project status is that which was last completed; for example, if a preliminary design study is under way, the status is conceptual until that study is complete. Under project status, the most recent stage of completed development is listed; if a project is in the preliminary design stage but only planning and feasibility are completed to date, the project status is listed as planning.

### Prioritization Factors & Criteria

#### Prior Commitments

- Dedicated Planning Document

#### Demand

- Close to Schools
- Close to Parks
- Close to Public Transportation
- Adjacent to Existing Trail

#### Connectivity

- Completes a Gap in the Trail Network
- Completes a Gap in and will support the Bicycle Network
- Feeder to Existing Trail
- Connects Commerce and Business Centers

#### Feasibility

- Barriers
- Land Ownership/Regulation
- Dedicated Group for Development and Stewardship
- Investment Needed to Make Connection

# Proposed Trails and Prioritization

## PRIORITIZATION PROCESS AND RESULTS

Prioritization of proposed trail projects is a major goal of this effort. This plan analyzed City trail priorities through four factors: project status, demand, connectivity, feasibility, and cost. Under the five factors are 13 total criteria, each with a numerical value to reflect how the proposed trail satisfies the criteria. The sum of the scores under each factor was weighted to 1/5 of the total project score. Each of the proposed trail projects was run through the 16 criteria and given a cumulative ranked score. Several of the criteria were over weighted to reflect a higher importance. Where possible, the criteria analysis was geographically based. Examples of geographically based criteria include: completes a gap in the bicycle network, fills a gap in the walkable access to undeveloped natural spaces or commerce and business centers.

The projects were ranked by highest to lowest score and divided into three priority groups: high, medium, and low. The priority ranking is indicated on the inventory sheet for each project.

**A High Priority Project (1)** is in the highest third of the total criteria scores. Rocklin staff will move the project towards design and construction. The project team can use the high priority status in this plan as a tool for garnering public and private involvement and support from funding sources.

**A Medium Priority Project (2)** is in the middle third of the total criteria scores. Rocklin staff may move the project towards final design, depending on status of higher priority projects. Those projects that are a medium priority will be scheduled out over the 5-10 year CIP period. The project team can use the medium priority status in this plan as a tool for outreach and support from funding sources.

**A Low Priority Project (3)** is in the lowest third of the total criteria scores. Those projects that are a low priority could receive City advice on altering the project scope, location, or associated amenities to increase the rank of the project and therefore increase City support of the project. Rocklin staff may to move the project towards preliminary design, as applicable.

# Proposed Trails and Prioritization

Figure 5: Projects & Actions:

Trail	Priority	Length (Miles)	Length (F)	Width (Ft.)	Surface	Right of Way
Sunset Park Trail Phase A	1	0.392	2,075	10	Aggregate	City O.S.
Sunset Park Trail Phase B	2	0.920	4,860	10	Aggregate	City O.S.
Sunset Park Trail Phase C	2	0.359	1,900	10	Aggregate	City O.S.
Antelope Creek Trail	1	0.278	1,470	10	Aggregate	City O.S.
Pheasant Run Trail	1	0.461	2,435	10	Aggregate	City O.S.
Pomegranate Point Trail	1	0.378	1,995	10	Aggregate	City O.S.
Quarry Loop Trail Section A	1	0.258	1,360	10	Aggregate	City O.S.
Quarry Loop Trail Section B	1	0.345	1,823	10	Aggregate	City O.S.
Quarry Loop Trail Section C	1	0.393	2,075	10	Aggregate	City O.S.
Quarry Loop Trail Section D	2	0.289	1,528	10	Aggregate	Public-Private Partnership
Quarry Loop Trail Section E	2	0.469	2,480	10	Aggregate	Public-Private Partnership
Clover Greens Trail Section A	2	1.150	6,075	10	Aggregate	City O.S.
Clover Greens Trail Section B	2	2.027	10,705	10	Aggregate	Public-Private Partnership
Clover Greens Trail Section C	2	0.554	2,925	10	Aggregate	Public-Private Partnership

\$8 Per Sq. Ft. for asphalt to match SPMUD specifications on utility easements

\$4. Per Sq. Ft. - cost estimate for asphalt surface (for Trails classified as 'Easy')

\$3. Per Sq. Ft. - cost estimate for DG surface (for Trails classified as 'Easy' or Moderate')

Challenging trails will generally remain unmodified.

Land acquisition not included in construction costs and will be determined at time of development.

Prices are an estimate and are subject to change.

# Proposed Trails and Prioritization

Trail	Priority	Length (Miles)	Length (F)	Width (Ft.)	Surface	Right of Way
Boulder Ridge Trail Section A	3	1.373	7,249	10	Aggregate	Public-Private Partnership
Boulder Ridge Trail Section B	3	1.689	8,922	10	Aggregate	Public-Private Partnership
Granite Meadows Trail Section A	2	0.481	2,540	10	Aggregate	Public-Private Partnership
Granite Meadows Trail Section B	2	0.579	3,055	10	Aggregate	Public-Private Partnership
Granite Meadows Trail Section C	1	0.739	3,905	10	Aggregate	Public-Private Partnership
Granite Meadows Trail Section D	2	0.329	1,740	10	Aggregate	Public-Private Partnership
Secret Ravine Trail Section A	3	1.235	6,526	10	Aggregate	Public-Private Partnership
Secret Ravine Trail Section B	3	0.678	3,580	10	Aggregate	Public-Private Partnership

\$8 Per Sq. Ft. for asphalt to match SPMUD specifications on utility easements

\$4. Per Sq. Ft. - cost estimate for asphalt surface (for Trails classified as 'Easy')

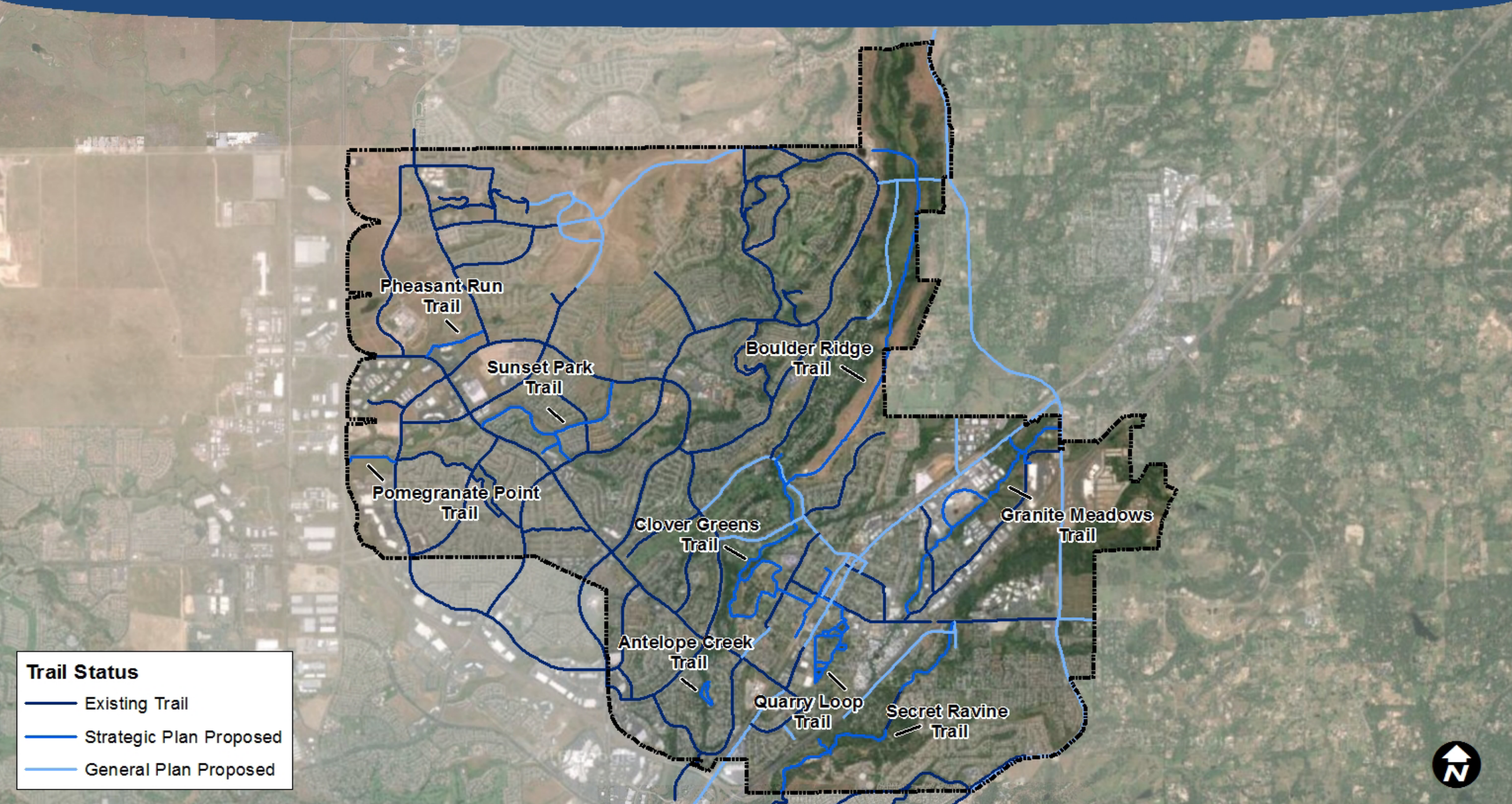
\$3. Per Sq. Ft. - cost estimate for DG surface (for Trails classified as 'Easy' or Moderate')

Challenging trails will generally remain unmodified.

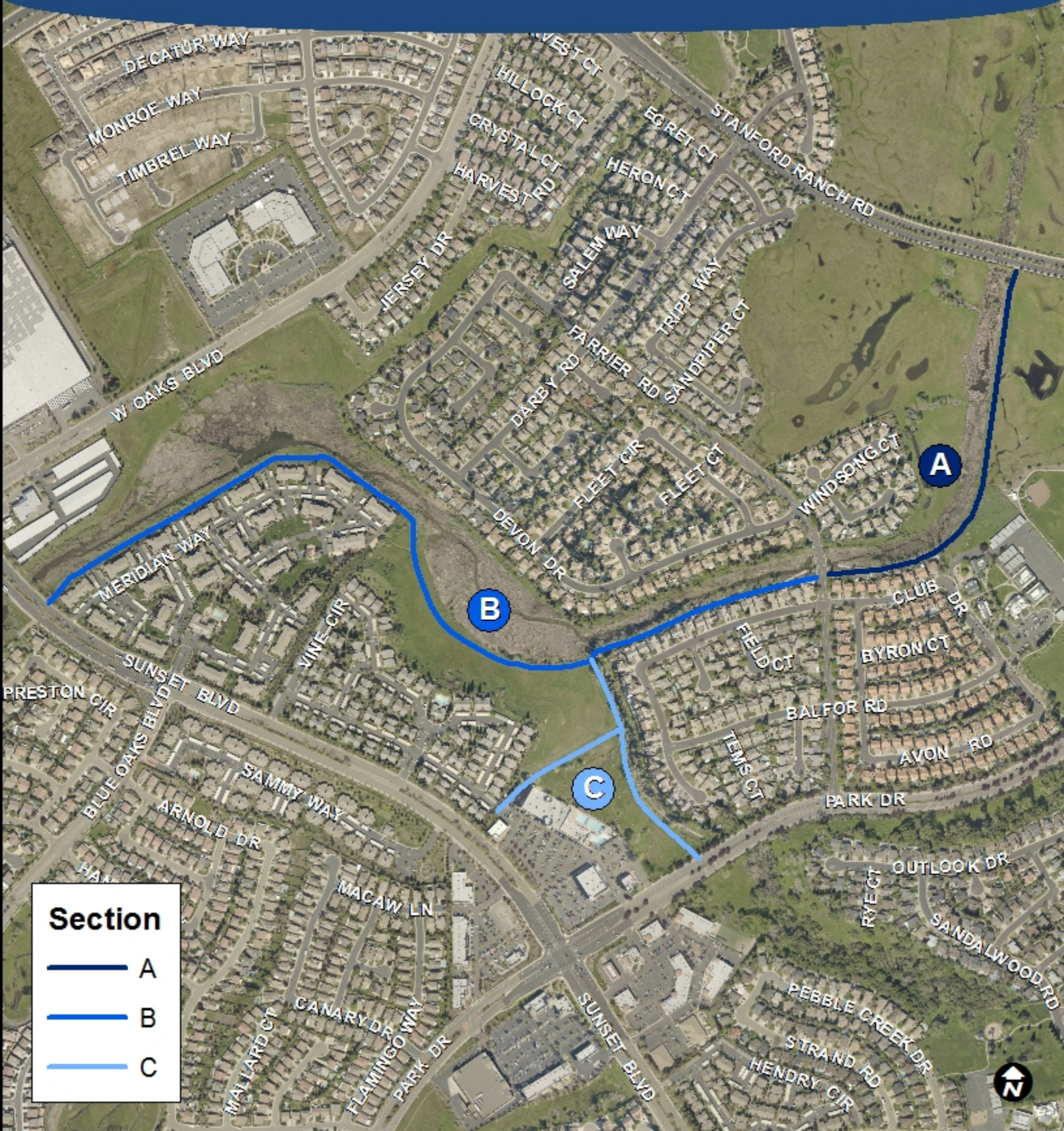
Land acquisition not included in construction costs and will be determined at time of development.

Prices are an estimate and are subject to change.

# Proposed Trails Overview



# Sunset Park Trail Project - 1



# Trail Projects -1 – Sections A – C

## -Ranking-

### Priority 1: Sunset Park Trail – Sections A - C (Stanford Ranch Rd., Park Dr. and Sunset Blvd. Connector Trail)

#### Project Status and Description

The Sunset Park Trail sections A-C are located along the Stanford Ranch Open Space corridor, and connect Park Dr., Stanford Ranch Rd., and Sunset Blvd. The Stanford Ranch watershed is an area that hosts various types of wildlife, a riparian habitat zone and a seasonal creek. The proposed trail would parallel the existing creek and utilize an existing 12'-20' Public Utility Easement. This trail section is part of a local trail plan that would connect Stanford Ranch Rd. to Sunset Blvd. and Park Drive and requires 3 phases. The Main Trail scored high in project status because of its existing ranking as a Public Easement, its ability to utilize an existing access road, and its simplistic design requirements.



#### Demand

The Project scored high in demand because of its close proximity to Twin Oaks Park, Twin Oaks elementary school, as well as its ability to provide access to undeveloped natural spaces and its potential to become a high use local trail.

Priority	Section A: High Sections B & C: Medium
Status	Feasibility Study
Type	Easy, Local, Multiuse
Length	1.673 Miles (8,835 feet)
Maintenance	Minimal Maintenance

#### Connectivity

The project scored high in connectivity because it will connect 3 new trail sections and provide a local trail that will connect 3 main arterial roadways, Sunset Blvd., Park Dr., and Stanford Ranch Rd. It will allow the community to connect to major retail establishments along all 3 roadways.

#### Feasibility

The project scored high in feasibility as the City currently owns some of the land and has an access easement which will allow the trail to be constructed through undeveloped natural land with minimal regulatory oversight.

#### Cost

The project ranked in the low range in the cost category because of existing property ownership and low construction and maintenance costs.

#### Priority

Section A is ranked in the high priority category. Sections B and C are ranked in the medium priority category.




