



COLUMBIA CIRCULATION IMPROVEMENT PLAN

Final: May 2010



Prepared for:

Tuolumne County Transportation Council
2 South Green Street
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One Team. Infinite Solutions

Executive Summary

The Columbia Circulation Improvement Plan (CCIP) builds upon planning work previously undertaken by Tuolumne County, the community of Columbia, and local and state transportation agencies over the past several years and will guide the implementation of new land use and transportation coordinated strategies for growth and capital improvements. The CCIP is intended to supplement the Columbia Community Plan by better integrating it with transportation planning in the County.

The project has been implemented in multiple phases with stakeholder and community involvement. As part of the process, six Technical Memorandums have been prepared. The Technical Memorandums are summarized in the CCIP and are included on a CD in the back of this report. The CCIP is organized into the following chapters:

- Chapter 1: Introduction
- Chapter 2: Community Profile
- Chapter 3: Relevant Studies and Reports
- Chapter 4: Community Outreach
- Chapter 5: Transportation Solutions
- Chapter 6: Implementation

The purpose of the CCIP is to identify and evaluate a range of improvement projects for existing roadways, bike paths, trails, and other circulation related improvements that will help create a network of safe, comfortable, historically sensitive, pedestrian and bicycle-friendly routes. The goals of the project include: 1) strengthen the economy; 2) promote infill development and social equity; 3) protect the environment; 4) promote jobs and affordable housing balance; and, 5) link housing, transportation, and land use planning.

Many past planning efforts in Columbia and the County have identified circulation improvements in and adjacent to Columbia. Each of the prior plans has had a different focus and the level of planning for the projects identified in the reports varies. Chapter 3 of the CCIP includes a review of the existing documents to help supplement the public input collected during the CCIP project to form a clearer picture of the Community/County's collective vision for transportation improvements in Columbia.

Chapter 4 includes the transportation gaps that were identified through the stakeholder and community outreach efforts. The gaps were refined to a list of 13 general categories, including: 1) an adequate transportation plan is needed for the community; 2) facilities/programs that encourage alternative transportation are needed; 3) wayfinding signage is lacking in the community; 4) enhanced safety lighting is needed in the community; 5) improved vehicular flow/access to community destinations is needed; 6) parking capacity is inadequate; 7) increased accessibility of the transportation network; 8) lack of a definable "village center";

9) traffic volumes in the community are causing undesirable conditions; 10) need for beautification projects along transportation infrastructure; 11) need funding for maintenance of transportation infrastructure; 12) alleviation of vehicular chokepoints is needed; and, 13) improved historic and/or aesthetic image of the community is desired. These categories were then used to help formulate and prioritize the projects.

Chapter 5 includes detailed descriptions of the projects, including prioritization. The prioritization results are attached in two tables at the end of Chapter 5. The first table shows the prioritization with ranking of all of the projects in one group and the second table shows the prioritization by category (aesthetic, safety, bike/pedestrian, capacity, parking, transit, other). In general, the projects with the highest priority include:

1. (BR-01) Parrotts Ferry Road Bypass Feasibility Study (capacity project)
2. (BO-01) Columbia State Historic Park Bicycle Parking Facilities (bike/pedestrian project)
3. (IG-06) Sawmill and Parrotts Ferry Road Intersection Modification Study (capacity project)
4. (BP-01 – BP-04) Columbia to Sonora Bicycle/Pedestrian Connector (bike/pedestrian project)
5. (IG-01) Pedro Wye Intersection Improvement Study (safety project)
6. (PO-03) Columbia Trails Wayfinding Signage Improvement Project (bike/pedestrian project)
7. (BO-02) Columbia Airport Bicycle Rental and Parking Facilities (bike/pedestrian project)
8. (IG-03, IG-05) Columbia State Historic Park Gateway Enhancement (aesthetic project)
9. (IE-07) Columbia Elementary Crossing Project (safety project)
10. (OT-01) Columbia Road, Trail, and Landscape Maintenance Funding Alternatives Feasibility Study (other)
11. (TF-01) Columbia Inter-Agency Transit Shelter Project (transit project)
12. (IG-02) Columbia ‘Star’ Intersection Improvement Study (safety project)
13. (BP-07) Airport Road Bicycle/Pedestrian Improvement Project (bike/pedestrian project)
14. (IE-04) State and Broadway Intersection Enhancement Project (aesthetic project)
15. (IE-01) Columbia Community Gateway Monument Project (aesthetic project)

The implementation strategy in Chapter 6 includes a discussion of lead agencies and potential funding sources. Once the plan is adopted, implementation will occur as funding is available. When a funding supply becomes available, the CCIP can be referenced to identify the projects that had the highest level of community support for that funding mechanism. Tuolumne County Transportation Council (TCTC) will also be able to program some of the projects into their annual budgeting process. The CCIP is intended as a guidebook for agencies responsible for making Columbia a better place to live, work, and play. As with any planning document, it will ultimately be the responsibility of these individuals, empowered with sustained community participation and support that will determine the degree of success the plans achieve in the community.

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1.0 Introduction

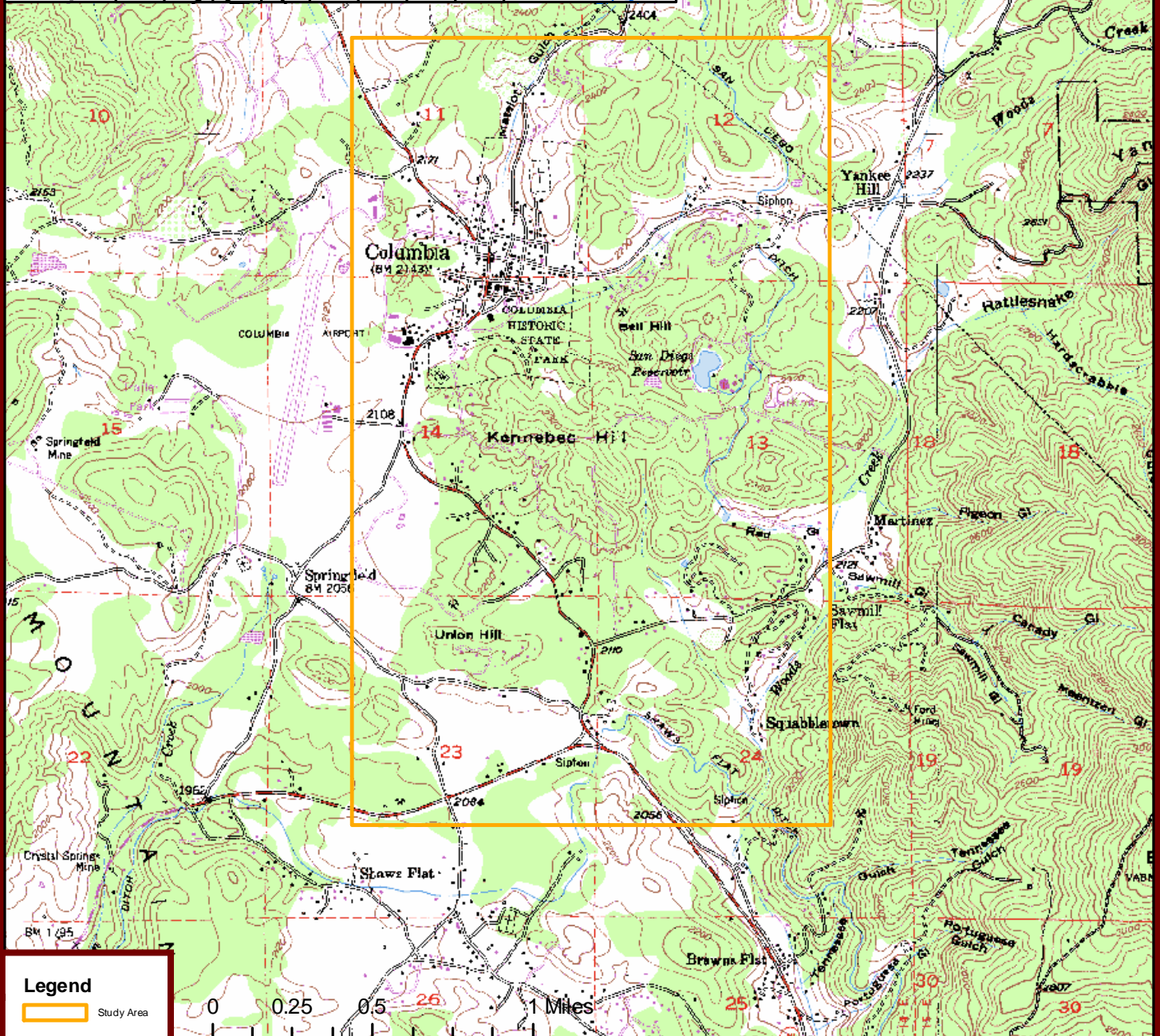
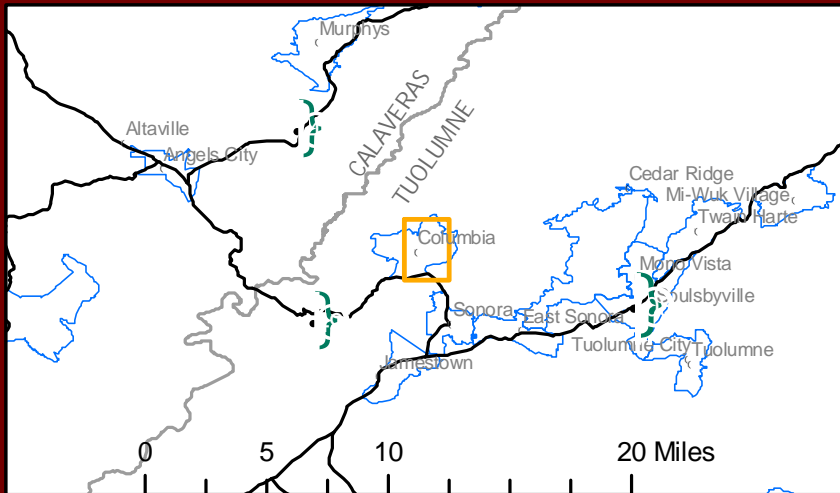
Stantec Consulting Services Inc., in a cooperative effort between the Tuolumne County Transportation Council, Tuolumne County, and Caltrans, has prepared the Columbia Circulation Improvement Plan (CCIP) for the community of Columbia. The CCIP builds upon planning work previously undertaken by Tuolumne County, the community of Columbia, and local and state transportation agencies over the past several years and will guide the implementation of new land use and transportation coordinated strategies for growth and capital improvements. The CCIP is intended to supplement the Columbia Community Plan by better integrating it with transportation planning in the County.

The CCIP is a first effort to integrate bicycle and pedestrian planning, circulation planning, and traffic calming development strategies within the broader transportation and land use planning efforts of TCTC. These strategies have been prioritized within a financially constrained Capital Improvement Program for Columbia. The CCIP will document (and refine) some of the design criteria and projects that were developed from past planning efforts, including:

- Tuolumne County General Plan, Circulation Element (1996)
- Tuolumne County Regional Transportation Plan (2006/07)
- Columbia Community Plan (2009)
- Columbia State Historic Park General Development Plan (1979)
- Tuolumne County Recreation Master Plan (1996)
- Tuolumne County Bikeways and Trails Plan (2004)

Columbia is a rural foothill mountain community in Tuolumne County, California (see Figure 1: Location of Columbia). One of the primary objectives of the mobility strategy for the Columbia Circulation Improvement Plan (CCIP) is to reduce the dominance of the existing street and roadway network in Columbia and emphasize walkability and bicycle access in the community where feasible. By introducing a more human scale within the greater Columbia community area, a more livable environment will be created which provides for all modes of circulation in and around Columbia, and allows residents to do so in a healthy, interesting, safe, and pleasurable way.