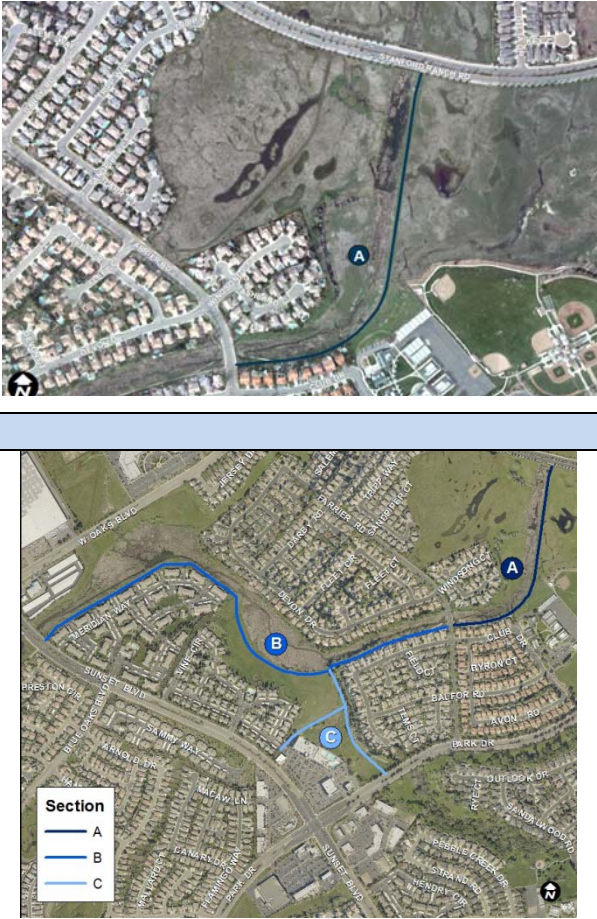


# Sunset Park Trail - Project 1 - Section A



# Trail Projects – 1 – Section A



## -Scope-

Project 1: Sunset Park Trail Section A	
<b>Description:</b>	
<p>A shared use path would run along the Southwest side of the creek and use the existing utility easement. This trail would be part of the larger Sunset Park Trail system which is presented in 3 phases and is anticipated to be constructed within 2-3 years. Phase A would begin at Stanford Ranch Rd. utility easement and travel West terminating at Farrier Rd. Future phases would begin at Farrier Rd. and be extended to Park Dr. and Sunset Blvd. The initial design of the trail would be constructed out of A/B and would include post and cable along the perimeter of the easement to restrict open space access. Future plans to asphalt the trail will be designed and submitted in grant application.</p>	 <p>Existing trail section off Stanford Ranch Rd.</p>
<b>Trail Type/Width</b>	
A/B shared use path / 8-12' (a design with asphalt can be overlaid and is pending grant application and funding 2017)	
<b>Habitat</b>	
Riparian zone adjacent to creek and open fields, small wildlife and birds are present, some live and blue Oaks.	
<b>Key Land Uses / Destinations</b>	
A planned section of the future Park Sunset Trail, serving local residents and would provide a traffic free alternative along existing land easements.	
<b>Issues</b>	
<ul style="list-style-type: none"> <li>• Potential flooding during heavy rain</li> <li>• Maintenance and trash removal</li> <li>• Proximity to small section of homes backyard</li> <li>• Potential SPMUD road section requirement to handle trucks</li> </ul>	
<b>Planning – Level Cost Estimate</b>	
\$75,000 - \$100,000 (This amount can be severely reduced if natural surfacing is used instead of AB with slight grading and installing post and cable with signs., \$20,000 - \$25,000)	
	



# Trail Projects – 1 – Section B

-Scope-


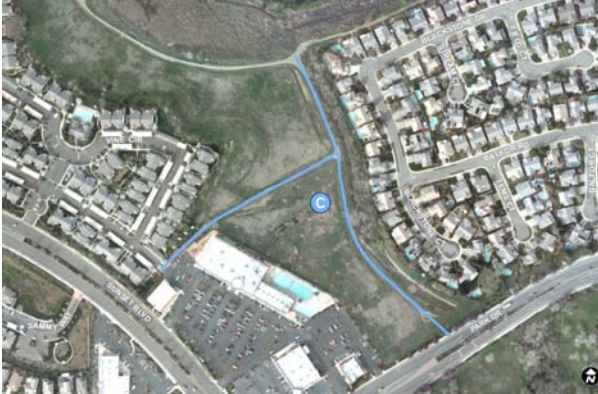
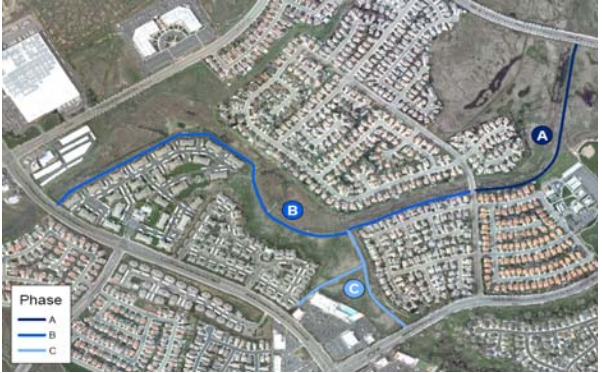
Project 1: Sunset Park Trail Section B	
<b>Description:</b>	
<p>A shared use path would run along the Southwest side of the creek and use the existing utility easement. This trail would be part of the larger Sunset Park Trail system which is presented in 3 phases and is anticipated to be constructed within 2-3 years. Section B would begin at Farrier Rd. utility easement and travel West winding its way through the open space terminating at Sunset Blvd. The initial design of the trail would be constructed out of A/B and would include post and cable along the perimeter of the easement to restrict open space access. Future plans to asphalt the trail will be designed and submitted in grant application. The AB path could be used as a base for the future asphalt project.</p>	
<b>Trail Type/Width</b>	
A/B shared use path / 8-12' (a design with asphalt can be overlaid and is pending grant application and funding 2017)	
<b>Habitat</b>	
Riparian zone adjacent to creek and open fields, small wildlife and birds are present, some live and blue Oaks.	
<b>Key Land Uses / Destinations</b>	
A planned section of the future Park Sunset Trail, serving local residents and would provide a traffic free alternative along existing land easements.	
<b>Issues</b>	
<ul style="list-style-type: none"> <li>• Potential flooding during heavy rain</li> <li>• Maintenance and trash removal</li> <li>• Proximity to small section of homes backyard</li> <li>• Potential SPMUD road section requirement to handle trucks</li> </ul>	
<b>Planning – Level Cost Estimate</b>	
<p>\$195,000 - \$225,000 (This amount can be severely reduced if natural surfacing is used instead of AB with slight grading and installing post and cable with signs., \$40,000 - \$55,000)            The AB can be installed later and included in grant app.</p>	
	

# Sunset Park Trail - Project 1 - Section C



# Trail Projects – 1 – Section C

-Scope-

Project 1: Sunset Park Trail Section C	
<b>Description:</b>	
<p>A shared use path would run along the West side of the drainage swale and use the existing drainage easement and split, one section going to Sunset Blvd. and the other section going to Park Dr. This trail would be part of the larger Sunset Park Trail system which is presented in 3 phases and is anticipated to be constructed within 2-3 years. Section C would begin at both Sunset and Park and connect with the main trail at section B. The initial design of the trail would be constructed out of A/B and would include post and cable along the perimeter of the easement to restrict open space access. Future plans to asphalt the trail will be designed and submitted in grant application. The AB path could be used as a base for the future asphalt project.</p>	
<b>Trail Type/Width</b>	
A/B shared use path / 8-12' (a design with asphalt can be overlaid and is pending grant application and funding 2017)	
<b>Habitat</b>	
Riparian zone adjacent to a drainage swale and open fields, small wildlife and birds are present, some live and blue Oaks.	
<b>Key Land Uses / Destinations</b>	
A planned section of the future Park Sunset Trail, serving local residents and would provide a traffic free alternative along existing land easements.	
	
<b>Issues</b>	
<ul style="list-style-type: none"> <li>• Maintenance and trash removal</li> <li>• Proximity to small section of homes backyard</li> <li>• Potential SPMUD road section requirement to handle trucks</li> <li>• Steep grade need to be cut at Park Dr. trail head</li> </ul>	
<b>Planning – Level Cost Estimate</b>	
<p>\$95,000 - \$115,000 (This amount can be severely reduced if natural surfacing is used instead of AB with medium grading and installing post and cable with signs., \$20,000 - \$35,000) The AB can be installed later and included in grant app.</p>	
	

# Antelope Creek Trail Project - 2



# Trail Projects – 2

## -Ranking-

### Priority 1: Antelope Creek Trail (Antelope Creek and Sunset East Park)

#### Project Status and Description

The Antelope Creek Trail is located along the Antelope Creek corridor, and creates a loop trail that connects Sunset East Park off of Willowynd Drive to Shannon Bay Drive and the Park Village apartments. The Antelope Creek watershed is an area that hosts various types of wildlife, a riparian habitat zone and a year round creek. The proposed trail would parallel the existing creek and utilize an existing 12' Public Utility Easement. A small portion of the trail will remain natural as it weaves in and out along the creek. The Trail scored high in project status because of City owned land, its existing ranking as a Public Utility Easement, its ability to utilize an existing access road, and its simplistic design requirements.



#### Demand

The Project scored high in demand because of its close proximity to Sunset East Park, Antelope Creek elementary school, as well as its ability to provide access to water sheds, and undeveloped natural spaces.

Priority	High
Status	Feasibility Study
Type	Easy, Local, Multiuse
Length	0.278 Miles (1,470 feet)
Maintenance	Minimal Maintenance

#### Connectivity

The project scored medium-high in connectivity because it will provide a loop trail, and connect Sunset East Park to multiple apartments.

#### Feasibility

The project scored high in feasibility as the City currently owns the land, there is no regulatory oversight and there is an access road easement which will assist with the trails through undeveloped natural land.



#### Cost

The project ranked in the low range in the cost category because of existing property ownership, minimal regulatory oversight, and will benefit from low construction and maintenance costs.






#### Priority

The project ranked in the high priority category.



# Trail Projects – 2

-Scope-

<b>Project 2: Antelope Creek Trail</b>		
<b>Description:</b>		
<p>A shared use path would run along the South side of Antelope creek and use a portion of the existing utility easement and another portion of Park land. This trail would connect Sunset East Park with Shannon Bay Drive and create a loop trail along the creek. A small section of trail would remain undeveloped as it winds along the creek corridor. The initial design of the trail could remain in its native state or would be constructed out of A/B. Future plans to asphalt the trail will be designed and submitted in a grant application in Summer of 2017. The existing trail is well graded and can be used as is.</p>		
<b>Trail Type/Width</b>		
<p>This trail can remain in its current state or A/B can be used. shared use path / 8-12' (a design with asphalt can be overlaid and is pending grant application and funding 2017)</p>		
<b>Habitat</b>		
<p>Riparian zone adjacent to creek and open fields, small wildlife and birds are present, some live and blue Oaks.</p>		
<b>Key Land Uses / Destinations</b>		
<p>A planned creek side corridor Trail, serving local residents while providing a traffic free alternative along existing land easements, and connecting parks, apartments and roadways</p>		
<b>Issues</b>		
<ul style="list-style-type: none"> <li>• Potential flooding during heavy rain</li> <li>• Maintenance and trash removal</li> <li>• Proximity to small section of homes backyard</li> <li>• Potential SPMUD road section requirement to handle trucks</li> </ul>		
<b>Planning – Level Cost Estimate</b>		
<p>\$55,000 - \$65,000 (This amount can be severely reduced if natural surfacing is used instead of AB with slight grading and signage, (\$15,000 - \$20,000)</p>		

# Pheasant Run Trail Project - 3



# Trail Projects – 3

-Ranking-

## Priority 1: Pheasant Run Trail (Wildcat to Sunset Boulevard)

### Project Status and Description

The Pheasant Run Trail is located within the Stanford Ranch Open Space and its associated watershed. Pheasant Run is a local trail that connects Wildcat Blvd. to Sunset Blvd. The Stanford Ranch watershed is an area that hosts various types of wildlife, a riparian habitat zone, wetlands, and a seasonal creek. The proposed trail would meander through the Open Space and utilize an existing 15' Public Utility Easement. The Trail scored high in project status because of City owned land, its existing ranking as a Public Utility Easement, its ability to utilize an existing access road, and its simplistic design requirements.



### Demand

The Project scored high in demand because of its close proximity to Margaret Azevedo Park, William Jessup University, Maria Montessori Academy as well as its ability to provide access to wetlands, riparian habitat, and undeveloped natural spaces.

Priority	High
Status	Feasibility Study
Type	Easy, Local, Multiuse
Length	0.461 Miles (2,435 feet)
Maintenance	Minimal Maintenance

### Connectivity

The project scored medium-high in connectivity because it will provide access to William Jessup University, connect 2 main arterial Roadways and provide access to Margaret Azevedo Park, and Maria Montessori Academy.

### Feasibility

The project scored high in feasibility as the City currently owns the land, there is minimal regulatory oversight and there is an access road easement which will assist with the trails through undeveloped natural land.



### Cost

The project ranked in the low range in the cost category because of existing property ownership, minimal regulatory oversight, and will benefit from low construction and maintenance costs.






### Priority

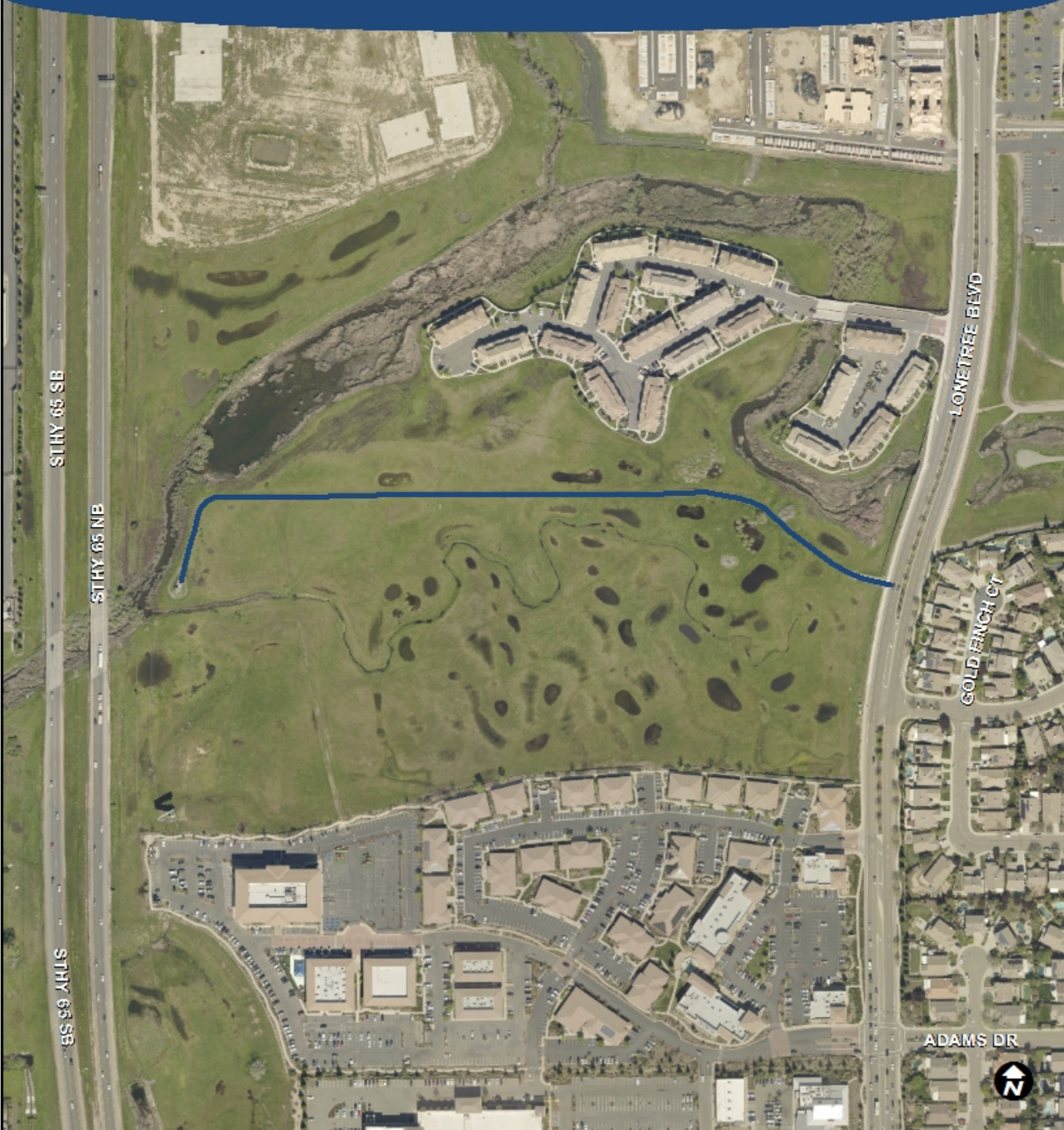
The project ranked in the high priority category.

# Trail Projects – 3

-Scope-

<h2>Project 3: Pheasant Run Trail</h2>	
<b>Description:</b>	
<p>A shared use path would run along the south side of Margaret Azevedo Park, along the Stanford Ranch Open Space and its associated Wetland. The trail would use an existing utility easement which would require minimal regulatory oversight. This trail would connect Sunset Blvd. with Wildcat Blvd. and provide access to a known pheasant habitat. The initial design of the trail could remain in its native state or would be constructed out of A/B. Future plans to asphalt the trail will be designed and submitted in a grant application in Summer of 2017. The access to the trail along Wildcat is constructed of asphalt. The existing trail is well graded and can be used with minimal grading, post and cable will need to be installed to contain the open space.</p>	
<b>Trail Type/Width</b>	
<p>This trail will require light grading and AB. It is a shared use path / 8-12' (a design with asphalt can be overlaid and is pending grant application and funding 2017)</p>	
<b>Habitat</b>	
<p>Riparian zone adjacent to wetlands and seasonal creek, adjacent to open fields, small wildlife and birds are present.</p>	
<b>Key Land Uses / Destinations</b>	
<p>An open space, wetland corridor trail, serving local residents while providing a traffic free alternative along existing land easements, and connecting parks, housing and roadways</p>	
<b>Issues</b>	
<ul style="list-style-type: none"> <li>• Potential flooding during heavy rain</li> <li>• Maintenance and trash removal</li> <li>• Potential SPMUD road section requirement to handle trucks</li> </ul>	
<b>Planning – Level Cost Estimate</b>	
<p>\$110,000 - \$126,000 (This amount can be severely reduced if natural surfacing is used instead of AB with slight grading and signage, (\$35,000 - \$45,000))</p>	
	

# Pomegranate Point Trail Project - 4



# Trail Projects – 4

## -Ranking-

### Priority 1: Pomegranate Point Trail (Lonetree Boulevard. to Hwy 65)

#### Project Status and Description

The Pomegranate Point Trail is located off of Lonetree Blvd. between West Oaks Blvd. and Sandhill Dr. Pomegranate Point is a local trail that starts at Lonetree Blvd. and runs outward towards Hwy. 65 and terminates at a wetland pond within the Stanford Ranch Open Space. The Stanford Ranch watershed is an area that hosts various types of wildlife, a riparian habitat zone, wetlands, and a seasonal creek. The proposed trail would meander through the Open Space and utilize an existing 15' Public Utility Easement. The Trail scored high in project status because of City owned land, its existing ranking as a Public Utility Easement, its ability to utilize an existing access road, and its simplistic design requirements.



#### Demand

The Project scored high in demand because of its close proximity to Kathy Lund Park, Rocklin Academy, and Ruhkala elementary School. The trail will provide access to wetlands, riparian habitat, and undeveloped natural spaces.

Priority	High
Status	Feasibility Study
Type	Easy, Local, Multiuse
Length	0.378 Miles (1,995 feet)
Maintenance	Minimal Maintenance

#### Connectivity

The project scored medium in connectivity because it will provide access to wetlands, riparian habitat, and open space.

#### Feasibility

The project scored high in feasibility as the City currently owns the land, there is minimal regulatory oversight and there is an access road easement which will assist with the trails through undeveloped natural land.

#### Cost

The project ranked in the low range in the cost category because of existing property ownership, minimal regulatory oversight, and will benefit from low construction and maintenance costs.




#### Priority

The project ranked in the high priority category.



# Trail Projects – 4

-Scope-

Project 4: Pomegranate Point Trail	
<b>Description:</b>	
<p>Pomegranate Point Trail is a shared use path that would run through the Stanford Ranch Open Space, and its associated wetlands. The trail would use an existing utility easement which would require minimal regulatory oversight. This trail would start at Lonetree Blvd., between West Oaks Blvd. and Sandhill Dr. and extend out through the open space. The initial design of the trail would be constructed of AB material. Future plans to asphalt the trail will be designed and submitted in a grant application in Summer of 2017. The existing trail is well graded and can be used with minimal grading, post and cable will need to be installed to contain the open space.</p>	
<b>Trail Type/Width</b>	
<p>This trail will require light grading and AB. It is a shared use path / 8-12' (a design with asphalt can be overlaid and is pending grant application and funding 2017)</p>	
<b>Habitat</b>	
<p>Riparian zone adjacent to wetlands and seasonal creek, adjacent to open fields, small wildlife and birds are present.</p>	
<b>Key Land Uses / Destinations</b>	
<p>An open space, wetland corridor trail, serving local residents while providing a traffic free alternative along existing land easements.</p>	
	
<b>Issues</b>	
<ul style="list-style-type: none"> <li>• Potential flooding during heavy rain</li> <li>• Maintenance and trash removal</li> <li>• Potential SPMUD road section requirement to handle trucks</li> </ul>	
<b>Planning – Level Cost Estimate</b>	
<p>\$110,000 - \$126,000 (This amount can be severely reduced if natural surfacing is used instead of AB with slight grading and signage, (\$35,000 - \$45,000)</p>	
	

# Quarry Loop Trail Project - 5





# Trail Projects – 5

## -Ranking-

### Priority 1: Quarry Loop Trail – Sections A – E (Quarry Park to Ruhkala Road)

#### Project Status and Description

The Quarry Loop Trail runs between Quarry Park and Ruhkala Road and connects the Quarry District with current commercial and current/future residential developments. Quarry Loop is a local trail that begins at Quarry Park and runs to Winding Lane and Lost Avenue before connecting with Ruhkala Road at the corner of Evelyn Road. The loop will meander past four historic quarries as it connects Quarry Park to the shopping center at the corner of Sunset Boulevard and Pacific Street. This trail is broken into 5 sections, the first of which was constructed with the installation of Quarry Park. The Quarry Loop will be constructed on undeveloped land currently owned by the City of Rocklin or through private developments as they are constructed.



#### Demand

The Project scored high in demand because of its close proximity to Quarry Park, the Quarry District, shopping centers, and the current completion of Section A. The trail will provide access to areas of historic value and undeveloped city and privately owned property.

Priority	Sections A – C: High Section D & E: Medium
Status	Feasibility Study
Type	Easy, Local, Multiuse
Length	1.755 Miles (9,266 feet)
Maintenance	Minimal Maintenance

#### Connectivity

The project scored high in connectivity because it will connect the heart of the Quarry District with current commercial and current/future residential developments.

#### Feasibility

The project scored medium-high in feasibility as the City currently owns some of the land, but will rely on future planned development to construct some of the sections. This undeveloped land is not a riparian habitat or protected open space so there will be minimal regulatory oversight required.

#### Cost

The project ranked in the low range in the cost category because of minimal regulatory oversight, and low construction and maintenance costs. The City does not currently own all of the land necessary for the trail therefore acquiring land will require dedication of land from the developer or purchasing the land increasing the cost of the project.

#### Priority

Sections A, B, and C ranked in the high priority category. Sections D and E ranked in the medium priority category.



# Quarry Loop Trail - Project 5 - Section A



**Existing Trail**

# Trail Projects – 5 – Section A

-Scope-

## Project 5: Quarry Loop Trail Section A – COMPLETE

### Description:

A shared use path runs along the edge of Quinn Quarry in Quarry Park. This trail is part of the larger Quarry Loop Trail system which is presented in 5 sections. Section A would connect to Section B two points on the southwestern side of Quinn Quarry. Section A was constructed with the installation of Quarry Park in Spring 2016 and is constructed out of A/B. Future plans to asphalt the trail will be designed and submitted in a grant application. The A/B path could be used as a base for the future asphalt project.



### Trail Type/Width

A/B shared use path / 8-12' (a design with asphalt can be overlaid and is pending grant application and funding)

### Habitat

Oak woodland, small wildlife and birds are present.

### Key Land Uses / Destinations

A planned trail, serving local residents and connecting parks, historic sites, houses, shopping centers and roadways.



### Issues

- Maintenance and trash removal

### Planning – Level Cost Estimate

Construction completed as part of Quarry Park Phase I development.






# Quarry Loop Trail - Project 5 - Section B



# Trail Projects – 5 – Section B

-Scope-




Project 5: Quarry Loop Trail Section B		
<b>Description:</b>		
<p>A shared use path would run from the west side of Quarry Park then loop around a small unnamed quarry before heading east and returning to Quarry Park. This trail would be part of the larger Quarry Loop Trail system which is presented in 5 sections. Section B would connect at two points along Section A which circles Quinn Quarry. The initial design of the trail would be constructed out of A/B. Future plans to asphalt the trail will be designed and submitted in a grant application. The A/B path could be used as a base for the future asphalt project.</p>		
<b>Trail Type/Width</b>		
<p>A/B shared use path / 8-12' (a design with asphalt can be overlaid and is pending grant application and funding)</p>		
<b>Habitat</b>		
<p>Oak woodland, small wildlife and birds are present.</p>		
<b>Key Land Uses / Destinations</b>		
<p>A planned trail, serving local residents and connecting parks, historic sites, houses, shopping centers and roadways.</p>		
<b>Issues</b>		
<ul style="list-style-type: none"> <li>• Maintenance and trash removal</li> <li>• No preexisting trail</li> <li>• Close proximity to existing homes</li> </ul>		
<b>Planning – Level Cost Estimate</b>		
<p>Approximately \$55,000 (This amount can be severely reduced if natural surfacing is used instead of A/B with medium grading, \$10,000 - \$15,000) The A/B can be installed later and included in grant app.</p>		

# Quarry Loop Trail - Project 5 - Section C



# Trail Projects – 5 – Section C

-Scope-

Project 5: Quarry Loop Trail Section C		
<b>Description:</b>		
<p>A shared use path would run along Ruhkala Road. This trail would be part of the larger Quarry Loop Trail system which is presented in 5 sections. Section C would begin at the corner of Ruhkala Road and Evelyn Avenue and connect back to the main trail at Section B. The initial design of the trail would be constructed out of A/B. Future plans to asphalt the trail will be designed and submitted in a grant application. The A/B path could be used as a base for the future asphalt project.</p>		
<b>Trail Type/Width</b>		
<p>A/B shared use path / 8-12' (a design with asphalt can be overlaid and is pending grant application and funding)</p>		
<b>Habitat</b>		
<p>Oak woodland, small wildlife and birds are present.</p>		
<b>Key Land Uses / Destinations</b>		
<p>A planned trail, serving local residents and connecting parks, historic sites, houses, shopping centers and roadways.</p>		
<b>Issues</b>		
<ul style="list-style-type: none"> <li>• Maintenance and trash removal</li> <li>• No preexisting trail or sidewalk along Ruhkala Road</li> <li>• Some ROW might need to be acquired for connection to Section B</li> </ul>		
<b>Planning – Level Cost Estimate</b>		
<p>Approximately \$62,000 (This amount can be severely reduced if natural surfacing is used instead of A/B with medium grading. \$25,000 - \$35,000) The A/B can be installed later and included in grant app.</p>		




# Quarry Loop Trail - Project 5 - Section D





# Trail Projects – 5 – Section D

-Scope-



Project 5: Quarry Loop Trail Section D	
<b>Description:</b>	
<p>A shared use path would loop around the quarry east of Winding Lane connecting Sections A and B to Section E. This trail would be part of the larger Quarry Loop Trail system which is presented in 5 sections. The initial design of the trail would be constructed out of A/B and exact placement will be determined as part of planned residential development on the property. Future plans to asphalt the trail will be designed and submitted in a grant application. The A/B path could be used as a base for the future asphalt project.</p>	
<b>Trail Type/Width</b>	
<p>A/B shared use path / 8-12' (a design with asphalt can be overlaid and is pending grant application and funding)</p>	
<b>Habitat</b>	
<p>Oak woodland, small wildlife and birds are present.</p>	
<b>Key Land Uses / Destinations</b>	
<p>A planned trail, serving local residents and connecting parks, historic sites, houses, shopping centers and roadways.</p>	
<b>Issues</b>	
<ul style="list-style-type: none"> <li>• Maintenance and trash removal</li> <li>• No preexisting trail</li> <li>• Privately owned land will need to be acquired or developed and dedicated for public use</li> </ul>	
<b>Planning – Level Cost Estimate</b>	
<p>Approximately \$46,000 (This amount can be severely reduced if natural surfacing is used instead of A/B, \$15,000 - \$25,000) The A/B can be installed later and included in grant app.</p>	