As development increases around the greater Columbia community area, the pressures on the community's transportation infrastructure will increase. The CCIP will identify several different strategies that will assist in implementation of the community's goals, policies, and objectives established in past planning efforts. The CCIP will also identify a hierarchy of improvement projects which will enhance the dominant forms of transportation circulation in and around the greater Columbia Community area.



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Figure 1

Location of Columbia

Columbia Circulation Improvement Plan Existing Conditions

The CCIP is intended to identify and evaluate a spectrum of improvement projects for existing roadways, bike pathways, and trails that will help create a network of safe, comfortable, historically sensitive, pedestrian and bicycle-friendly routes. A common theme evident in all of the documents prepared previously is that there is a strong desire to accommodate all forms of transportation and that street and roadway design should not negatively impact the pedestrian, bicycle, and transit experience of the community or the community's historic resources.

Enhancing the connections between housing, employment, retail, recreation, parks, and open space assists in creating livable neighborhoods, convenient work places, and a community which is a desirable place to live. The streetscapes should reinforce a healthy and safe community by calming vehicular traffic and providing safe routes for residents and community visitors alike to walk and bike within the community.

Because the CCIP Area is hilly and partially developed, the types of pedestrian, bicycle, and roadway infrastructure being proposed are significant in terms of scale and cost. The plan strives to implement objectives and policies from past planning documents that will guide the infrastructure improvements essential to the transformation of Columbia into the walkable, mixed-use, historical community that is envisioned.

1.1 CCIP NEED/JUSTIFICATION

The TCTC identified the following reasons for why the CCIP is needed and/or justified.

- Downtown Columbia and residential areas are not connected by adequate pedestrian and bicycle facilities.
- Columbia is served by limited transit services.
- The Tuolumne County General Plan for the Columbia area allows for new housing developments and new industrial and commercial uses to stimulate economic development. However, without an adequate transportation plan for the future the community livability may not be sustained.
- Columbia College is planning a major expansion.
- Columbia Community Plan needs to be better linked with transportation plans.
- A blueprint for transportation enhancements that will be included with the Regional Transportation Plan (RTP) is needed.
- A Gateway beautification project beginning at SR 49 and continuing to Columbia State Historic Park is needed.
- Columbia is one of two communities in the County that has a regional airport. The airport is an important resource of the community and its future needs to be addressed.

1.2 CCIP GOALS

The TCTC identified the following goals which guided the development of the CCIP:

- **Strengthen the economy**

The CCIP will strengthen the economies of Columbia by creating a plan to maintain and improve the community's infrastructure so that the area will be more attractive for economic development. In addition, the provision of sidewalks and bicycle lanes where they are missing will entice tourists to stop and visit the community. Making Columbia more enticing for travelers will enhance the economy of the area. The Plan will enhance connectivity of the community's greatest assets.

- **Promote infill development and social equity**

The CCIP will enhance social equity by creating adequate bicycle and pedestrian facilities, creating greater mobility for all segments of the population. A better transportation system will make infill development more likely by making the area attractive for economic development.

- **Protect the environment**

Tuolumne County has recently been designated non-attainment for the National 8-Hour Ozone Standard. To assist in reaching attainment for air quality, transportation facilities should be enhanced to encourage people to walk, bicycle or take transit.

- **Promote jobs and affordable housing balance**

The provision of transportation infrastructure that promotes all modes of travel is important to the implementation of affordable housing. An enhanced economy due to improved transportation will promote job growth in Columbia.

- **Link housing, transportation and land-use planning**

The CCIP will analyze the potential traffic demands created by the Tuolumne County General Plan. Using the County's updated traffic model, the study will determine the transportation needs of the community at projected build-out. The County has projected build-out data in terms of population, housing, land-use, employment and transportation. The plan will ensure adequate transportation facilities are planned and constructed by new development on a fair share basis.

1.3 CCIP RESULTS AND BENEFITS

The TCTC anticipates the following results and benefits to developing the CCIP:

- Identify context sensitive alternatives for eliminating the chokepoints and protecting the integrity of historic buildings adjacent to Parrotts Ferry Rd.
- Identify pedestrian and bicycle projects to link downtown Columbia with residential areas, Columbia College and Columbia Elementary.
- Develop a short-term transit capital improvement plan for Columbia.

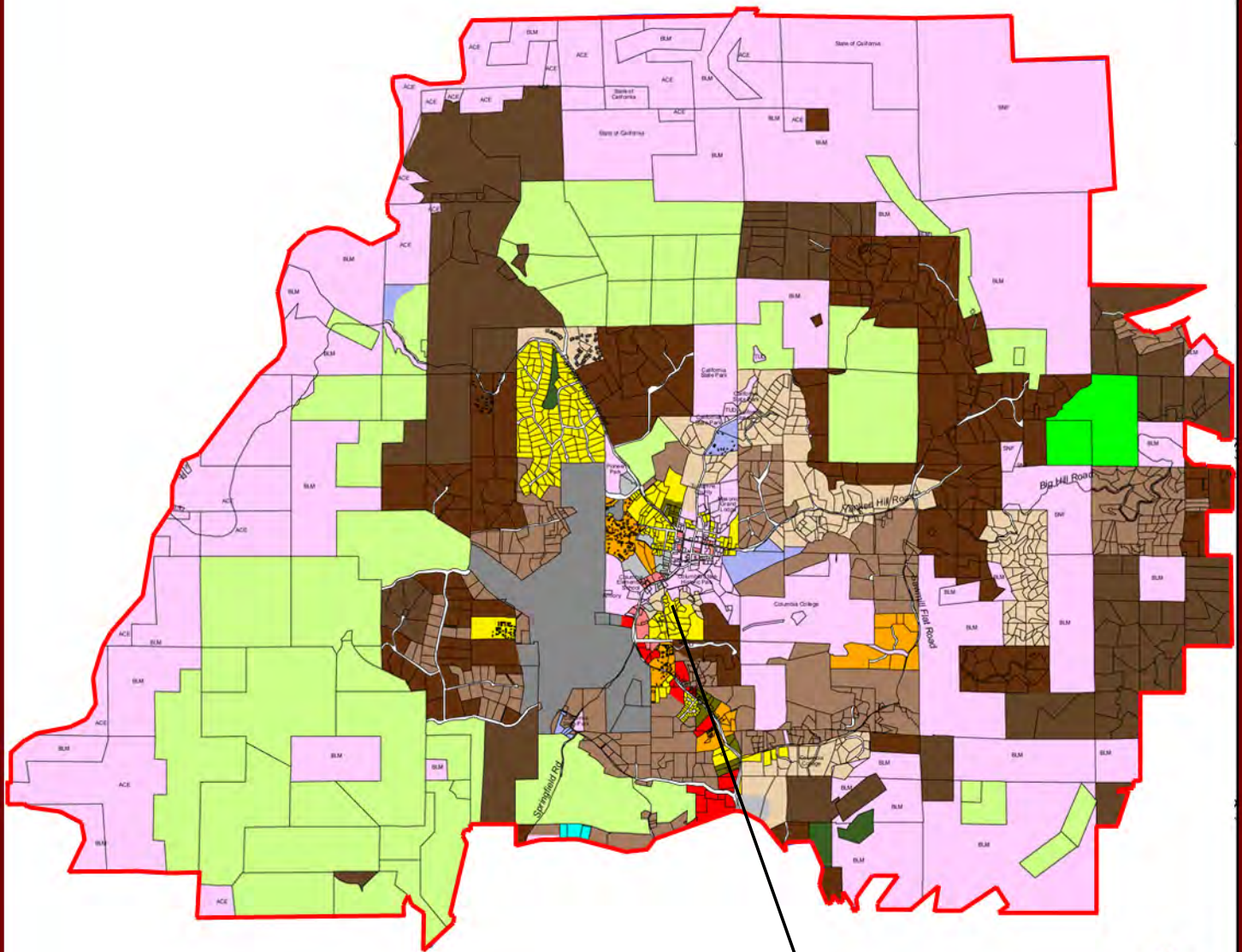
COLUMBIA CIRCULATION IMPROVEMENT PLAN

Introduction

May 2010

- Institute a financing plan to ensure the maintenance of existing and development of future transportation infrastructure.
- Provide a sustainable plan that makes Columbia a more attractive place for economic development and a more involved partner in the local community.
- Identify needed transportation projects that can be implemented with a financing strategy.
- Signify to community and motorists a sense of pride in community and history.
- Incorporate the Columbia Airport into community and regional horizon to ensure logical, consensual growth of the facility consistent with other planning efforts.

Columbia Planning Area



LEGEND

- STUDY AREA
- ROADS

COLUMBIA
COMMUNITY AREA



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Figure 2

CCIP Study Area Boundary

Columbia Circulation Improvement Plan Existing Conditions

2.0 Community Profile

Columbia is a rural foothill community in Tuolumne County, California. It is home to Columbia State Historic Park, Tuolumne County's general aviation airport, California Department of Forestry and Fire Protection's Air Tanker Base, Columbia College, Columbia Elementary, and many permanent residents and businesses. As part of the CCIP planning process, the defining characteristics of the community were documented to help form the framework for the development of transportation improvement recommendations. The Community Profile section of the CCIP summarizes these findings. The complete community analysis can be found in Appendix "A" (Technical Memorandum No. 1 – Existing Conditions Summary).

2.1 SPECIAL PLANNING ISSUES

Due to the uniqueness of the community of Columbia and its location, there are a number of peripheral planning issues which must also be considered. These include the Columbia State Historic Park, the Columbia Airport, Columbia Community College, Blue Mountain Minerals, Parrotts Ferry Road Bypass, Heritage Corridors, and the Tuolumne County Regional Blueprint Plan.

2.1.1 Columbia State Historic Park

The townsite of Columbia is an outstanding historic resource that provides economic benefits to the County by encouraging tourism in a manner that does not conflict with the existing quality of life. The significance of Columbia State Historic Park is that it is a living Gold Rush town; one that is able to demonstrate its own importance in the history of the California Gold Rush. As noted in the Resource Management Plan for the Park, State ownership of the land does not mean fencing-off or isolating the land from its surroundings. The Park is one with the Community and as such, it is important for the community to work towards creating an environment that is compatible with the Park. It is the Community's interest to aid in the preservation and vitality of the State Historic Park through the conservation of both the natural and cultural environments that surround the Park. It is the Community's desire to encourage not only commercial and residential needs, but also to balance those needs by providing for uses and designs compatible with the State Park.

2.1.2 Columbia Airport

Dedicated in 1935 as Ralph Field, Columbia Airport is one of the oldest operating airports in the State. The airport is an integral part of Columbia, and an essential component of Tuolumne County's transportation system as a general aviation facility. In addition, the airport provides a base of operations for local pilots as well as a popular flying destination. Since the early 1960s the airport has served as a fire attack base responsible for initial aerial attack on wildland fires.

2.1.3 Columbia Community College

Columbia College provides education and recreational opportunities for a variety of ages and interests within Tuolumne County. It is the interest of the Community to maintain the unique setting that surrounds the College, providing safe access for those attending the College.

2.1.4 Blue Mountain Minerals

Located on Marble Quarry Road in Columbia, Blue Mountain Minerals is the largest producer of limestone products in Northern California. Blue Mountain Minerals' massive deposits of limestone and dolomite produce a number of calcium carbonate and calcium-magnesium carbonate products for commercial and industrial products including agricultural limestone, environmental cleanup, construction and manufacturing, including glass and household products. As a local business in Columbia with a strong sense of community, Blue Mountain Minerals has contributed to many local and county organizations.