# Quarry Loop Trail - Project 5 - Section E

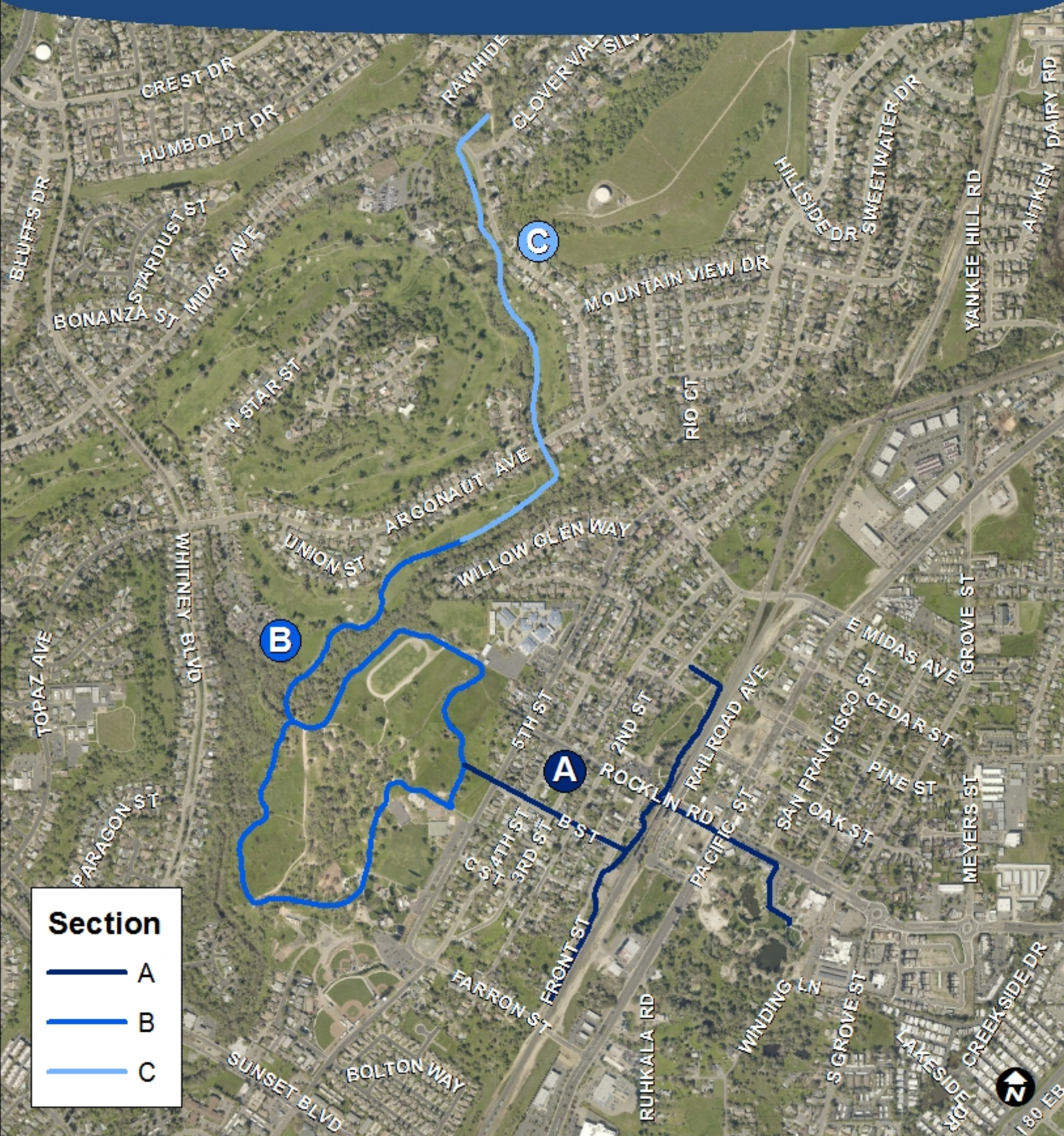


# Trail Projects – 5 – Section E

-Scope-

Project 5: Quarry Loop Trail Section E		
<b>Description:</b>		
<p>A shared use path would run along Winding Lane and Lost Avenue connecting Section D to Section C. This trail would be part of the larger Quarry Loop Trail system which is presented in 5 sections. The initial design of the trail would be constructed out of A/B and exact placement will be determined part of a planned residential development on the property. Future plans to asphalt the trail will be designed and submitted in a grant application. The A/B path could be used as a base for the future asphalt project.</p>		
<b>Trail Type/Width</b>		
A/B shared use path / 8-12' (a design with asphalt can be overlaid and is pending grant application and funding)		
<b>Habitat</b>		
Oak woodland, small wildlife and birds are present.		
<b>Key Land Uses / Destinations</b>		
A planned trail, serving local residents and connecting parks, historic sites, houses, shopping centers and roadways.		
<b>Issues</b>		
<ul style="list-style-type: none"> <li>• Maintenance and trash removal</li> <li>• No preexisting trail</li> <li>• Privately owned land will need to be acquired or developed and dedicated for public use</li> </ul>		
<b>Planning – Level Cost Estimate</b>		
<p>Approximately \$75,000 (This amount can be severely reduced if natural surfacing is used instead of A/B \$40,000 - \$50,000) The A/B can be installed later and included in grant app.</p>		

# Clover Greens Trail Project - 6



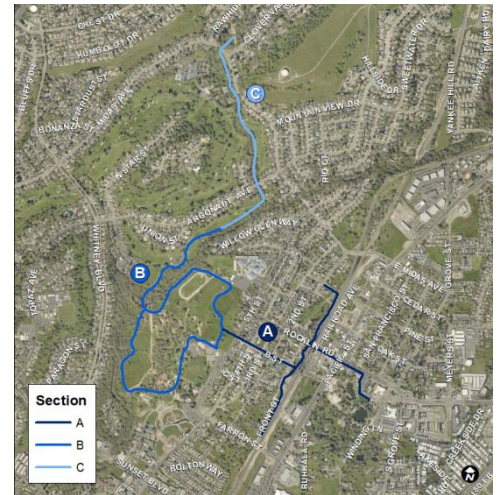
# Trail Projects – 6 – Sections A – C

-Ranking-

## Priority 1: Clover Greens Trail Sections A-C (Quarry Park to Clover Valley Park)

### Project Status and Description

The Clover Greens Trail will connect Quarry Park, Johnson Springview Park, and Clover Valley Park. Clover Greens is a local trail that starts at Quarry Park, follows the B Street corridor, runs along Antelope Creek through the Rocklin Golf Club and terminates at Clover Valley Park. The proposed trail would begin at Quarry Park, cross over Pacific Street to the B Street corridor which would connect to Johnson Springview Park. The trail would continue with a loop around Johnson Springview Park, and then would branch out to follow Antelope Creek to the Rocklin Golf Club. The trail would then roam through the Rocklin Golf Club along Antelope Creek until it terminates at Clover Valley Park.



### Demand

The Project scored high in demand because of its downtown connectivity between Quarry Park, Johnson Springview Park, Clover Valley and the former Rocklin Golf Club site. The trail will provide access to the Antelope Creek corridor as well.

Priority	Medium
Status	Feasibility Study
Type	Easy, Local, Multiuse
Length	3.732 Miles (19,706 feet)
Maintenance	Minimal Maintenance

### Connectivity

The project scored high in connectivity because it will provide access to several parks and homes.

### Feasibility

The project scored medium in feasibility as the City currently owns all of the land except for the section running through the former Rocklin Golf Club site which would require a use agreement or land acquisition. The project does not go through any open space preserves therefore there is minimal regulatory oversight.



### Cost

The project ranked in the medium-low range in the cost category because the City would need to minimally acquire new land, there is minimal regulatory oversight, and low construction and maintenance costs.



### Priority


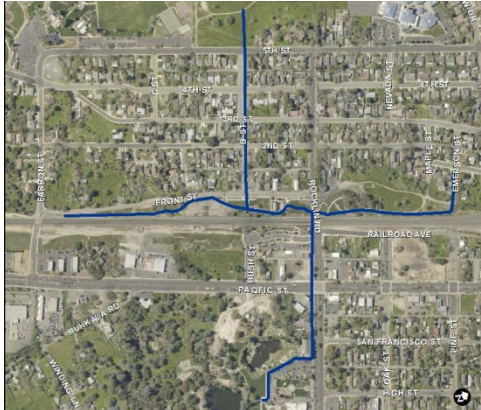
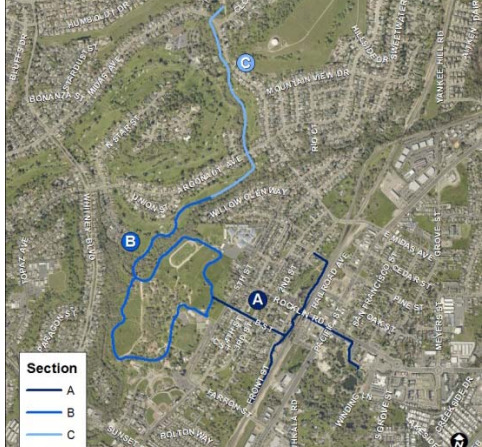
The project ranked in the medium priority category.

# Clover Greens Trail - Project 6 - Section A



# Trail Projects – 6 – Section A

-Scope-

Project 6: Clover Greens Trail Section A		
<b>Description:</b>		
<p>Clover Greens Trail Section A is a shared use path that would run from Quarry Park, along Rocklin Road and Front Street, to the B Street corridor, to Johnson Springview Park. This trail would be part of the larger Clover Greens Trail system which is presented in 3 sections. Section A would begin at Quarry Park and connect to the main trail at section B in Johnson Springview Park. This section of the trail would run primarily along existing roadways and walking paths. The trail would not run through protected open space and therefore would not require regulatory oversight. The initial design of the trail would be constructed on current City roadways and not require the installation of A/B material. Future plans to enhance portions of this section will be designed and submitted in a grant application.</p>		
<b>Trail Type/Width</b>		
<p>This trail will require minimal grading and utilizes existing City right of way. It is a shared use path with varying widths between sidewalks, bike lanes, and trails.</p>		
<b>Habitat</b>		
Residential neighborhoods and park land.		
<b>Key Land Uses / Destinations</b>		
A planned park connecting trail, serving local residents while providing a traffic free alternative along existing land easements		
<b>Issues</b>		
<ul style="list-style-type: none"> <li>• Crosses a major arterial street</li> <li>• Maintenance and trash removal</li> </ul>		
<b>Planning – Level Cost Estimate</b>		
Minimal cost for route identification. Design and construction of route enhancements such as the B St. Corridor have been identified in the 5 Year CIP.		



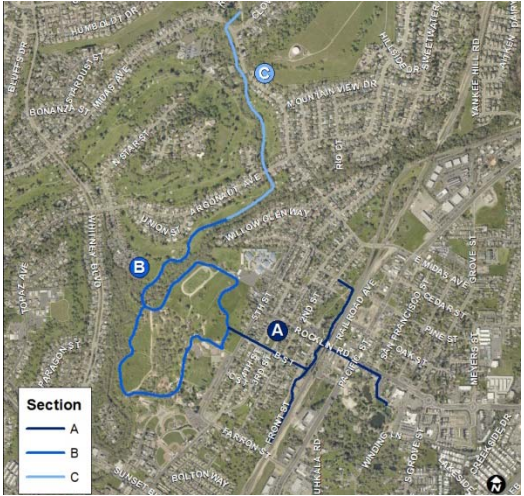
# Clover Greens - Project 6 - Section B



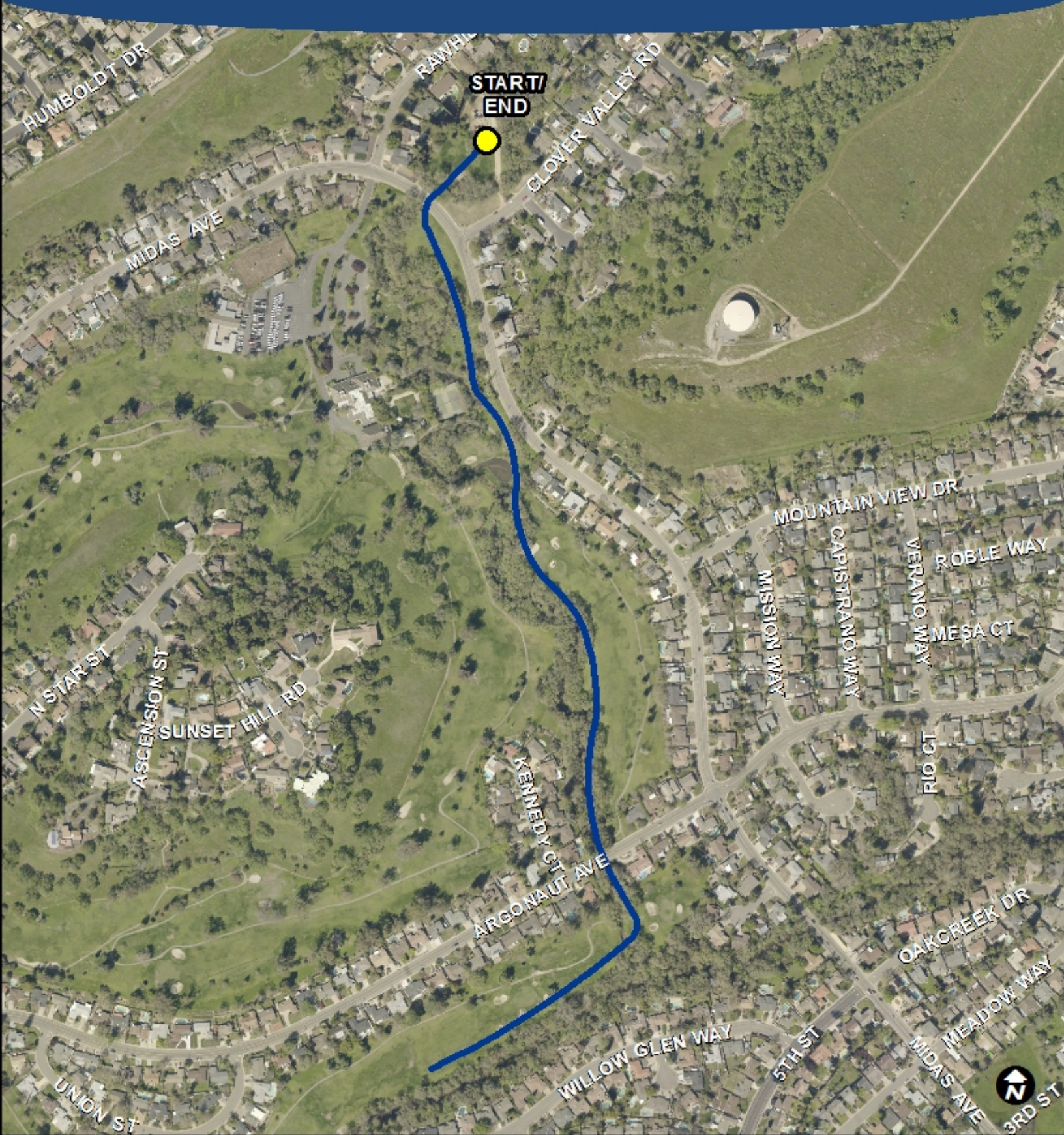


# Trail Projects – 6 – Section B

-Scope-



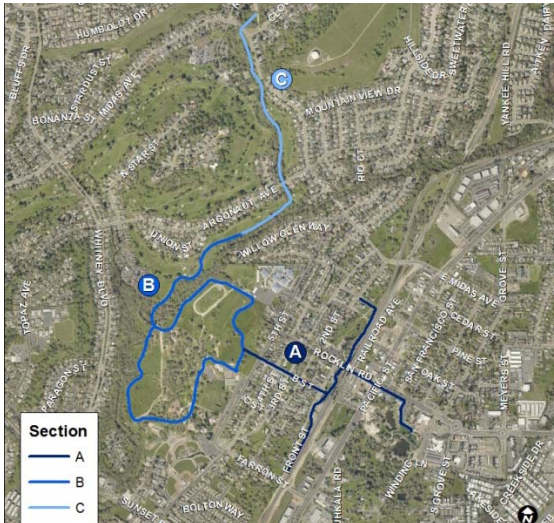
Project 6: Clover Greens Trail Section B	
<b>Description:</b>	
<p>Clover Greens Trail Section B is a shared use path that would run through Johnson Springview Park to the former Rocklin Golf Club site. This trail will be part of the larger Clover Greens Trail system which is presented in 3 sections. Section B would begin at Johnson Springview Park and connect to the main trail at sections A and C. The trail will not run through protected open space but does cross Antelope Creek and therefore will require regulatory oversight. The initial design of the trail would be constructed of A/B material. Future plans to asphalt the trail will be designed and submitted in a grant application. There is existing trail along most of the planned trail therefore light grading will be necessary.</p>	
<b>Trail Type/Width</b>	
<p>This trail will require light grading and A/B. It is a shared use path / 8-12'</p>	
<b>Habitat</b>	
<p>Park land, undeveloped land, and riparian zone adjacent to a creek, small wildlife and birds are present</p>	
<b>Key Land Uses / Destinations</b>	
<p>A planned park and wetland corridor trail, serving local residents while providing a traffic free alternative along existing city owned land.</p>	
<b>Issues</b>	
<ul style="list-style-type: none"> <li>Privately owned land in former golf course section will require land acquisition or special use agreement</li> <li>Maintenance and trash removal</li> <li>No preexisting trail in some sections</li> <li>Crosses Antelope Creek in 1 section</li> <li>Potential Flooding During Heavy Rain</li> </ul>	
<b>Planning – Level Cost Estimate</b>	
<p>Approximately \$321,000 (This amount can be severely reduced if natural surfacing is used instead of A/B with slight grading and signage, \$50,000 - \$60,000) The A/B can be installed later and included in the grant app.</p>	

# Clover Greens Trail - Project 6 - Section C

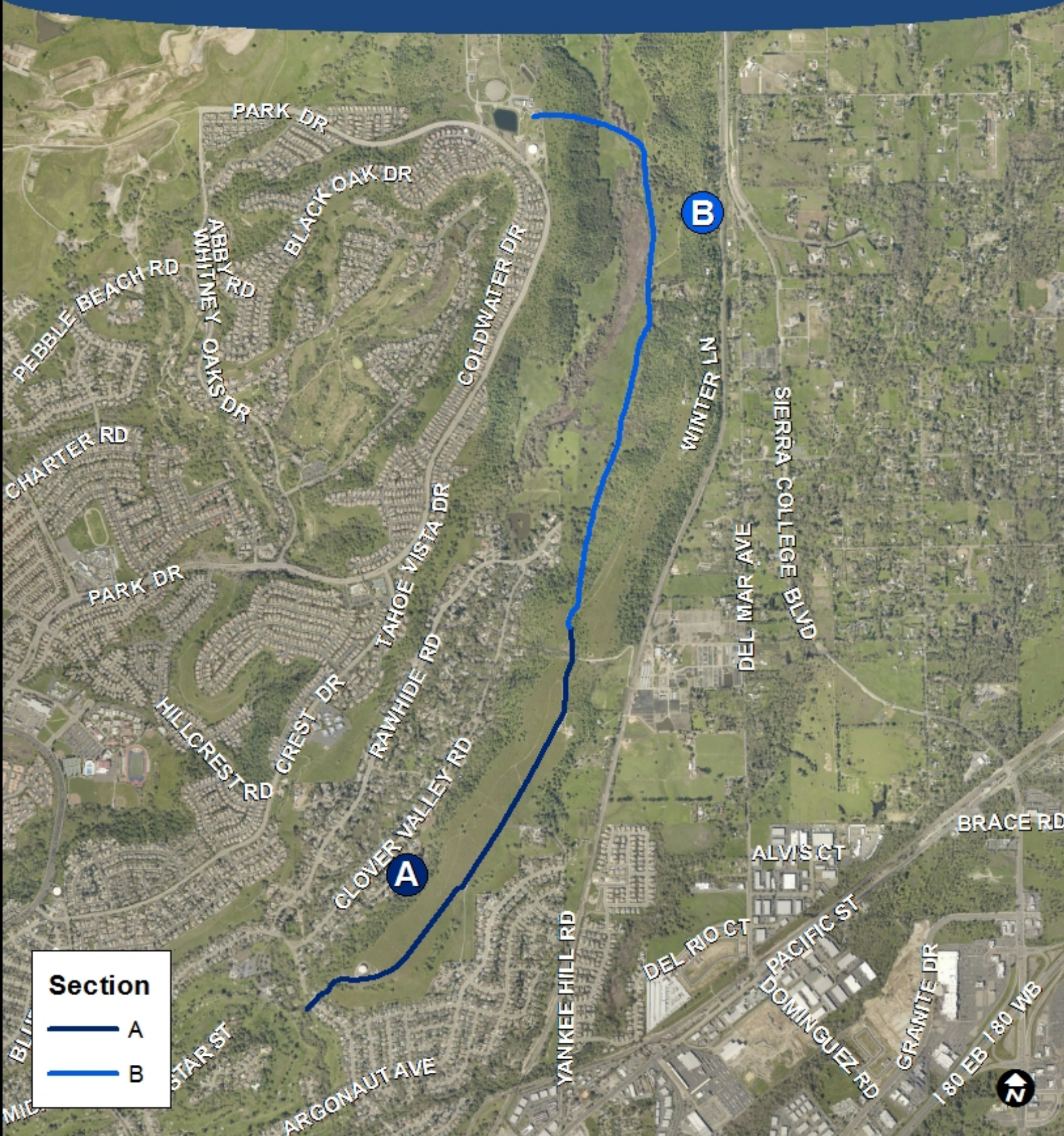


# Trail Projects – 6 – Section C

-Scope-

Project 6: Clover Greens Trail Section C	
<b>Description:</b>	
<p>Clover Greens Trail Section C is a shared use path that would run through the former Rocklin Golf Club site. This trail would be part of the larger Clover Greens Trail system which is presented in 3 phases. Section C would begin at Clover Valley Park and connect to the main trail at section B. The trail would not run through protected open space and therefore would require minimal regulatory oversight. The initial design of the trail would be constructed of A/B material. Future plans to asphalt the trail will be designed and submitted in a grant application. There is no existing trail on this section of the planned trail therefore grading will be necessary.</p>	
<b>Trail Type/Width</b>	
<p>This trail will require heavy grading and A/B. It is a shared use path / 8-12'</p>	
<b>Habitat</b>	
<p>Residential neighborhoods, park land, and riparian zone adjacent to a creek, small wildlife and birds are present</p>	
<b>Key Land Uses / Destinations</b>	
<p>A planned park and wetland corridor trail, serving local residents while providing a traffic free alternative along existing land easements</p>	
<b>Issues</b>	
<ul style="list-style-type: none"> <li>Privately owned land in former golf course section will require land acquisition or special use agreement</li> <li>Maintenance and trash removal</li> <li>No preexisting trail</li> <li>Crosses Antelope Creek</li> <li>Potential Flooding During Heavy Rain</li> <li>Proximity to existing homes back yards</li> </ul>	
<b>Planning – Level Cost Estimate</b>	
<p>Approximately \$88,000 (This amount can be severely reduced if natural surfacing is used instead of A/B with slight grading and signage, (\$45,000 - \$55,000) The A/B can be installed later and included in the grant app.</p>	

# Boulder Ridge Trail Project - 7



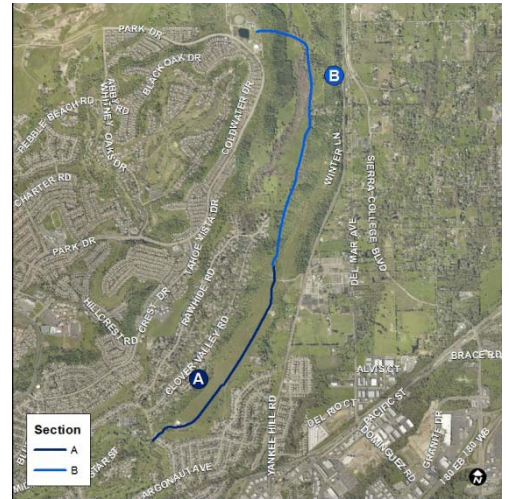
# Trail Projects – 7 – Sections A - B

## -Ranking-

### Priority 1: Boulder Ridge Trail Sections A-B (Boulder Ridge Park to Clover Valley Park)

#### Project Status and Description

The Boulder Ridge Trail will connect Clover Valley Park to Boulder Ridge Park. Boulder Ridge is a local trail that will run through Clover Valley and connect current and future homes to two neighborhood parks. Clover Valley hosts various types of wildlife and vegetation, including a riparian habitat bordering Clover Valley Creek, and has historical significance.



#### Demand

The Project scored high in demand because of its close proximity to homes and neighborhood parks. The trail will provide access to parks and undeveloped natural spaces.

Priority	Low
Status	Feasibility Study
Type	Easy, Local, Multiuse
Length	3.062 Miles (16,171 feet)
Maintenance	Minimal Maintenance

#### Connectivity

The project scored high in connectivity because it will provide a local trail that will link two neighborhood parks and create direct access between the central and northern portions of the City.

#### Feasibility

The project scored medium in feasibility and will rely on future planned development to construct some of the sections. The City does not own the land and would require a use agreement or land acquisition.



#### Cost

The project ranked in the low range in the cost category because of minimal regulatory oversight, and low construction and maintenance costs for the City.

#### Priority

The project ranked in the low priority category.





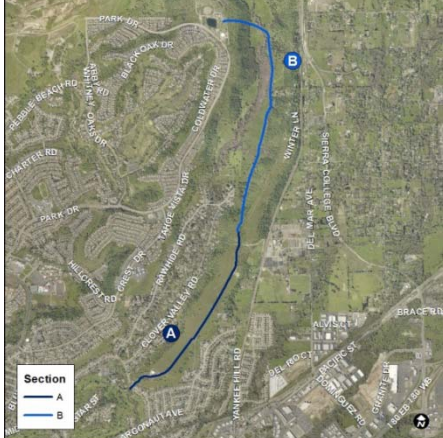
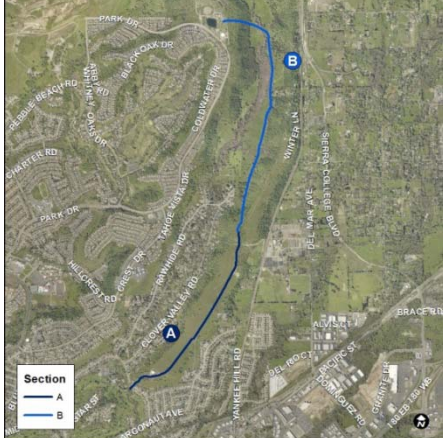


# Boulder Ridge Trail - Project 7 - Section A



# Trail Projects – 7 – Section A

-Scope-

Project 7: Boulder Ridge Trail Section A	
<b>Description:</b>	
<p>Boulder Ridge Trail Section A is a shared use path that would run along Clover Valley. This trail would be part of the larger Boulder Ridge Trail system which is presented in two sections. Section A would begin near Clover Valley Park and end at the north border of the planned development. The trail would run along protected open space, however future planned development in the area would assist with regulatory permitting and construction costs. The initial design of the trail would be constructed of A/B material. Future plans to asphalt the trail will be designed and submitted in a grant application.</p>	
<b>Trail Type/Width</b>	
<p>This trail will require grading and A/B. It is a shared use path / 8-12'</p>	
<b>Habitat</b>	
<p>Riparian zone adjacent to Clover Valley Creek, small wildlife and birds are present.</p>	
<b>Key Land Uses / Destinations</b>	
<p>A planned trail, serving local residents and connecting neighborhood parks.</p>	
<b>Issues</b>	
<ul style="list-style-type: none"> <li>Privately owned land</li> <li>Maintenance and trash removal</li> <li>No preexisting trail</li> </ul>	
<b>Planning – Level Cost Estimate</b>	
<p>Approximately \$217,500. Planned development will largely cover the cost.</p>	



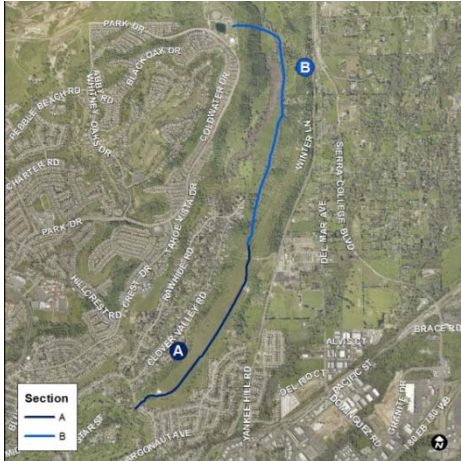
# Boulder Ridge Trail - Project 7 - Section B





# Trail Projects – 7 – Section B

-Scope-

Project 7: Boulder Ridge Trail Section B	
<b>Description:</b>	
<p>Boulder Ridge Trail Section B is a shared use path that would run along Clover Valley. This trail would be part of the larger Boulder Ridge Trail system which is presented in two sections. Section B would begin at Boulder Ridge Park and connect with Section A. The trail would run along protected open space, however future planned development in the area would assist with regulatory permitting and construction costs. The initial design of the trail would be constructed of A/B material. Future plans to asphalt the trail will be designed and submitted in a grant application.</p>	
Trail Type/Width	
<p>This trail will require grading and A/B. It is a shared use path / 8-12'</p>	
Habitat	
<p>Riparian zone adjacent to Clover Valley Creek, small wildlife and birds are present.</p>	
Key Land Uses / Destinations	
<p>A planned trail, serving local residents and connecting neighborhood parks.</p>	
Issues	
<ul style="list-style-type: none"> <li>Privately owned land</li> <li>Maintenance and trash removal</li> <li>No preexisting trail</li> <li>Crossing Clover Valley Creek</li> <li>Steep Grade to Boulder Ridge Park</li> </ul>	
Planning – Level Cost Estimate	
<p>Approximately \$268,000. Planned development will largely cover the cost.</p>	

# Granite Meadows Trail Projects – 8



# Trail Projects – 8 – Sections A – D

## -Ranking-

### Priority 1: Granite Meadows Trail Section A-D (Library to Sierra Meadows Park to Rocklin Commons)

#### Project Status and Description

The Granite Meadows Trail Sections A-C are located along Sucker Ravine Creek. Granite Meadows Trail is a local trail that starts at the Rocklin Branch of the Placer County Library and runs along Sucker Ravine Creek to Sierra Meadows Park, and ultimately to the Rocklin Commons Shopping Center. The proposed trail will parallel Granite Drive and connect residential and commercial centers.

#### Demand

The Project scored high in demand because of its close proximity to the Placer County Library, homes, and shopping centers. The trail will also provide access to undeveloped natural spaces.

#### Connectivity

The project scored high in connectivity because it will provide access to recreation, shopping, and county library resources.

#### Feasibility

The project scored medium in feasibility as the City does not currently own the land, however future planned developments in the area will assist with the regulatory permitting process and construction of the trail sections.

#### Cost

The project ranked in the medium-low range in the cost category because of minimal regulatory oversight, and low construction and maintenance costs to the City. Future planned developments in the area will assist with a portion of the construction of the trail and the associated environmental permitting costs.

#### Priority

Sections A and B ranked in the medium priority category. Section C ranked in the high priority category. Section D ranked in the medium priority category.