2.1.5 Parrotts Ferry Road Bypass

Parrotts Ferry Road is the main traffic route to the township of Columbia and also serves as a connection between State Route 49 in Tuolumne County and Route 4 in Calaveras County. As a result, commercial and industrial traffic patterns mix with local residential and recreational traffic often times resulting in conflict with pedestrian traffic in and around the Columbia State Historic Park and Columbia Elementary School. Since the adoption of the 1979 Columbia State Historic Park Resource Management Plan, a Parrotts Ferry Road Bypass has been discussed. The goal of the Bypass would be to reroute through traffic away from the Park and reduce the impact of motor vehicles on the park. The Community encourages creating a Bypass route to provide for the safety of visitors and residents of the Columbia community.

2.1.6 Heritage Corridors

Heritage corridors are defined as linear routes from which cultural resources may be viewed and interpreted. Corridors or portions of corridors which may be qualified for designation as heritage corridors include but are not limited to the following: examples of historic trade, water distribution or transportation routes, conveyance systems, or trails; corridors lined with visible cultural resources; corridors which pass through historic or design review districts; and corridors representative of a major period in Tuolumne County history or California history.

2.1.7 Tuolumne County Regional Blueprint Program

The TCTC is participating in a regional transportation and land use planning program which is being encouraged by the State of California to better forecast and predict the locations of growth and the resulting demands for transportation improvements. Termed "Blueprint Planning", the TCTC has embarked on an effort to use models which forecast the likely locations of new development and to then project where certain types of residential, commercial and industrial development are likely to take place. By projecting the locations of new development and using the Blueprint process, the County can better assess the level of transportation improvements

needed to serve various growth and development scenarios in the diverse communities throughout Tuolumne County.

2.2 GOVERNMENT STRUCTURE

2.2.1 Tuolumne County Transportation Council

The Tuolumne County Transportation Council (TCTC) was created to act as the lead planning agency for transportation projects and programs in Tuolumne County. It is the expectation that the efforts of City, County and State elected officials and their technical staff, coordinated by the TCTC, will bring about positive improvements to the overall County transportation network. The TCTC is responsible for developing a transportation plan that reflects the needs, concerns, and actions of all the agencies involved in the region. The purpose of the planning process is to identify and develop transportation improvements that meet the region's mobility needs, contribute to the economic health of the region, and preserve the environmental quality of the region. The TCTC, under the guidance of the County's Board of Supervisors, also manages and operates the County's public transit services under the title of Tuolumne County Transit. This transit entity provides fixed-route service between Sonora, Jamestown, Columbia, Twain Harte and Sierra Village, with Buses operating Monday thru Friday between 6:00 a.m. and 9:00 p.m. Tuolumne County Transit also provides Saturday service between the hours of 9:00 a.m. and 4:00 p.m. to the general public within Sonora, Jamestown, Columbia, Twain Harte, Soulsbyville and Standard areas. Saturday Service is provided through a curb-to-curb Dial-A-Ride service, requiring advance reservations. Special transit services are also offered by Tuolumne County Transit via a dial-a-ride program for persons with special needs and for the general public within certain areas.

2.2.2 Columbia Area Planning Commission

The Columbia Area Planning Commission was created by the Tuolumne County Board of Supervisors in June 1990 through the adoption of Ordinance 1771. The Columbia Area Planning Commission consists of residents within the boundaries of the Columbia Community Plan who are charged with overseeing the implementation of the Columbia Community Plan and guiding the community of Columbia in meeting the goals for the future. The Commission also reviews and acts on applications for Design Review Permits for projects located within the Design Review boundaries of the historic Columbia area.

2.2.3 Columbia Area Advisory Council

The Columbia Area Advisory Council was formed approximately 15 years ago via a legislative authorization from the California State Legislature. The Council has 11 members representing several different community and county organizations, including the State Park, the Columbia Airport, the Columbia Fire Department, the Columbia Area Planning Commission and several community members at large. The general purpose of the Advisory Council is to provide representation for the community of Columbia in its interaction with the State Department of Parks & Recreation in its operations and management of the Columbia State Park and surrounding areas. The Columbia Area Advisory Council provides recommendations directly to

the State Department of Parks & Recreation, local state representatives, and to the Tuolumne County Board of Supervisors.

2.2.4 Columbia Chamber of Commerce

The Columbia Chamber of Commerce is composed of members of Columbia area businesses and provides a variety of services and assistance to the business community in Columbia. The Columbia Chamber also provides information services to the general public regarding events and types of business that are located in the State Park and the community. The Chamber provides a variety of specialized assistance for the business community including advertising, support for the State Park, and providing a unified voice for communications with State Park officials and the County.

2.2.5 Historic Preservation Review Commission

The Historic Preservation Review Commission is comprised of nine community members having a demonstrated interest, expertise, or knowledge in historic preservation. Commissioners are appointed by the Board of Supervisors for a three year term. Some of the Commission's duties include providing technical expertise to County staff concerning historic preservation issues, reviewing development projects affecting historic properties or districts and county-owned properties, and nominations of historic structures or features to local, state, and national historic registers.

2.2.6 Airport Land Use Commission

The Airport Land Use Commission is responsible for reviewing land use proposals on and near two general aviation airports in Tuolumne County: Columbia Airport and Pine Mountain Lake Airport. The criteria and affected areas in proximity to the airports are defined in the Tuolumne County Airport Land Use Compatibility Plan, which was approved in 2003. The goal of the Plan is to promote compatibility between the public-use airports within Tuolumne County and the land uses which surround them. The Airport Land Use Compatibility Plan serves as the primary tool for use by the Tuolumne County Airport Land Use Commission in its review of land development proposals at County airports and on surrounding land. The Airport Land Use Compatibility Plan contains policies regarding noise, safety, airspace protection and aircraft over-flights which apply primarily to property located within the airport influence area boundaries associated with the two County public-use airports.

2.2.7 CCIP Stakeholders

A CCIP Steering Committee is providing oversight for the Columbia Community Plan. The Steering Committee is made up of community members who are actively involved in transportation projects and interested parties who have a vested interest in circulation and transportation planning through past County Planning efforts. The Committee is composed of members of the Tuolumne County Board of Supervisors, the Tuolumne County Planning Department, Tuolumne County Public Works, Caltrans, Columbia State Park representatives, the Columbia Fire District, Columbia Airport representatives, the City of Sonora Planning

Commission and the Columbia Advisory Planning Commission. This group consists of community organizations and/or agencies who believe they are impacting transportation planning in Columbia. Additional stakeholders and community organizations that have expressed either an interest or concern about the Columbia Circulation Improvement Plan will be identified after the first CCIP Workshop. These stakeholders will include, but are not limited to: bicycle advocates; environmental groups; historical groups; disabled advisory committees; additional Columbia Park shop owners; community advisory councils and other organizations or individuals.

2.3 POPULATION AND DEMOGRAPHICS

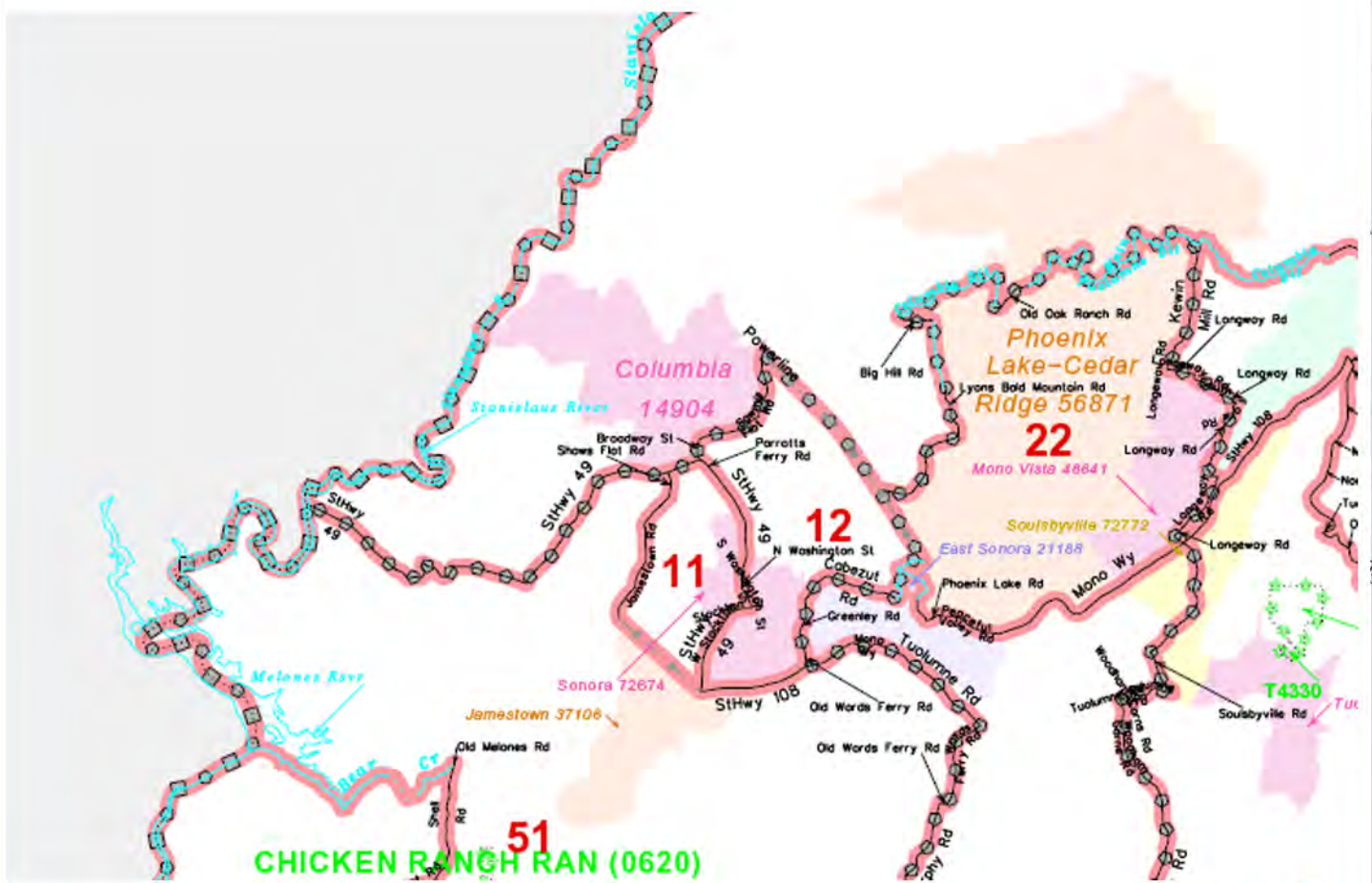
The 2000 US Census reported the population of Columbia Census District to be 2,405 individuals, up from 1,799 in 1990. Columbia is an “older” community, with only 20.2% of the population under the age of 18 and with a full 22.9% of the population over the age of 65. Of those surveyed by the Census, 94.9% identified themselves as white (90.1% as white alone). 6.9% were recorded as Hispanic or Latino, 2% identified themselves as Asian alone or in combination and 1% identified themselves as black. More than a quarter of residents (25.5%) have a disability, and 1,021 residents (51.6%) are in the labor force (compared to Tuolumne County's 49.5% of residents in the labor force). Residents have a lower average income than the rest of Tuolumne County, with per capita income at \$18,731, as compared to a per capita income of \$21,015 for the County as a whole. (See Figure 2a: Columbia Area Census Tracts).