Priority	Sections A & B: Medium Section C: High Section D: Medium
Status	Feasibility Study
Type	Easy, Local, Multiuse
Length	2.129 Miles (11,240 feet)
Maintenance	Minimal Maintenance



# Granite Meadows - Project 8 - Section A



# Trail Projects – 8 – Section A

-Scope-

## Project 8: Granite Meadows Trail Section A

### Description:

Granite Meadows Trail is a shared use path that would run along Sucker Ravine Creek. This trail would be part of the larger Granite Meadows Trail system which is presented in 3 sections. Section A would begin at the Placer County Library and connect to Section B at Sierra Meadows Park. The trail would run through protected open space however future planned development in the area could assist with the environmental permitting process and construction. The initial design of the trail would be constructed of A/B material. Future plans to asphalt the trail will be designed and submitted in a grant application. There is no existing path along the planned trail therefore grading will be necessary.



### Trail Type/Width

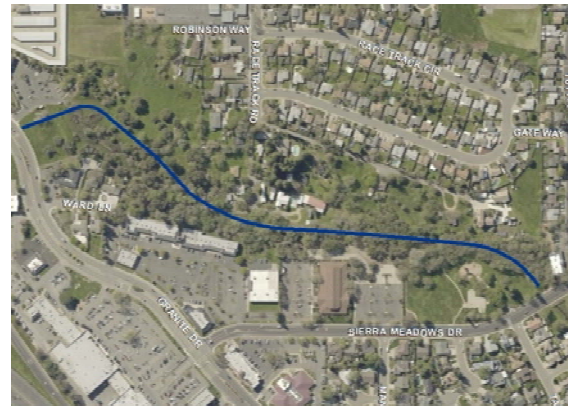
This trail will require grading and A/B. It is a shared use path / 8-12'

### Habitat

Riparian zone adjacent to wetlands and seasonal creek, small wildlife and birds are present.

### Key Land Uses / Destinations

A planned trail, serving local residents and connecting parks, homes, shopping centers, and roadways.



### Issues

- Adjacent to existing homes
- Maintenance and trash removal
- No preexisting trail
- Privately owned land
- Potential Flooding During Heavy Rain

### Planning – Level Cost Estimate

Approximately \$76,500 for construction only. Planned development will cover a portion of the cost of construction and the environmental permitting process.






# Granite Meadows - Project 8 - Section B



# Trail Projects – 8 – Section B

-Scope-

Project 8: Granite Meadows Trail Section B		
Description:		
<p>Granite Meadows Trail is a shared use path that would run along Sucker Ravine Creek. This trail would be part of the larger Granite Meadows Trail system which is presented in 3 sections. Section B would connect to Section A at Sierra Meadows Park and connect to Section C at Dominguez Road. The trail would run through protected open space however future planned development in the area could assist with the environmental permitting process and construction. The initial design of the trail would be constructed of A/B material. Future plans to asphalt the trail will be designed and submitted in a grant application. There is no existing path along the planned trail therefore grading will be necessary.</p>		
Trail Type/Width		
<p>This trail will require light grading and A/B. It is a shared use path / 8-12'</p>		
Habitat		
<p>Riparian zone adjacent to wetlands and seasonal creek, small wildlife and birds are present.</p>		
Key Land Uses / Destinations		
<p>A planned trail, serving local residents and connecting parks, homes, shopping centers and roadways.</p>		
Issues		
<ul style="list-style-type: none"> <li>• Adjacent to existing homes</li> <li>• Maintenance and trash removal</li> <li>• No preexisting trail</li> <li>• Privately owned land</li> <li>• Potential Flooding During Heavy Rain</li> </ul>		
Planning – Level Cost Estimate		
<p>Approximately \$92,000 for construction only. Planned development will cover a portion of the cost of construction and the environmental permitting process.</p>		

# Granite Meadows - Project 8 - Section C





# Trail Projects – 8 – Section C

-Scope-

## Project 8: Granite Meadows Trail Section C

### Description:

Granite Meadows Trail is a shared use path that would run along Sucker Ravine Creek. This trail would be part of the larger Granite Meadows Trail system which is presented in 3 sections. Section C would begin at Granite Drive and connect to Section B at Dominguez Road and Section D at the trail head. The trail would run through protected open space however planned development in the area could assist with the environmental permitting process and construction. The initial design of the trail would be constructed of A/B material. Future plans to asphalt the trail will be designed and submitted in a grant application. There is no existing path along the planned trail therefore grading will be necessary.



### Trail Type/Width

This trail will require light grading and A/B. It is a shared use path / 8-12'

### Habitat

Riparian zone adjacent to wetlands and seasonal creek, small wildlife and birds are present.

### Key Land Uses / Destinations

A planned trail, serving local residents and connecting parks, homes, shopping centers and roadways.



### Issues

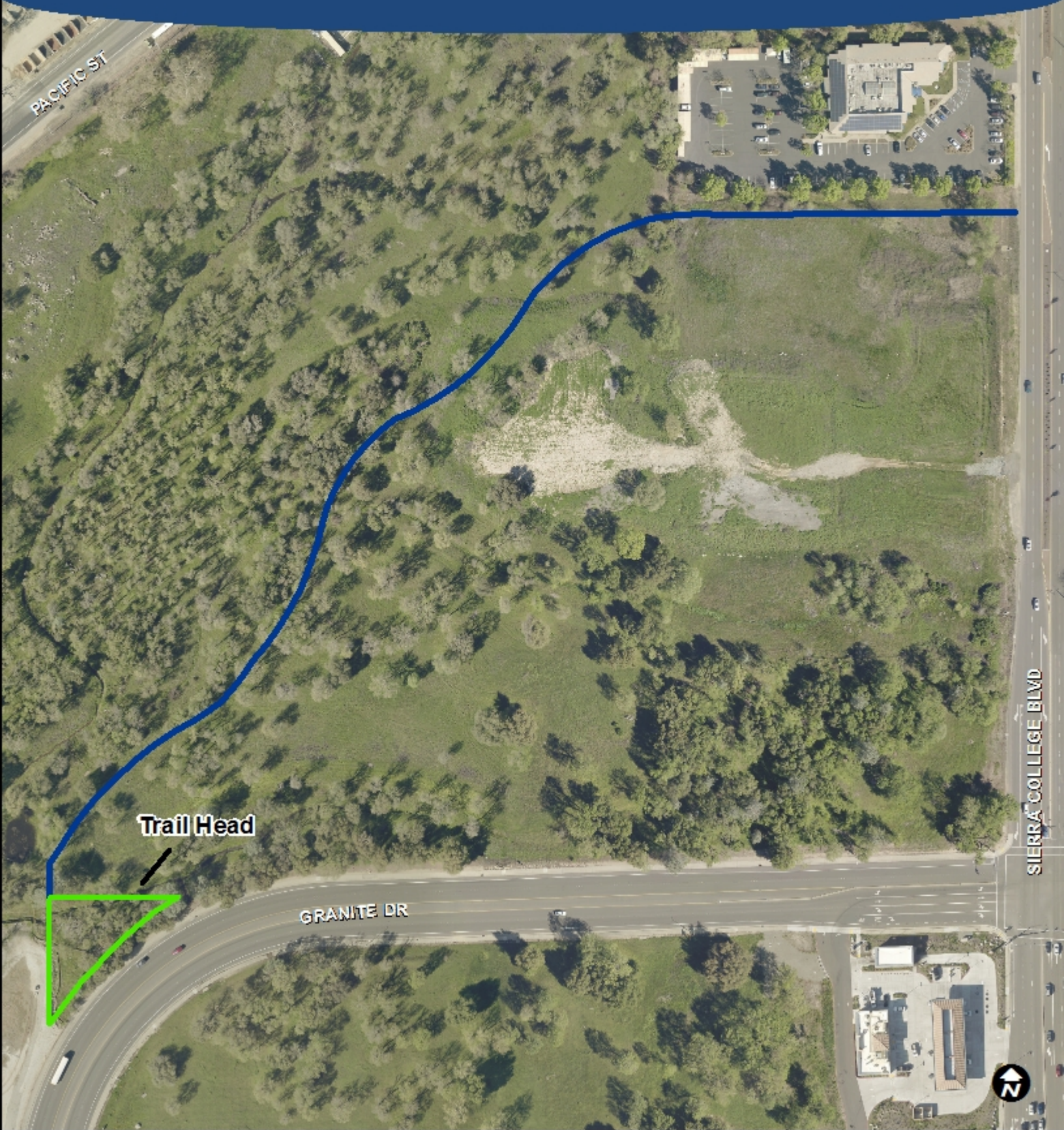
- Maintenance and trash removal
- No preexisting trail
- Signalized intersection will be required to cross Granite Drive
- Privately owned land
- Potential Flooding During Heavy Rain

### Planning – Level Cost Estimate

Approximately \$ 117,000 for construction only. Planned development in the area will cover a portion of the cost of construction and the environmental permitting process.






# Granite Meadows - Project 8 - Section D

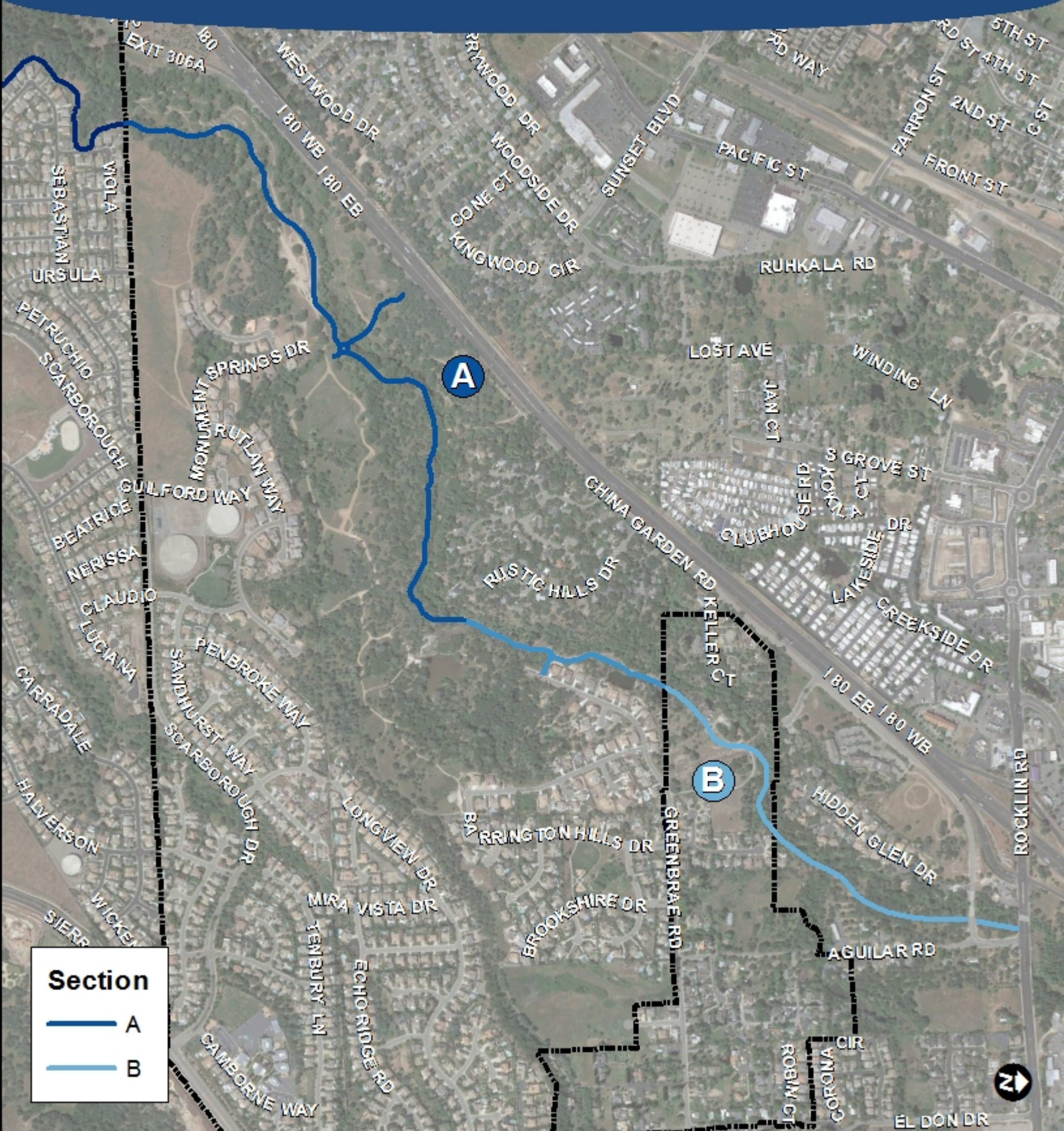


# Trail Projects – 8 – Section D

-Scope-

Project 8: Granite Meadows Trail Section D		
<b>Description:</b>		
<p>Granite Meadows Trail is a shared use path that would run along Sucker Ravine Creek. This trail would be part of the larger Granite Meadows Trail system which is presented in 4 sections. Section D would connect to Section C at the trail head on Granite Drive. The trail would run through protected open space however future planned development in the area could assist with the environmental permitting process and construction. The initial design of the trail would be constructed of A/B material. Future plans to asphalt the trail will be designed and submitted in a grant application. There is no existing path along the planned trail therefore grading will be necessary.</p>		
<b>Trail Type/Width</b>		
<p>This trail will require light grading and A/B. It is a shared use path / 8-12'</p>		
<b>Habitat</b>		
<p>Oak Woodland, small wildlife and birds are present.</p>		
<b>Key Land Uses / Destinations</b>		
<p>A planned trail, serving local residents and connecting parks, homes, shopping centers and roadways.</p>		
<b>Issues</b>		
<ul style="list-style-type: none"> <li>● Maintenance and trash removal</li> <li>● No preexisting trail</li> <li>● Privately owned land</li> </ul>		
<b>Planning – Level Cost Estimate</b>		
<p>Approximately \$52,200 for construction only. Planned development will cover a portion of the cost of construction and the environmental permitting process.</p>		

# Secret Ravine Trail Project - 9



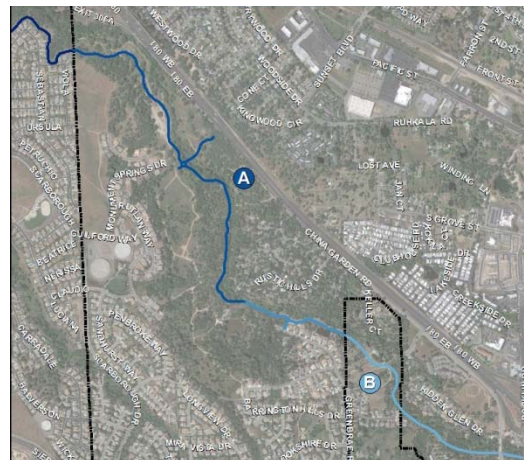
# Trail Projects – 9

## -Ranking-

### Priority 1: Secret Ravine Trail Sections A-B (Rocklin Road to Southern City Limits)

#### Project Status and Description

The Secret Ravine Trail will connect Rocklin Road to an existing trail off of Greenbrae Road and eventually tie into the Roseville trail system at the City’s southern limit. Secret Ravine is a regional trail that will run along Secret Ravine Creek and connect Sierra College, current and future homes, and Roseville’s trail system.



#### Demand

The Project scored high in demand because of its close proximity to homes, Sierra College, and connection to Roseville’s trail system as well as its ability to provide access to undeveloped natural spaces.

Priority	Low
Status	Feasibility Study
Type	Easy, Local, Multiuse
Length	1.194 Miles (10,105 feet)
Maintenance	Minimal Maintenance

#### Connectivity

The project scored high in connectivity because it will provide a regional trail that will provide direct access to Roseville’s extensive trail network and will connect Sierra College and several neighborhoods.