As a part of the Tuolumne County Regional Blueprint Planning Process, the TCTC has prepared updated population and housing unit projections for Tuolumne County which has been divided into 8 different analysis zones, termed Traffic Analysis Zones (TAZ). As part of the population and housing unit projections made by the TCTC for each TAZ, factors such as type of land use under the General Plan and zoning, estimates for build out capacities under existing and likely service areas and capacities for public utilities and other factors were considered. Figure 2b: Traffic Area Zones - Housing Unit Projections displays the Columbia area in contrast to other TAZ areas in the County. In general, the existing and projected growth in Columbia at the baseline year of 2002 is about in the middle of the TAZ projections, with 4 having lower existing housing unit counts (ranging from a low of 464 units in the Don Pedro area to Columbia's 1,384 units) and 4 having higher unit counts (ranging from Columbia's 1,384 units to 5,073 units in the east Sonora area). For projected growth to 2025, Columbia's growth remains in the median of the TAZ areas, with 4 areas below Columbia's 2025 housing counts and 4 other TAZ areas having greater housing numbers.

2.4 LAND USE

The Tuolumne County General Plan has primary jurisdiction over land use and other land use policy regulatory decisions for Columbia. Land uses are designated in the General Plan as follows: traveling north along Parrotts Ferry Road from the intersection of State Route 49 and Parrotts Ferry Road, an alternating pattern of land uses including general commercial, low-, medium- and high-density residential, and small portions of neighborhood commercial development border the road, except on the eastern side at the most southern portion, where mixed use dominates. Homestead residential lies further to the east and west, and a business park is encountered adjacent to Parrotts Ferry Road as one approaches the airport. Most of the downtown is designated “public”, except for small areas designated neighborhood commercial. Mixed-use is present further to the north, and the small residential area to the west of downtown is designated as high-density residential. See Figure 3: Land Use Map for a map of land uses within the CCIP study area.

Although the variety of land uses is good for encouraging walking, biking, and other non-vehicular transportation modes, most can be accessed only by car, due to the lack of facilities. Walking or biking is further hindered by the low densities encountered. Infill development and more pedestrian- and bike-friendly infrastructure could significantly improve non-vehicular circulation in the community.



ABBREVIATED LEGEND

SYMBOL	NAME STYLE
*****	INTERNATIONAL
*****	AIR (FEDERAL)
*****	Trust Land
*****	OTSA / TDSA
*****	TRIBAL SUBDIVISION
*****	AIR (State)
*****	SDAISA
////	STATE
	COUNTY
	CENSUS COUNTY DIV.
	Consolidated City
	Incorporated Place
	Census Designated Place
	Census Tract

Abbreviation Reference: AIR = American Indian Reservation; Trust Land = Off-Reservation Trust Land; OTSA = Oklahoma Tribal Statistical Area; TDSA = Tribal Designated Statistical Area; Tribal Subdivision = American Indian Tribal Subdivision; SDAISA = State Designated American Indian Statistical Area

FEATURES

AS Roads

Highway

Play/Paved Line

Private Property

Nonpublic Boundary

Military

FEATURES

Stream/Thereline

Intermittent Stream

River / Lake

Glacier

Inset

Out Area



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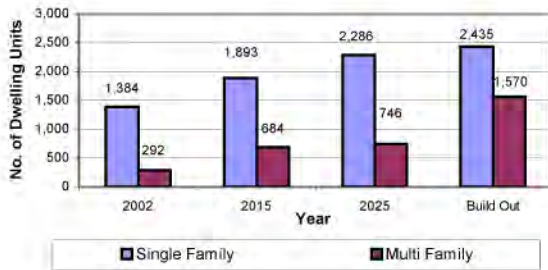
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Map By: U.S. Department of Commerce | Transportation Department

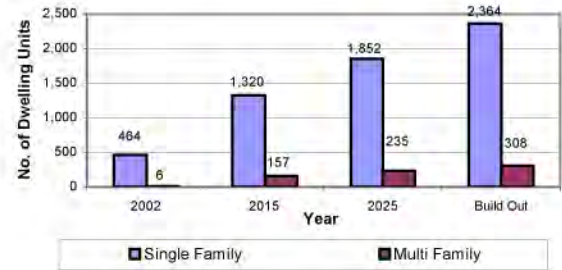
Figure 2a
Columbia Area Census Tracts

Columbia Circulation Improvement Plan Existing Conditions

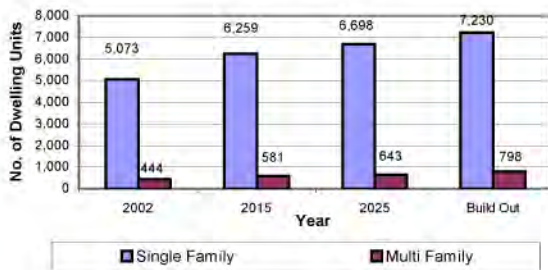
Columbia Area



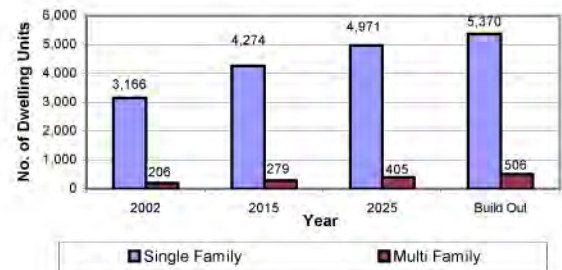
Don Pedro Area



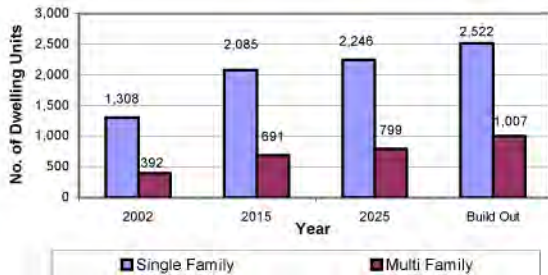
East Sonora Area



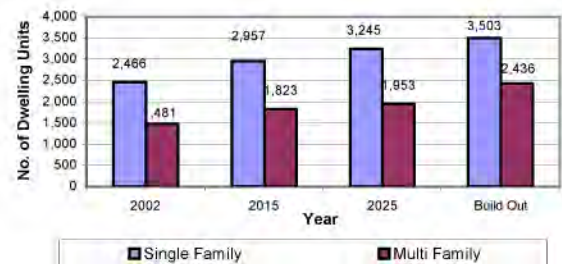
Groveland Area



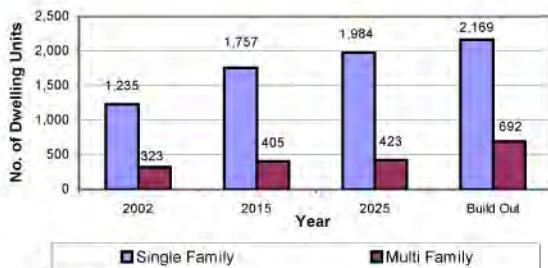
Jamestown Area



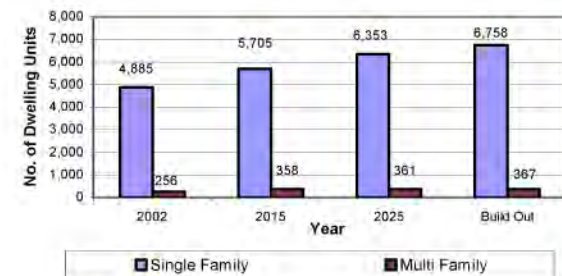
Sonora Area (Including City)



Tuolumne Area



Twain Harte Area



Source: TCRT Plan & Traffic Model Update Working Paper 3a | Transportation Department

Figure 2b
Traffic Area Zones - Housing Unit Projections

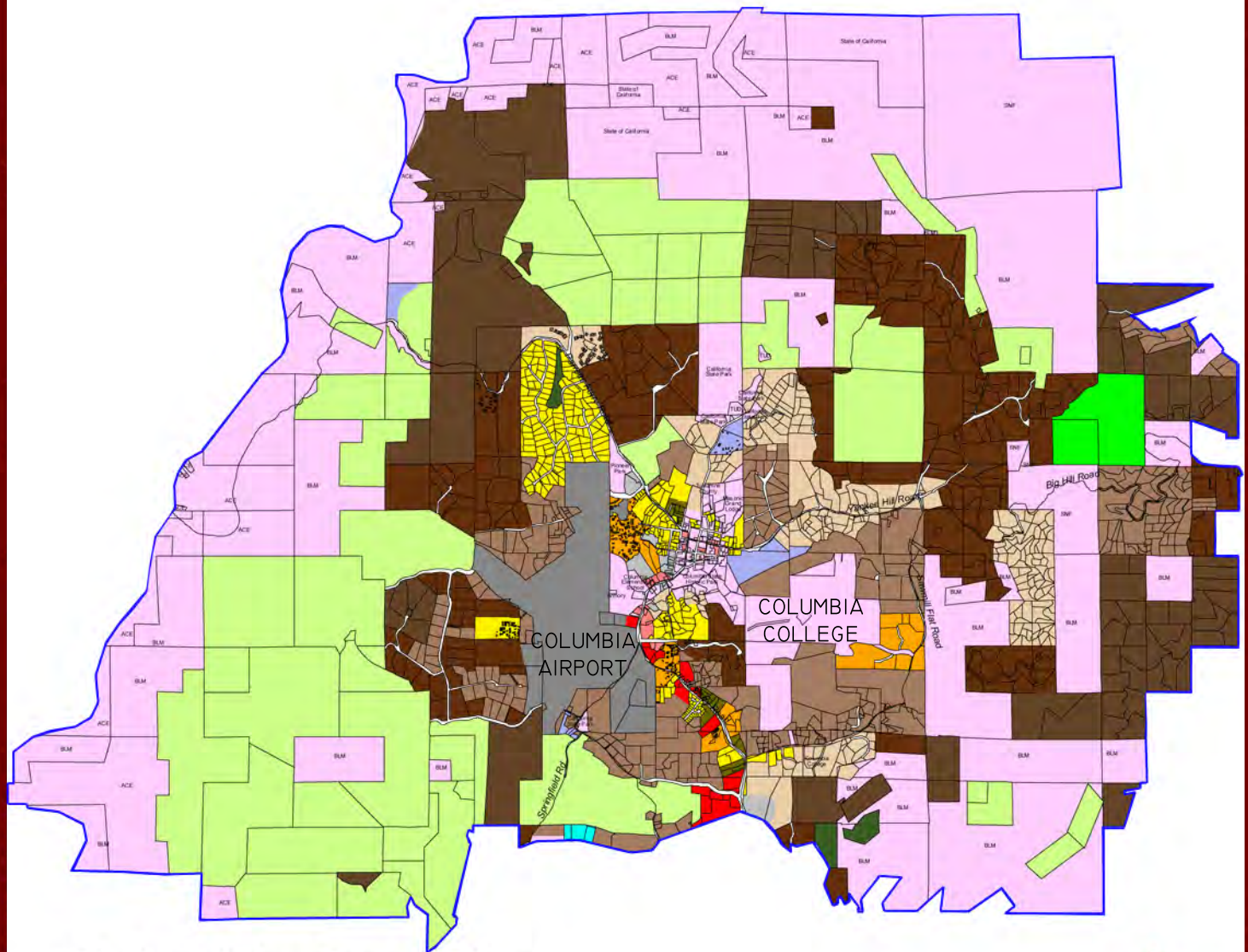
Columbia Circulation Improvement Plan Existing Conditions



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Columbia Area Plan



LEGEND

	Major Road Network		Special Commercial		Rural Residential
	State Highway		General Commercial		Large Lot Residential
	Parcel Boundary		Heavy Commercial		Public
	Area Plan Boundary		Neighborhood Commercial		Open Space
General Plan Classifications			High Density Residential		Agricultural
	Heavy Industrial		Medium Density Residential		Parks and Recreation
	Light Industrial		Low Density Residential		Timber Production
	Business Park		Estate Residential		Mineral Preserve
	Mixed Use		Homestead Residential		



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| Transportation Department

Figure 3

Land Use Map

Columbia Circulation Improvement Plan Existing Conditions

2.5 DESTINATIONS

Destinations include high use areas that are frequented by both residents and tourists. These areas include high-density residential areas, the Columbia State Historic Park, the old schoolhouse, Columbia College, Columbia Elementary School, Columbia Airport, lodgings (hotels and motels), RV parks, trail heads, office locations, restaurants, and shopping destinations (including shops and restaurants along Parrotts Ferry Road like Waterwheel Court and the proposed “Crossings” project (which has yet to be built). The swimming pool at Columbia Elementary School receives heavy use by the community and youth in Columbia during the summer months and is considered to be a significant local destination in Columbia during the summer season. Areas of historical significance such as abandoned mines and past hydraulic mining areas can be incorporated into the town's features and connected along bike trails and hiking trails.

Because many of these destinations are dispersed throughout the town (especially those along Parrotts Ferry Road), and pedestrian/bicycle facilities are lacking, walking is less practical. The current lack of safe facilities discourages walking or bicycling, and without improvement, will ensure that the car remains the dominant form of transportation in Columbia. Linking these destinations with a system of safe, accessible, and contiguous non-vehicular transportation facilities will significantly enhance transportation options in Columbia.

2.6 TOPOGRAPHY

The hilly topography of Columbia has dictated the placement of residences, shops, and transportation infrastructure. The airport takes up a majority of flat land (at around 2,100 feet elevation), followed by the historic park (at around 2,150 feet elevation). Parrotts Ferry Road curves around Kennebec Hill, which together with other topographic geologic features and the airport prescribes a long, north-south orientation to Columbia. The slopes on Columbia range from almost 0% in some areas to around 40% in others. A grid pattern is present in the historic park, but the topography of the rest of the community results in streets branching out, following contours of hillsides. This forces cars, bicycles, and pedestrians to follow these contours, instead of taking more direct routes from origin to destination, which typical grid patterns allow.

2.7 GEOLOGY

The geology of Tuolumne County is typical of the geomorphology of the western Sierra Nevada foothills where many different rock units composed of granitic and metasedimentary material have been exposed through faulting and weathering. Similar to the other counties along the western slope of the Sierras, Tuolumne County contains deposits of chromite, copper, soapstone, scheelite, and slate. Magnesite has been produced and other metallic and nonmetallic minerals have been mined in small quantities. Tuolumne County owes its early reputation as a gold-producer to the placer deposits of Columbia and Springfield, where \$55,000,000 in gold was mined from shallow deposits in potholes and crevices in the limestone bedrock prior to 1899. Next to gold, one of the most important mineral resources has been the production of high quality marble from quarries near Columbia. The Columbia marble beds have a long history of production. The marblebeds extend from the vicinity of Murphy in

Calaveras County southward through Columbia and Sonora and are up to 2 miles wide north of Columbia. The quarry location currently operated by the Portola Minerals Company is located several miles northwest of Columbia near the Stanislaus River. The quarry operated by the Portola Minerals Company at this location is locally called the Blue Mountain and/or Columbia Quarry; Portola Minerals Company has merged both these adjacent quarries.

2.8 HISTORICAL CHARACTER

The foothill community of Columbia includes a wealth of historic artifacts and structures, especially in the downtown area, which is included in the Columbia State Historic Park. Buildings from the 1850s are utilized as stores and exhibits, imparting a Gold Rush-era ambience to the community. Abandoned mines and the remnants of hydraulic mining activities are present in Columbia, providing an example of how nineteenth century gold mining operations impacted the land. However, in many areas, modern design elements are found in Columbia and may, at times, negatively impact the historic “period” atmosphere which most residents desire to preserve. Incompatible elements include cars, parking lots, asphalt paved streets, and modern buildings.

Almost all of the roads in Columbia are presently paved with asphalt. Little landscaping with historically correct species is found to screen off parking lots or provide shade. Power lines are aligned north along Parrotts Ferry Road from the Pedro Wye. The power lines are clearly out of character with a period in California history before the commercialization of electricity. Many of the homes in Columbia are built in a more modern style, as are mobile home estates along Parrotts Ferry Road. Vegetative screening is one option that could be used to preserve the historic atmosphere of the town.

Traveling northward from the Pedro Wye, visitors are given no indication of the historic community they are about to visit or pass through. The Pedro Wye itself is large yet barren, with power poles clearly visible throughout the intersection. No landscaping, historic artifacts or other amenities are present. This could be enhanced as a gateway to set the visitors’ first impressions of the Columbia community.

2.9 ORDERING AND COMMUNITY STRUCTURE

A sense of orientation can be given to residents and tourists traveling by car, bicycle, or foot by wide, straight, long, or focused streets. The same can be accomplished by using a regular pattern throughout the community (such as a grid pattern). Parrotts Ferry Road provides the sense of orientation in Columbia, together with the small grid pattern in the historic downtown core. Parrotts Ferry Road is the transportation backbone of Columbia. The downtown core, with its grid patterns and historic attractions provide a sense of place and a feeling of being the “ultimate destination” in the community.

Because everything outside of the downtown core was developed in response to topography, the road network in Columbia is generally inefficient for use in bicycle or walking transportation. A common understanding is that a pedestrian or bicyclist will generally try to find a road that is aligned as much to a straight line which is the shortest route possible. Compared to other cities' grid networks, there are few intersections along a given length of road in Columbia, which results in few opportunities for a walker or biker to travel in a straight line to their destination. This means that a journey between points 1 mile apart may actually take 1.5 miles or more of walking, following circuitous existing rights-of-way due to the alignment of roads in the community. Orienting future more intensive use developments along straight paths, such as certain sections of Parrotts Ferry Road, within a short distance to other high-use areas (and with accompanying pedestrian or bicycle infrastructure providing connectivity) will alleviate this problem.

Community gateways and community identity monumentation are widely regarded as providing a valuable component for enhancing the "sense of place" in a community for residents and visitors. Similar to other mother lode communities which have been developed over a number of decades, Columbia has a relatively extensive area of residential and commercial development spread over a fairly large area. The challenge that the CCIP will seek to address is where community gateways could be located in order to provide the sense of place and arrival that is sought in Columbia.

Cul-de-sacs, or dead-end roads, are a barrier to pedestrian and neighborhood connectivity. In general, cul-de-sacs are discouraged in new development since they prevent neighborhood connectivity by eliminating the opportunities for through streets and development of a grid based street network. In Tuolumne County's Ordinance Code, specifically Title 11 provides standards and requirements for street design and construction; these include street standards for cul-de-sacs. Though most streets in Columbia do not end in cul-de-sacs, the number of cul-de-sacs and short dead-end roads does present a barrier to non-vehicular transportation and connectivity in many cases.

2.10 STREET DEFINITION

There are two dimensions to street definition: vertical and horizontal. The vertical element includes the height of buildings and trees along the side of the street. The horizontal element includes the width of the street and how long it stretches out in front and behind before turning. These two elements define the boundaries of a street, communicating clearly where the edges of the street are and what sets the street apart from the surrounding land. These two elements give the street its sense of place. Typically, a wider street requires higher buildings or trees to define the space.

Distances are key indicators of space. The scale on which a street is built is important in making the street interesting and inviting to pedestrians. The human scale is the comfortable distance in which one can recognize a person, while intimate human scale is the distance at which facial expressions can be perceived. Streets are more "comfortable" when designed within these scales. Combining a human scale with an appropriate vertical element will define streets and make them 'feel right' to pedestrians.

2.11 STREET BOUNDARIES

Parrotts Ferry Road does not have clear street boundaries. Though the asphalt has a clear shoulder, the street space is not well defined with respect to the horizontal and vertical elements. Vegetation and trees are inconsistent along Parrotts Ferry Road, with different setbacks and densities along the road. In many places, vegetation is absent. Though the street is not too wide to be comfortable for pedestrians, there is no specific sidewalk, trail, or path along much of it (and many other streets in Columbia) to walk or bike safely. In many instances, a small shoulder will suddenly narrow to the point of being almost non-existent. In some cases private property has no setback from the road, with fencing forcing potential pedestrians or bicyclists into lanes of traffic.

2.12 PEDESTRIAN-FRIENDLY DESIGN CONSIDERATIONS

A pedestrian walking along the side of a street can comfortably turn her or his head 30 degrees in each direction. The streetscape seen by the pedestrian will feel well-defined if the vertical heights of structures or features to its horizontal width is a ratio of 1:4 or lower. A ratio of 1:2 will provide a strong sense of definition. Although Parrotts Ferry Road does not have excessively long views, single story buildings with expanses of parking in front do not provide the vertical heights necessary along much of the street to meet this 1:4 ratio.

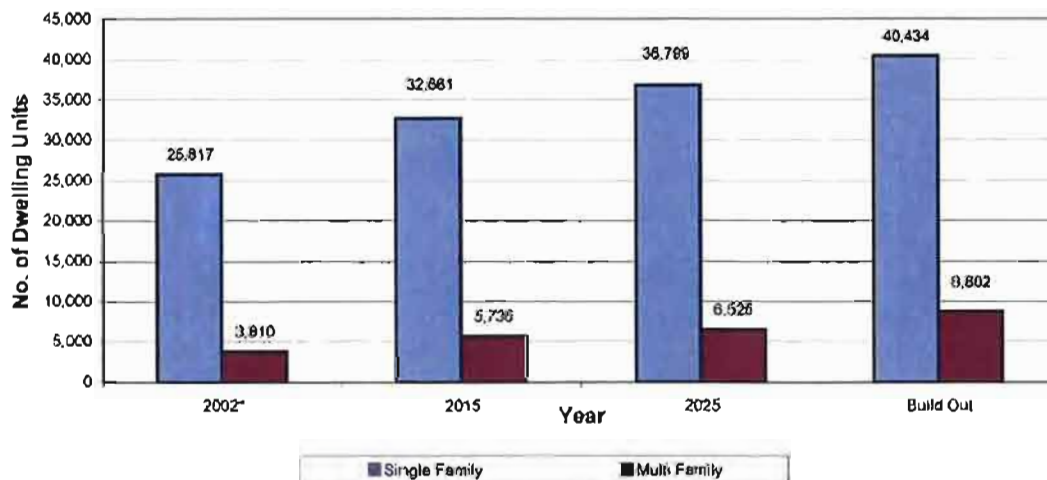
Without well-defined pedestrian paths or bike routes, the pedestrian will then not feel safe walking along the road. Additionally, wide open expanses of road make drivers feel safe, often resulting in increased speeds which create unsafe conditions for pedestrians. Narrowing the travel lanes, perhaps by providing parking along the street in places, implementing certain traffic calming measures, and providing separated pedestrian and bicycle paths or trails where possible, will enhance the pedestrian experience, slow drivers down, and create a more balanced range of transportation options for Columbia.