#### Feasibility

The project scored medium in feasibility and will rely on future planned development to construct some of the sections. The City does not own the land and would require a use agreement or land acquisition.



#### Cost

The project ranked in the low range in the cost category because of minimal regulatory oversight, and low construction and maintenance costs for the City. The City does not currently own all of the land necessary for the trail therefore acquiring land will require creating use agreements with the land owners or purchasing the land which would increase the cost of the project.



#### Priority




The project ranked in the low priority category.

# Secret Ravine Trail - Project 9 - Section A



# Trail Projects – 9 – Section A

-Scope-




Project 9: Secret Ravine Trail Section A	
<b>Description:</b>	
<p>Secret Ravine Trail is a shared use path that would run along Secret Ravine Creek. This trail would be part of the larger Secret Ravine Trail system which is presented in 2 sections. Section A would begin at the southern City limits where it would connect to Roseville’s trail system and run to an existing trail behind Greenbrae Road. The trail would run through protected open space however planned development in the area could assist with the environmental permitting process and construction. The initial design of the trail would be constructed of A/B material. Future plans to asphalt the trail will be designed and submitted in a grant application. There is no existing path along the planned trail therefore grading will be necessary.</p>	
<b>Trail Type/Width</b>	
<p>This trail will require light grading and A/B. It is a shared use path / 8-12’</p>	
<b>Habitat</b>	
<p>Riparian zone adjacent to wetlands and seasonal creek, small wildlife and birds are present.</p>	
<b>Key Land Uses / Destinations</b>	
<p>A planned trail, serving local residents and connecting parks, homes, shopping centers and roadways.</p>	
<b>Issues</b>	
<ul style="list-style-type: none"> <li>● Maintenance and trash removal</li> <li>● No preexisting trail</li> <li>● Privately owned land</li> </ul>	
<b>Planning – Level Cost Estimate</b>	
<p>Approximately \$196,000 for construction only. Planned development in the area will cover a portion of the cost of construction and the environmental permitting process.</p>	
	





# Trail Projects – 9 – Section B

-Scope-

Project 9: Secret Ravine Trail Section B	
<b>Description:</b>	
<p>Secret Ravine Trail is a shared use path that would run along Secret Ravine Creek. This trail would be part of the larger Secret Ravine Trail system which is presented in 2 sections. Section B would begin at Rocklin Road near the intersection with Aguilar and run to an existing trail behind Greenbrae Road. The trail would run through protected open space, which would require environmental permits, and privately owned lands, which would require several land use agreements. The initial design of the trail would be constructed of A/B material. Future plans to asphalt the trail will be designed and submitted in a grant application. There is no existing path along the planned trail therefore grading will be necessary</p>	
<b>Trail Type/Width</b>	
<p>This trail will require light grading and A/B. It is a shared use path / 8-12'</p>	
<b>Habitat</b>	
<p>Riparian zone adjacent to wetlands and seasonal creek, small wildlife and birds are present.</p>	
<b>Key Land Uses / Destinations</b>	
<p>A planned trail, serving local residents and connecting parks, homes, shopping centers and roadways.</p>	
<b>Issues</b>	
<ul style="list-style-type: none"> <li>• Maintenance and trash removal</li> <li>• No preexisting trail</li> <li>• Privately owned land held by many land owners</li> </ul>	
<b>Planning – Level Cost Estimate</b>	
<p>Approximately \$108,000 for construction only. Land acquisition and the environmental permitting process will be an additional cost.</p>	

# Design Guidelines



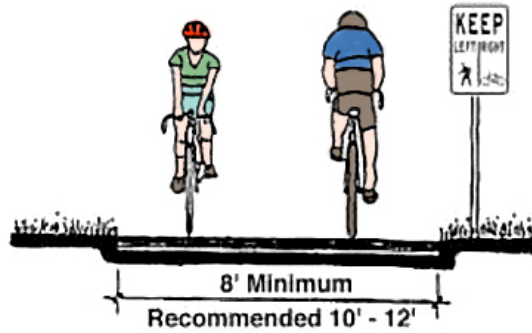
“Take a quiet walk with  
Mother Nature. It will  
nurture your mind, body,  
and soul”

— *Anthony Douglas Williams*

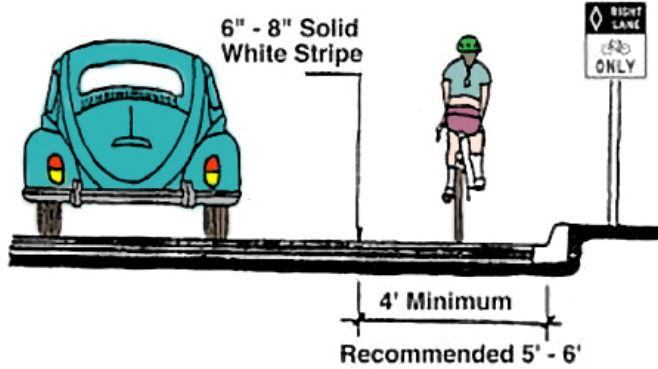
# Design Guidelines

## TYPICAL BICYCLE FACILITIES

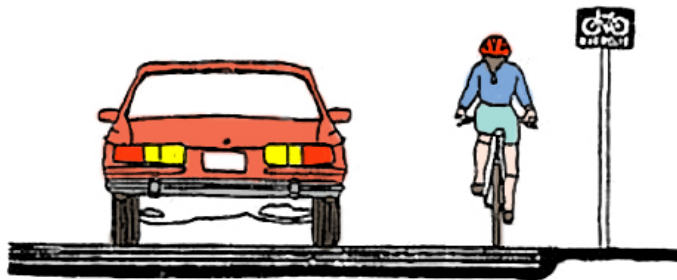
### Shared Use Path



### Bike Lane

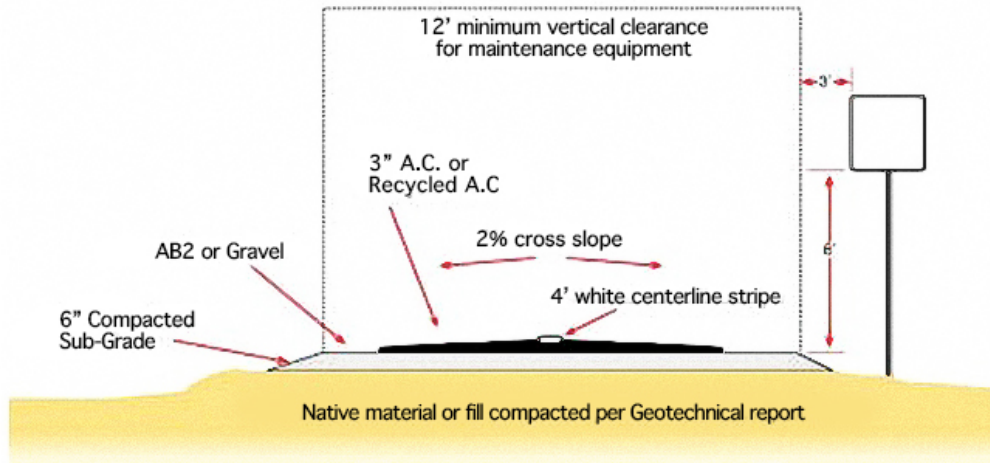


### Shared Roadway

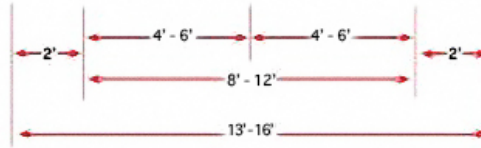


# Design Guidelines

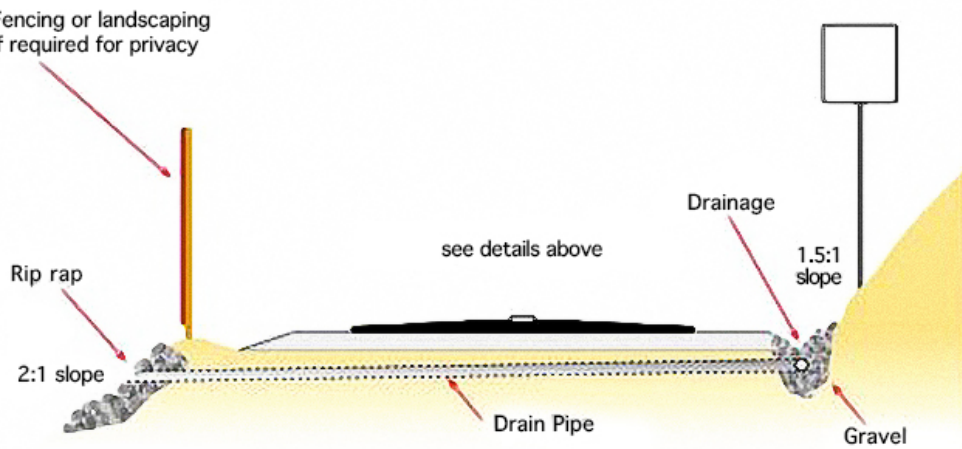
## SHARED USE PATH STANDARDS



Implementation on Level Ground



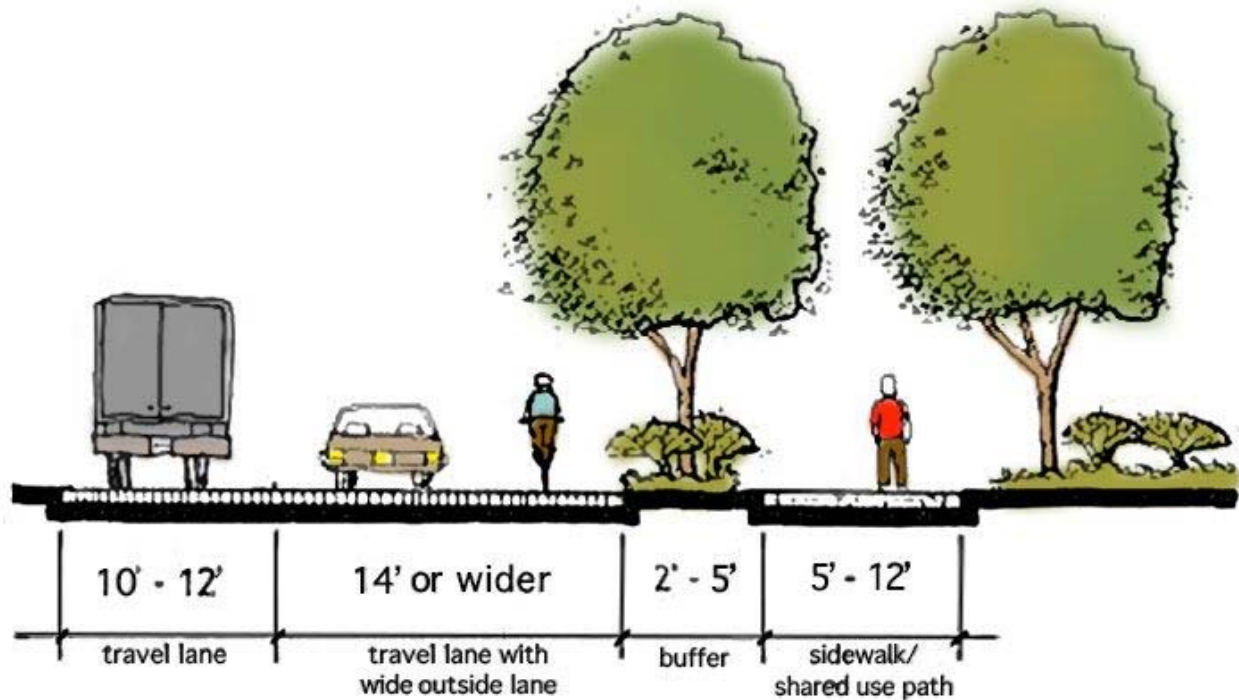
Fencing or landscaping if required for privacy



Implementation on Level Ground

# Design Guidelines

## SIDEWALK AND BUFFER WIDTHS



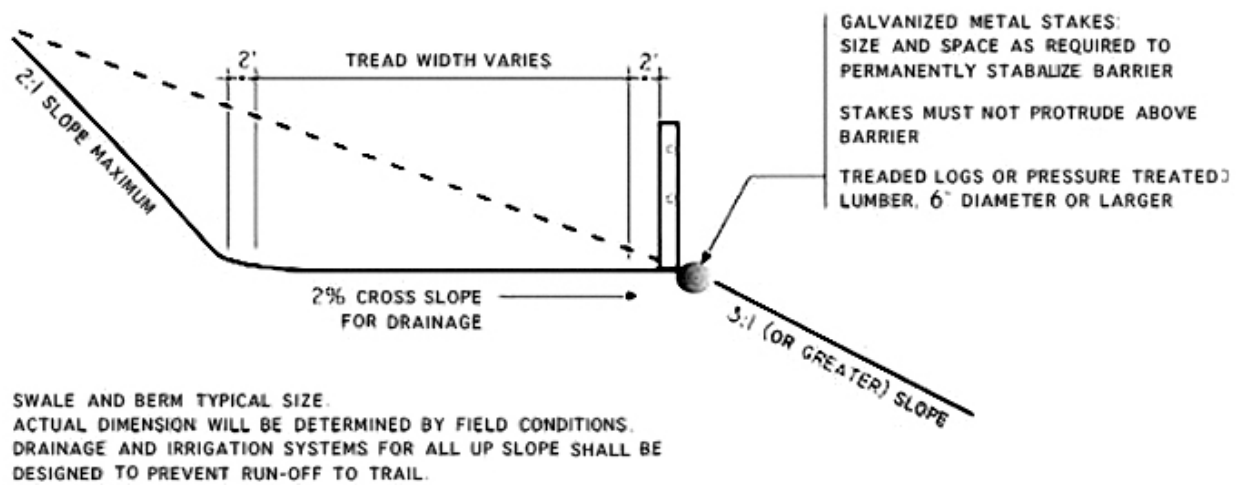
On roadways with 3,000 ADT or higher, bicycle lanes should be used to improve bicyclist safety and comfort. A buffer or curb must separate the shared use path or sidewalk from the roadway for pedestrian safety. The width of the bicycle lane, buffer, and sidewalk or shared use path should appropriately reflect the volume and speed of the vehicles using the roadway. Roadways with higher traffic volumes and speeds should have wider bicycle and pedestrian facilities.

Pedestrians should be separated from low volume roadways by a curb if there is insufficient space for a buffer. The width of the sidewalk or shared use path should depend on the traffic volume, traffic type, and speeds of the adjacent roadway: higher volumes and speeds warrant wider facilities. The minimum width for pedestrian only paths will be five feet and the minimum width for shared use paths will be eight feet.