An important consideration in the design of pedestrian friendly street environments is creating a sense of well-being and safety for walkers, joggers and bicyclists. In more developed areas, the implementation of a street lighting program can greatly assist in providing a heightened sense of safety and security. In the core area of Columbia and in some of the surrounding residential and commercial areas, providing adequate street lighting which is sensitively designed will enhance the community as well as assist in getting residents and visitors out of their cars to walk and bike in the community more (see Figure 4: Population Growth in Tuolumne County).

Population Growth in Tuolumne County

Year	Population	Change from Preceding Record Year	
		No. Of Persons	% Average Annual Growth
1930	9,271	N/A	
1940	10,887	1,616	1.7
1950	12,584	1,697	2
1960	14,404	1,820	0.2
1970	22,169	7,765	5.3
1980	33,928	11,759	5.3
1990	48,456	14,528	4.3
1993	52,700	4,244	2.9
2002	55,755	3,055	0.6
2015	72,800	18,299	1.8
2025	81,629	8,829	1.1
2040	130,100	48,471	2

Countywide Residential Growth



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Population Growth in Tuolumne County

Columbia Circulation Improvement Plan Existing Conditions

Cartographic Design By: K. Langford | Transportation Department

Figure 4

2.13 SCALE: COMPLEXITY AND TIME-DISTANCE

The interplay of human activity with the physical place has an enormous amount to do with the perception of “greatness” of a street. Urban designers and planner have developed several objective “yardsticks” with which various urban spaces can be evaluated to determine if they have the quality we generally desire to experience in our communities.

Older developments, built before the mass production of the automobile, typically have a smaller, more intimate scale and a more complex pattern of streets and blocks. As the car came to dominate transportation, newer developments became simpler and larger, with larger block sizes, which decreased density and walkability. The amount of development in the Columbia State Historic Park rivals that of the rest of Columbia, although it takes up a small fraction of the overall space. The Park is walkable and provides character to the community. A visitor can intimately experience a large portion of Columbia by walking around the Park for a few hours.

Areas with high densities, with more activities and services within a given area, also tend to have more streets (though not necessarily more area covered by streets) and a greater variety of places and spaces for people to enjoy. A compact scale and greater number of intersections per square mile typically creates a more walkable community. Having many intersections at short intervals also slows down automotive traffic, making alternatives, like walking, safer. Though the historic downtown core of Columbia is set up to be walkable, the rest of Columbia has topographically-limited, car-oriented development patterns. Implementation of infill development and infrastructure improvements create higher densities, which will encourage greater livability. Figure 6 compares distances and walking times between intersections within the historic center of town. The walking times assume an average walking speed of 4.3 feet per second.

2.14 EXISTING ROADWAY NETWORK

The basic road network in the CCIP study area was developed to serve the community that developed around the Gold Rush era. The basic street and highway network in Tuolumne County is comprised of a combination of approximately 139 miles of State Highways, 600 miles of maintained County Roads and 26 miles of maintained City streets. There are approximately 26 miles of roadways within the Columbia Circulation Improvement Plan Study Area. Roadways within the community of Columbia are primarily two-lane roads of varying widths. State Route 108 is the primary Highway route which connects Columbia to the other regions in Tuolumne County and beyond. The CCIP Area is served by one County Route, Parrotts Ferry Road (County Route Parrotts Ferry Road). This route provides a connection to State Route 4 to the north and merges with State Route 49 to the south. This intersection is called the “Pedro Wye”. Route 49 connects with State Routes 108, 120, and Highway 140 before terminating at State Route 41. State Routes 4, 49 and particularly Route 108 are the primary routes connecting Columbia with the rest of the state.

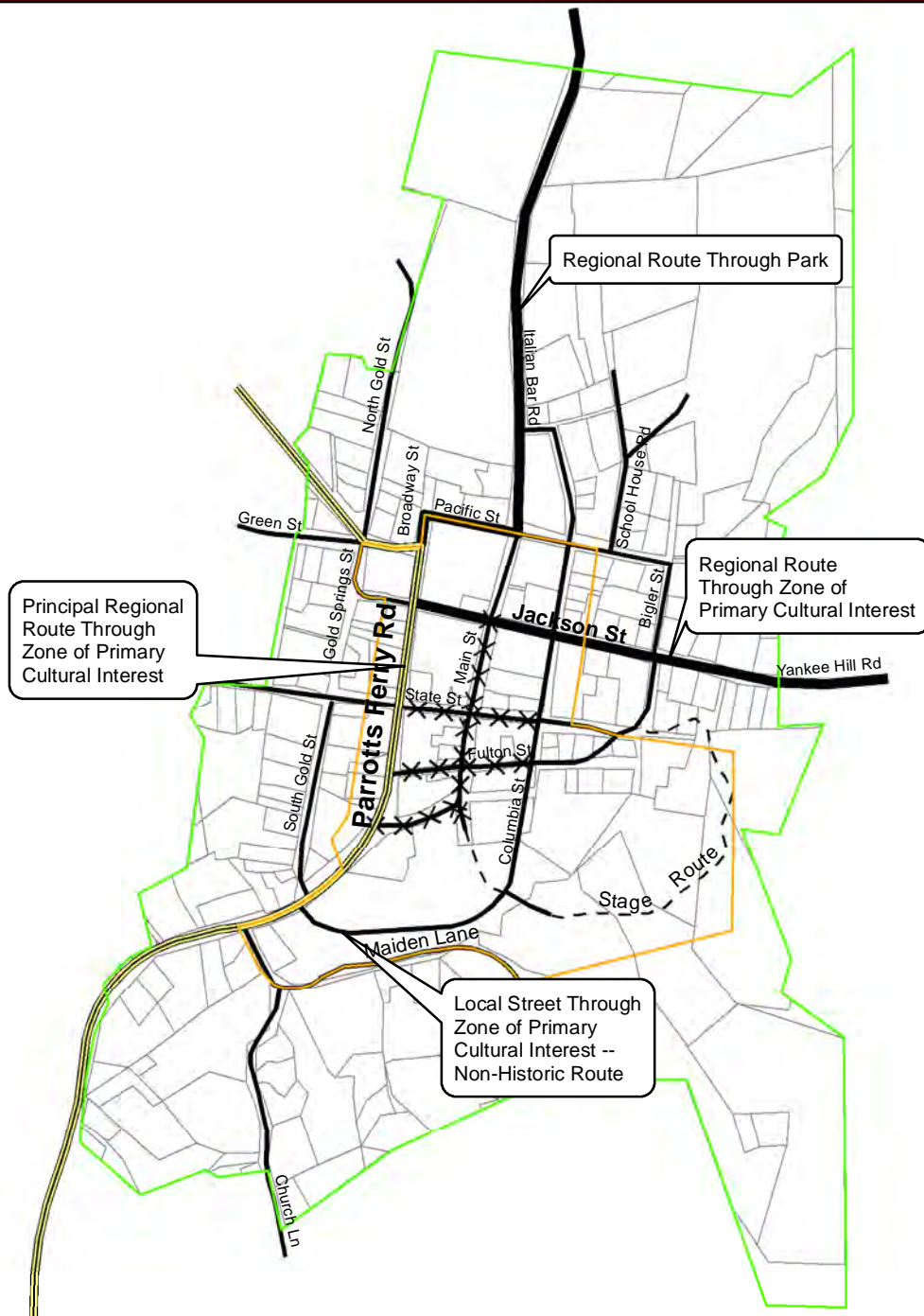
The CCIP Planning Area is the same as the planning boundary for Columbia Community Plan. However, the primary area of focus is located along Parrotts Ferry Road from the Pedro Wye (where it intersects with State Route 49) to north of North Airport Road, encompassing a rectangular area that includes Columbia College to the east and Columbia Elementary School to the west. The CCIP focus area also includes most of Airport Road, including the airport itself. Parrotts Ferry Road is a two-lane north/south major rural collector. Minor rural collector routes include Springfield Rd, Shaws Flat Rd, Sawmill Flat Rd, Jackson St/Yankee Hill Rd, and Big Hill Rd. All other roads within the CCIP, including those in the historic area, are classified as rural local roads (see Figure 5: Existing Circulation Network).

The majority of roads within Columbia, including those in the historic core of the town, are paved with asphalt. Modern asphalt pavement generally detracts from the authenticity of nineteenth century structures. Resurfacing these roads with period surfacing or more stable paving products, which give the appearance of period paving could substantially improve the character of the historic district.

All roads within the CCIP area currently lack adequate pedestrian and bicycle facilities for tourists and residents. Most high-use areas are surrounded by asphalt pavements, and what little sidewalk is present, ends abruptly into marginally walkable, and sometimes unsafe, paths. Some sections of Parrott's Ferry Road are planned for having their utilities under-grounded. While under-grounding utilities significantly enhances the visual quality of a roadway corridor, the easement where the utilities are buried, usually adjacent to the street pavement, can create problems for the construction of pedestrian and bicycle paths by preventing the use of certain types of paving and restrictions on installation of landscaping and other elements.









The Portola Minerals Company (dba Blue Mountain Minerals), as a part of their 2003 application to Tuolumne County for a revised Reclamation Plan, generally agreed in the project's EIR that a certain amount of impact to the areas roadways occurred due to the truck traffic hauling limestone product from the quarry to market. In both the project's Mitigation Monitoring Plan as well as a specific agreement between the County and Portola Minerals Company, a road fee program is described where the Portola Minerals Company contributes a certain fee to the County for road maintenance. The purpose of this fee is to compensate the County and its taxpayers for the impacts created by the trucks and to provide a pro rata share of funding for road maintenance.

Obstructions, such as telephone or power poles, make bike travel potentially hazardous along Parrotts Ferry Road. With the exception of small portions in the historic part of Columbia, where sidewalks are provided, they are not separated from the roadways by landscaping or other boundaries. Furthermore, segments of sidewalk outside of the historic portion of Columbia are modern in construction and design, and not well-suited to the historic character of the town. Trails exist throughout the town, whether formal or informal, but lack connectivity. Many could use improvement in alignment, design, public access dedication and grade.



0 0.125 0.25 0.5 Miles

Legend

	Zone of Primary Cultural Interest	Existing Circulation		Local Streets	
	Approved Ultimate Park Boundary		Principal Regional Route		Local Streets - Summer Closure
	Parcels		Secondary Regional Route		Interpretive Trails



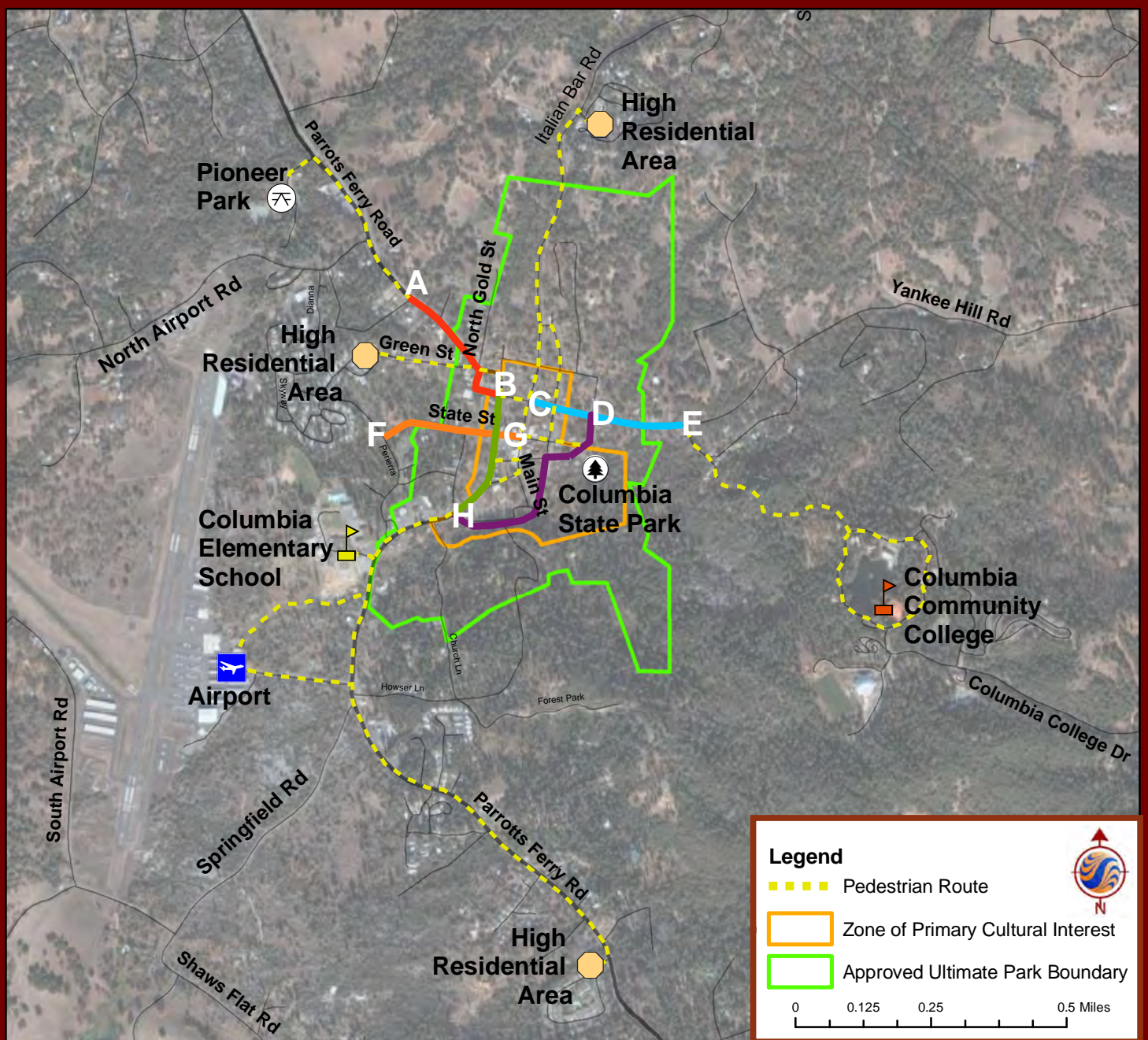
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Figure 5
Existing Circulation Map:
Columbia State Historic Park
Columbia Circulation Improvement Plan Existing Conditions



Stations	Intersection Within the Historic Downtown	Distance to Intersection (linear feet)	Time to Walk Between Intersections (minutes)
A-B	Skyway @ Parrots Ferry - Yankee Hill @ Broadway Street	1,371	5.26
B-H	Yankee Hill @ Broadway Street - Broadway Street @ Columbia Street	1,289	4.94
C-E	Yankee Hill @ Main Street - Yankee Hill @ Jackson Street	1,564	6.00
D-H	Yankee Hill @ Bigler Street - Broadway Street @ Columbia Street	1,991	7.64
F-G	Loop Lane @ State Street - State Street @ Main Street	1,457	5.59



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Figure 6

Existing Facilities & Walking Routes

Columbia Circulation Improvement Plan Existing Conditions

2.14.1 Roadway Classification System

There are three known roadway classification systems that have been identified for the Columbia Improvement Plan study area which include: 1) Tuolumne County 06/07 Regional Transportation Plan, 2) Tuolumne County General Plan Circulation Element, and 3) Columbia State Historic Park General Development Plan. Figure 7: Regional Transportation Plan (RTP) Roadway Classifications shows the roadway classifications for the purposes of the CCIP.

2.14.1.1 Tuolumne County Regional Transportation Plan

All State Routes in Tuolumne County are classified as either Rural Arterial (RA) or Rural Minor Arterial (RMA). All other roads are classified as Rural Collector (RC), Rural Local Road (RLR) or Scenic Route. The description of each classification or roadway used by the County is summarized below.

Rural Arterials

Rural arterials constitute routes whose design provides for high overall travel speeds with minimum interference to through movement. These routes serve long distance movements indicative of statewide or interstate travel. Rural arterials provide an integrated network that connects communities, regions and other cities.

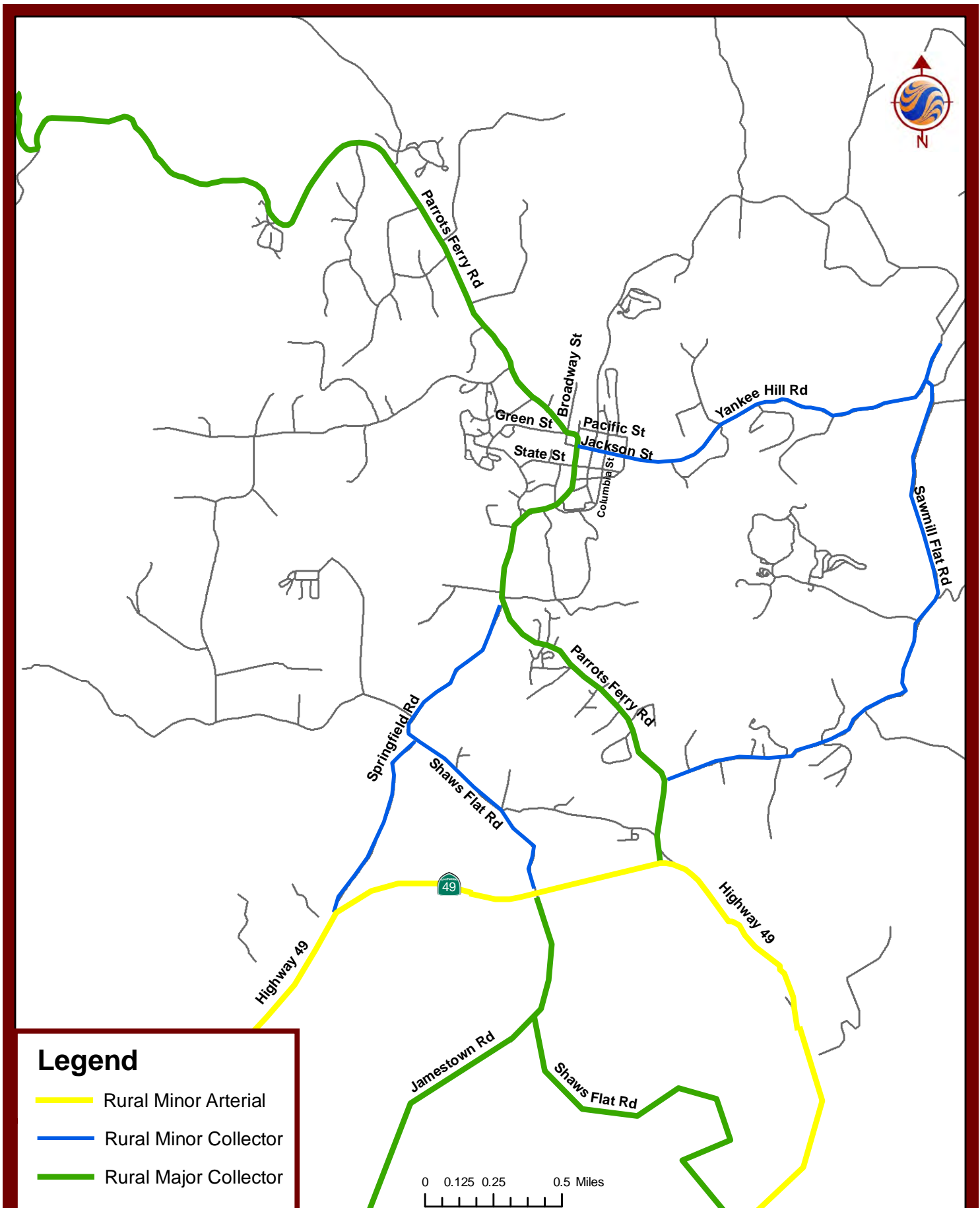
Rural Minor Arterials - The RMA system forms a network of linked cities, larger towns and other traffic generators, such as resort areas and/or recreational attractions. The only RMA in the CCIP study area is State Route 49 which represents the study area's southernmost boundary.

Rural Collectors

Rural Collector routes provide service between local roads and the arterial system within the County. These roads are primarily important for intra-county travel and are sub-classified as either a Major Collector or Minor Collector.

Rural Major Collector - Major Collectors provide service to larger towns not directly served by the arterial system and to the other traffic generators of equivalent intra-county importance such as major recreational areas, schools, airports, and commercial activity centers. Additionally, they link these locations with nearby larger towns or cities and/or with routes of higher classification. The only rural major collector in the CCIP study area is Parrotts Ferry Road.

Rural Minor Collector- Minor Collectors provide service to the remaining smaller communities within the County and link the locally important traffic generators with these rural areas. The alignment of minor collectors is often dependent on the terrain. These routes generally serve lower density areas and do not carry the large traffic volumes found on Major Collectors. Rural minor collectors occurring in the CCIP study area include Springfield Road, Shaws Flat Road, Sawmill Flat Road, Jackson St/Yankee Hill Rd, and Big Hill Rd.



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Figure 7

RTP Roadway Classifications

Columbia Corridor Analysis

2.14.1.2 Tuolumne County General Plan, Circulation Element

The roadway classification system used in the Tuolumne County General Plan Circulation Element and the Regional Transportation Plan are identical with the exception of the rural Local roads classification.

Rural Local Roads

The rural local roads system primarily provides direct access to residential property and other areas which are not directly served by the collector or arterial system. Local roads make up a major portion of the County road system, accounting for about 370 miles. Local roads are County roads not classified under the Arterial or Collector categories.

2.14.1.3 Columbia State Historic Park General Development Plan

The circulation routes within Columbia State Historic Park have been categorized into two groups: 1) Those vital to the modern scene and 2) those vital to the historic scene. The functional classification system divides roadways into Major Regional Routes, Minor Regional Routes and Local Roads.

2.15 ROADWAY DESIGN AND STREET NETWORK

The Columbia street network consists of an internal and neighborhood network, a unique grid pattern in the historic park, and several rural collector streets (primarily Parrotts Ferry Road). Some streets may be called “ordering” streets. They bring comprehension or order to the city or district. Depending on their alignment in relation to the community, they can form a boundary or form an axis. Parrotts Ferry Road, which acts as a central point of Columbia and ties the length of the town site together, is considered to be an axial street or roadway. Streets and roadways like Parrotts Ferry Road are like a compass and provide a central point of reference for residents in the community. To a considerable extent, the character of a community is determined by its street patterns which, by themselves or in relation to each other, provide the fabric which the community builds itself around. Within neighborhood areas, streets often dictate the perceived character and quality of the neighborhood by enhancing (or detracting from) a sense of place by the quality of the public spaces they form.

2.15.1 Internal and Neighborhood Network

Minor Residential Streets and Sub-Block Travel Ways - These include private drives and stub alleys that are generally discontinuous travel ways affording access to a limited number of parking spaces, garage entrances or building entrances. Private drives are appropriate for the lower densities found in Columbia. Stub alleys refer to closed travel ways that only serve parking, garage entrances, and service and utility uses.