# Design Guidelines

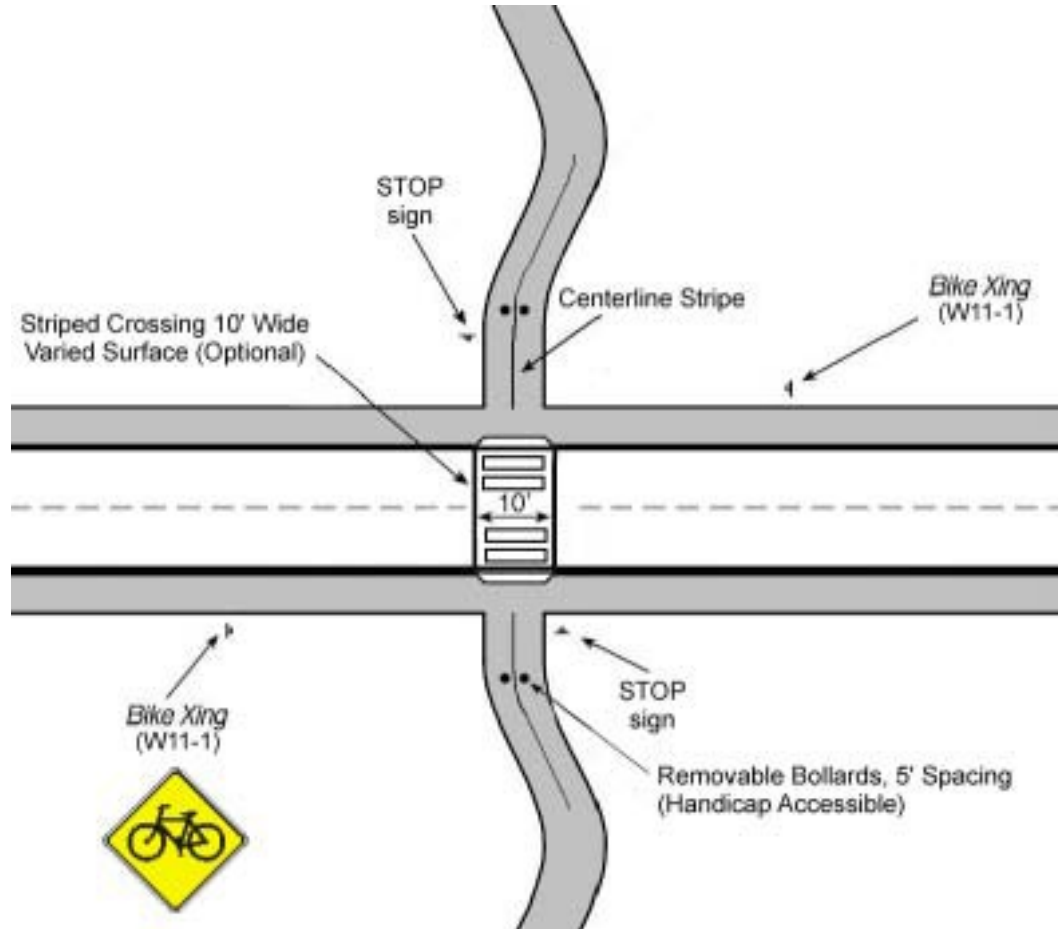
## TRAILS ON STEEP SLOPES

Trails can vary in width depending on the existing topographic and environmental constraints. They should take into account issues like drainage, erosion, slope/grade, presence of waterways, vegetation, riparian and habitat areas, environmental requirements and regulations, and others. Areas with earthen walking trails (i.e., parks and natural areas) should have a complimentary accessible route that meets or exceeds ADA standards in addition to the earthen walking trails. Trail width will depend on intended users. For example, narrower widths (2 ft. – 6 ft.) would be used in an environmentally constrained area with only pedestrian uses intended. Wider widths (8 ft. +) would be desirable for shared use with bicycles and other trail users.



# Design Guidelines

## TRAIL CROSSINGS: TYPE 1 – UNPROTECTED



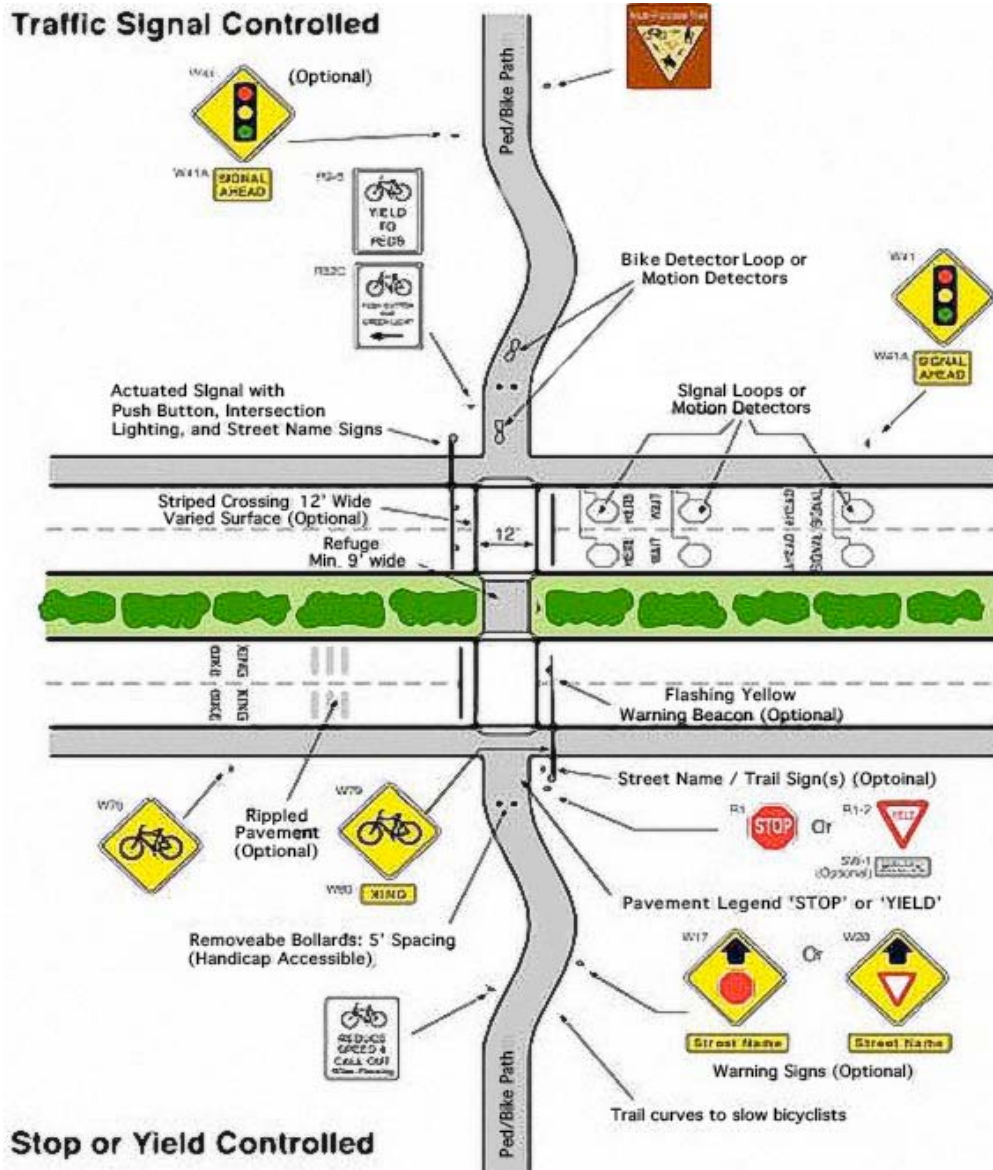
An unprotected crossing (Type 1) consists of a crosswalk, signing and often no other devices to slow or stop traffic. The approach to designing crossings at mid-block locations depends on an evaluation of vehicular traffic, line of sight, trail traffic, use patterns, vehicle speed, road type and width and other safety issues.

## TRAIL CROSSINGS: TYPE 2 – DIVERT TO EXISTING SIGNAL

Crossings within 250 feet of an existing signalized intersection with pedestrian crosswalks are typically diverted to the signalized intersection for safety purposes. For this option to be effective, barriers and signing may be needed to direct trail users to the signalized crossings. In most cases, signal modifications would be made to add pedestrian detection and to comply with the ADA. Trail users have a tendency to cross at an unmarked trail intersection when formal trail crossings are located further than 250 feet.

# Design Guidelines

## TRAIL CROSSINGS: TYPE 3 – NEW SIGNAL

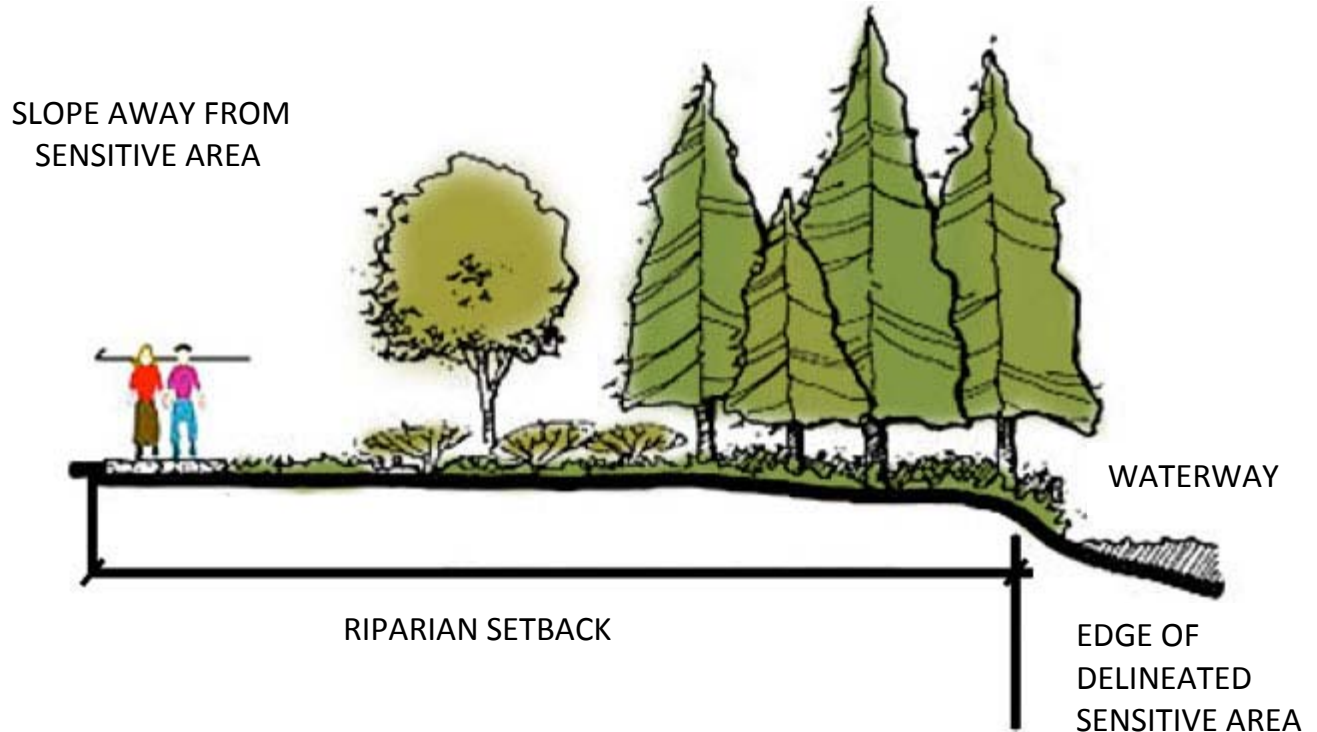


Signalized crossings (Type 3) are recommended for crossings more than 250 feet from an existing signalized intersection and where 85th percentile travels speeds are 40 M.P.H. and above and/or ADT exceeds 15,000 vehicles. Each crossing, regardless of traffic speed or volume, requires additional review by a registered engineer to identify sight lines, potential impacts on traffic progression, timing with adjacent signals, capacity and safety.



# Design Guidelines

## SHARED USE PATH ADJACENT TO ENVIRONMENTALLY SENSITIVE AREA



## TRAIL LANDSCAPING AND REVEGETATION

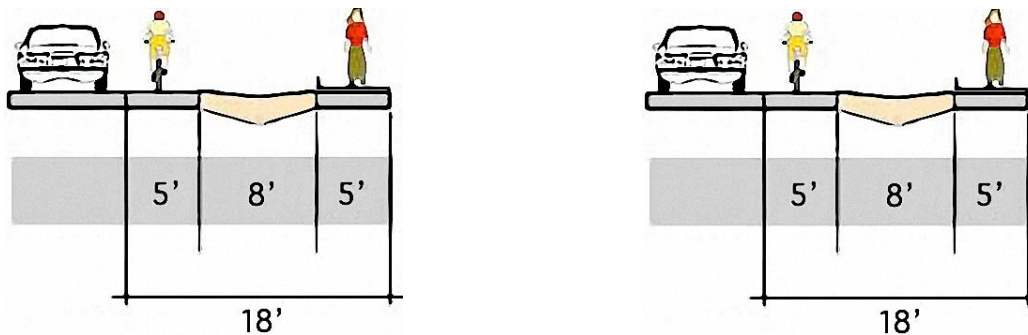
Trailside landscaping and revegetation should consist of suitable trees, shrubs, and groundcovers and a compilation of native plant species by habitat types recommended by the City of Rocklin. The information on habitat types is intended to provide general guidance for appropriate planting locations; certain plants, however, have highly specialized habitats which may make them appropriate for use only in specific areas of the City. For this reason, it may be helpful to consult with local botanists or published sources when preparing a planting plan. Restoration work should largely focus on the removal and control of non-native species and release of existing native species. Native tree and shrub plantings should occur at the base of slope transitioning to grasses at the top of slope in order to reduce fire danger and preserve existing views. Trails established close to the stream beds should use suitable plants for the habitat type.

# Design Guidelines

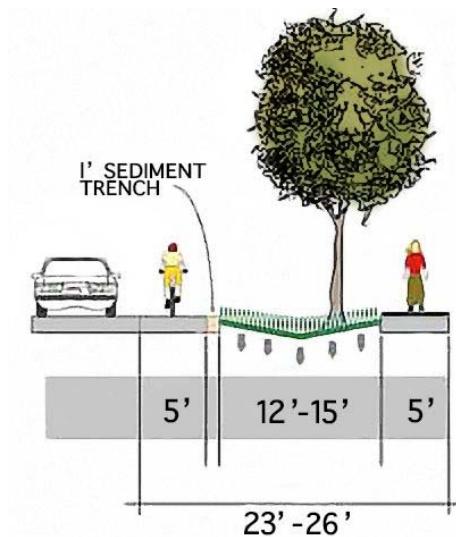
## GREEN CONCEPTS FOR TRAILS AND SIDEWALKS

Filter strips and bio-swales are innovative ways to retain and treat storm water from impervious surfaces. The design guidelines for filter strips and swales are similar; both methods use grassy vegetation or aggregate to remove sediment from storm water runoff. Use of filter strips and swales can be limited in retrofit situations due to slope, soil, and right-of-way conditions. Existing underground utility conflicts may increase cost and complexity.

Filter strips are gently sloped grassy and aggregate areas that are used to treat small quantities of sheet flow runoff. They are often used to pretreat flow of minimal depth (.5 inches) as it passes from an impervious area into a swale or infiltration area.



Swales are shallow, wide depressions adjacent to roadways and trails that collect storm water runoff over vegetation to slowly settle sediments and particulate matter. The pollutants are filtered out, settled, or removed by plants, causing fewer pollutants to enter ecologically sensitive water bodies.



Bio-Swale Guidelines	
Optimal Length	200-250 ft.
Slope of sides (optimal)	1% - 2%
Slope of sides (minimum, maximum)	1%, 6%
Optimal water depth	3 inches
Optimal width	12 ft.