There are several concerns regarding potential deficiencies in Columbia's roads and streets. Although the pedestrian access from the elementary school provides adequate pedestrian facilities from the school to the airport, several roadways and streets have restricted visibility at intersections and also have numerous driveways and other encroachments along their length. These driveways and other features potentially create conflicting traffic movements in certain areas and also impede traffic flow at certain times. Potential mitigations to some of these problems include improving sight lines at intersections, having individual driveways "collected" before encroaching to a street and evaluating certain traffic calming measures which could mitigate many of these issues.

Local Street Network - In Columbia's neighborhoods, local neighborhood streets form an interconnected network that can accommodate some through traffic as well. Here travel ways are slightly narrower, and there are few sidewalks. A notable exception is that of the historic downtown grid, which has more sidewalks and can accommodate a lesser degree of through traffic.

2.15.2 Unique Streets

Historic Park Grid - The historic park street pattern is a very small block grid extending only a few blocks. Block size is a historic artifact (approximately in the 300 foot x 400 foot range) with a human scale that works well for walking distances. These streets provide opportunities for high density commercial activities while preserving the historic character of the town. Though built before the time of the car, they have been paved with asphalt to better accommodate vehicular travel. On-street parking is available throughout the historic area of connecting streets. Pedestrian lanes are sometimes located on each side, though more commonly on only one side. Pedestrian crossings at intersections are only 32 feet curb-to-curb. Small blocks and their short distances between intersections maximize flexible pedestrian movement. Many of these streets are off limits to cars during the summer months. This greatly improves the pedestrian experience and mobility, and historic character within the park.

Jackson Street in Columbia State Historic Park turns into Yankee Hill Road. Though Columbia Community College is not near the Columbia State Historic Park, cars utilize Jackson Street as a primary access route to the community college which creates conflict between pedestrians and motorists. Sawmill Flat Road is the primary street that accesses the College, while a secondary emergency access exists off of Howser Lane and Forest Park Drive. The secondary access is closed to through traffic and is not up to code for pedestrian use. An alternative permanent route to the College should be considered.

2.15.3 Traffic Calming

Traffic calming measures could be employed in many areas of Columbia to enhance vehicular circulation and pedestrian experiences. Traffic calming measures include a variety of different techniques and devices which are installed within or adjacent to the roadway to slow traffic and improve the pedestrian experience. The Tuolumne County Regional Transportation Plan (RTP) Environmental Impact Report (EIR) identifies the following traffic improvements for traffic calming: traffic flow improvements such as improved entrance features that inform travelers that

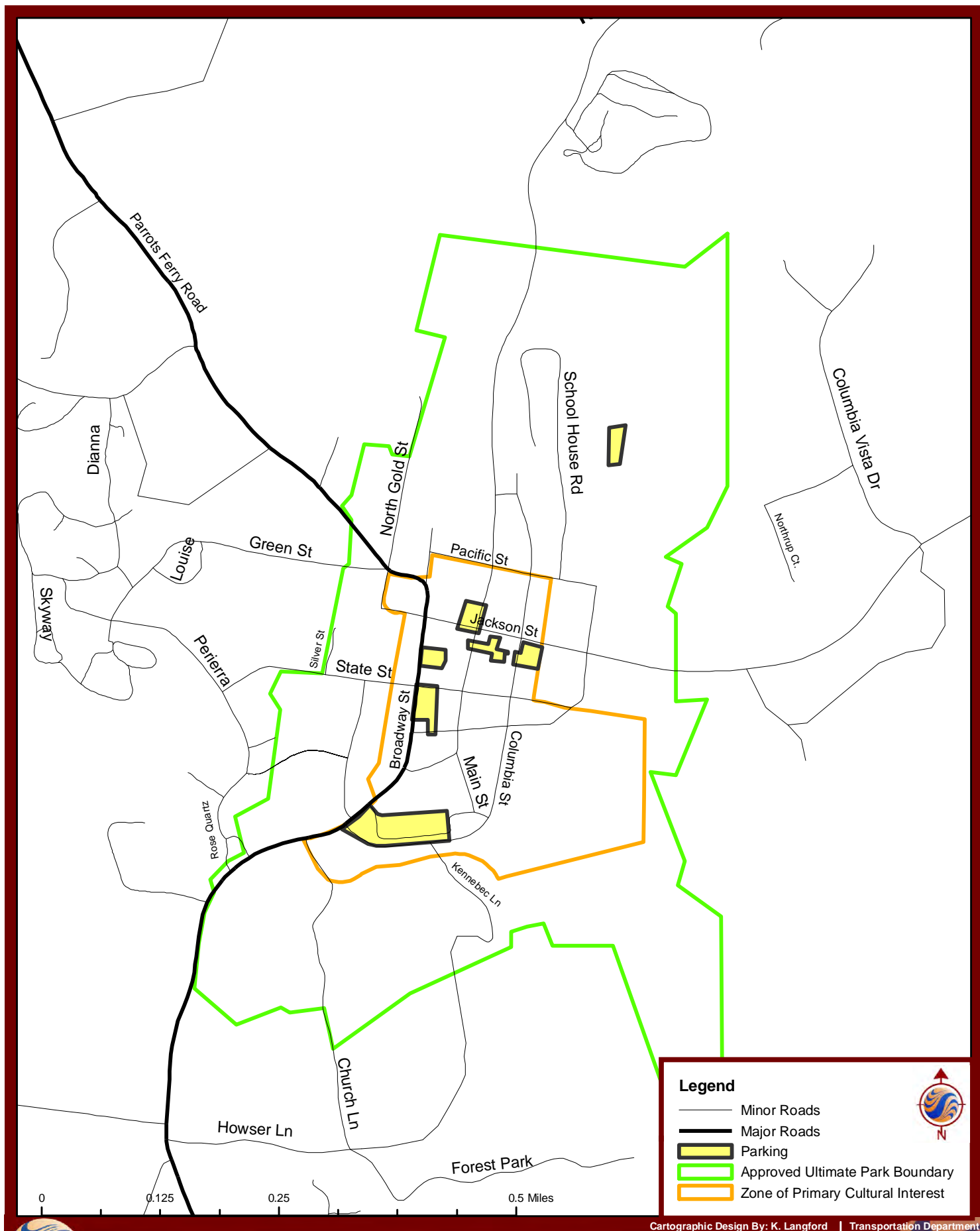
they are arriving and leaving a distinctive area, and reduced posted speeds though the State Park/ Parrotts Ferry Road corridor; increased public transit opportunities; designation of a park-n-ride lot within the Columbia community; enhanced bicycling programs within the State Park and community; trip reduction ordinances; increased telecommuting and alternative work schedule options by community businesses. Other traffic calming measures include, but are not limited to, the construction pavement texture or color changes at intersections, rearrangement of the on-street parking regime from parallel to a 45 degree pattern, and street landscaping. A row of trees may calm traffic by making the road appear narrower. This changes the driver's visual field from a wide horizontal perspective, which promotes a false sense of security and encourages faster speeds, to a taller, narrower perspective, which tends to discourage speeding. Street trees add an attractive canopy over the street and may increase comfort for pedestrians. For visibility, trees must be located and maintained properly, and not impair corner sight distance. In general, all of these street modifications tend to slow drivers down which enhances the sense of safety for pedestrians and bicyclists.

2.15.4 Parking

Experience gained in other communities has shown that large expanses of pavement parking is potentially a greater roadblock to the creation of a pedestrian-friendly, multi-modal system than large roads. In most instances, standard levels of surface parking actually force people to drive because parking convenience interferes with pedestrian mobility.

Parking ratios are often designed to accommodate the peak demands and single use, on-premises private parking is often sized to accommodate that use's peak demand, no matter how infrequent that may be. Thus, the office parking lot is full during working hours five days a week, a church lot is full on Sunday morning, and a theatre lot is full on Friday and Saturday nights. The Columbia community parking strategy differs from typical suburban approaches to surface parking with parking areas serving multiple uses, time of day events, and other functions. Currently there are seven established parking lots within the Columbia Circulation Improvement Plan Study boundaries, which include: 1) Main Gulch, 2) Core Area Block 16, 3) Core Area Block 15, 4) Jackson and Main Street, 5) Jackson and Columbia Street, 6) Old Schoolhouse and 7) Catholic Church. These total a land area of three acres. See Figure 8: Existing Parking Facilities. The capacity of these parking lots totals 330 cars. In addition, single, on-premise private parking exists within Columbia, providing additional parking options. Adequate lighting in parking areas is important for safety and to provide a sense of security for residents and visitors in Columbia. Where parking lot lighting is provided, it should be designed in an appropriate period style and also use lenses and shields to avoid night sky glare. In general, all lighting fixtures in public areas should be "dark sky" compliant.

As noted in the March 27, 2008 Steering Committee meeting, parking is an issue in the Columbia State Historic Park. Parking within the Park is considered to be unsightly, incompatible with the surrounding land uses, and presents hazards in its current configuration. Most roads in the historic downtown core are open to car traffic during non-peak seasons. These roads are generally not pedestrian-friendly, as there are few designated pedestrian or bike paths in the area. Parking is mostly off the side of the road, in gravel areas.



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Existing Parking Facilities

Columbia Circulation Improvement Plan Existing Conditions

Figure 8

Parking in such areas obstructs non-vehicular traffic and presents a safety hazard as parked cars back out into oncoming traffic and, potentially, pedestrians. Paved parking spaces, as with roads currently covered with asphalt, are seen as detracting the Gold Rush-era ambience of the historic park and should only be considered if a rustic alternative is not feasible.

Additional parking is found between Columbia Street and Washington Street, where buses offload tourists, and is paved in contemporary style. Most parking within Columbia is paved and clearly visible from the major thoroughfare. To enhance the historic character of the community, pavements should use materials other than asphalt where feasible, and should include vegetative screens to mitigate the impact contemporary living has on the historic nature of the community. Additional parking can also be found at the historic schoolhouse, which is one of a few trailheads in the community. Such parking opportunities are important at each trail head, as people who do not live near bicycle or pedestrian facilities can drive their car to trails, offload their bikes, and utilize the trailhead for access to any subsequent trails it may be connected to.

No bicycle parking facilities exist in the community. Although parking facilities are not required in order to ride a bicycle, such facilities greatly enhance convenience and “bicycle-friendly” perception among bicyclists and visitors. Bike facilities are dramatically lower in cost than car parking for an equivalent number of people.

2.15.5 Segment Levels of Service

All sections of roadway within the CCIP experience a Level of Service (LOS) A through C. In Tuolumne County, a LOS between A and C are usually deemed acceptable. The portion of Parrotts Ferry Road between the Pedro Wye and Sawmill Flat Road has a LOS D near State Route 49. A LOS D is deemed unacceptable as defined in the RTP; however, since the segment of roadway is within a quarter-mile of State Route 49, which is also a LOS D per Caltrans District 10 Route Concept Report, the policy states that this segment of roadway does not currently experience a LOS deficiency.

The stretch of Parrotts Ferry Road between the Calaveras County Line and Yankee Hill Road has an LOS A, from Yankee Hill Road to Springfield Road has a LOS B, and from Springfield Road to Sawmill Flat Road has a LOS B. A LOS C is deemed acceptable for these three stretches of Parrotts Ferry Road.

Sawmill Flat Road from Parrotts Ferry Road to Big Hill Road has a LOS B, which is the same as the general plan’s LOS criteria. Yankee Hill Road from Parrotts Ferry Road to Sawmill Flat Road has LOS A, exceeding its LOS B criterion. Shaws Flat Road from Springfield Road to State Highway 49 has LOS A, exceeding its LOS C criterion. Springfield Road, from Parrotts Ferry Road to State Highway 49, experiences LOS A (under LOS B indicates a deficiency).



2.16 EXISTING TRAFFIC VOLUME

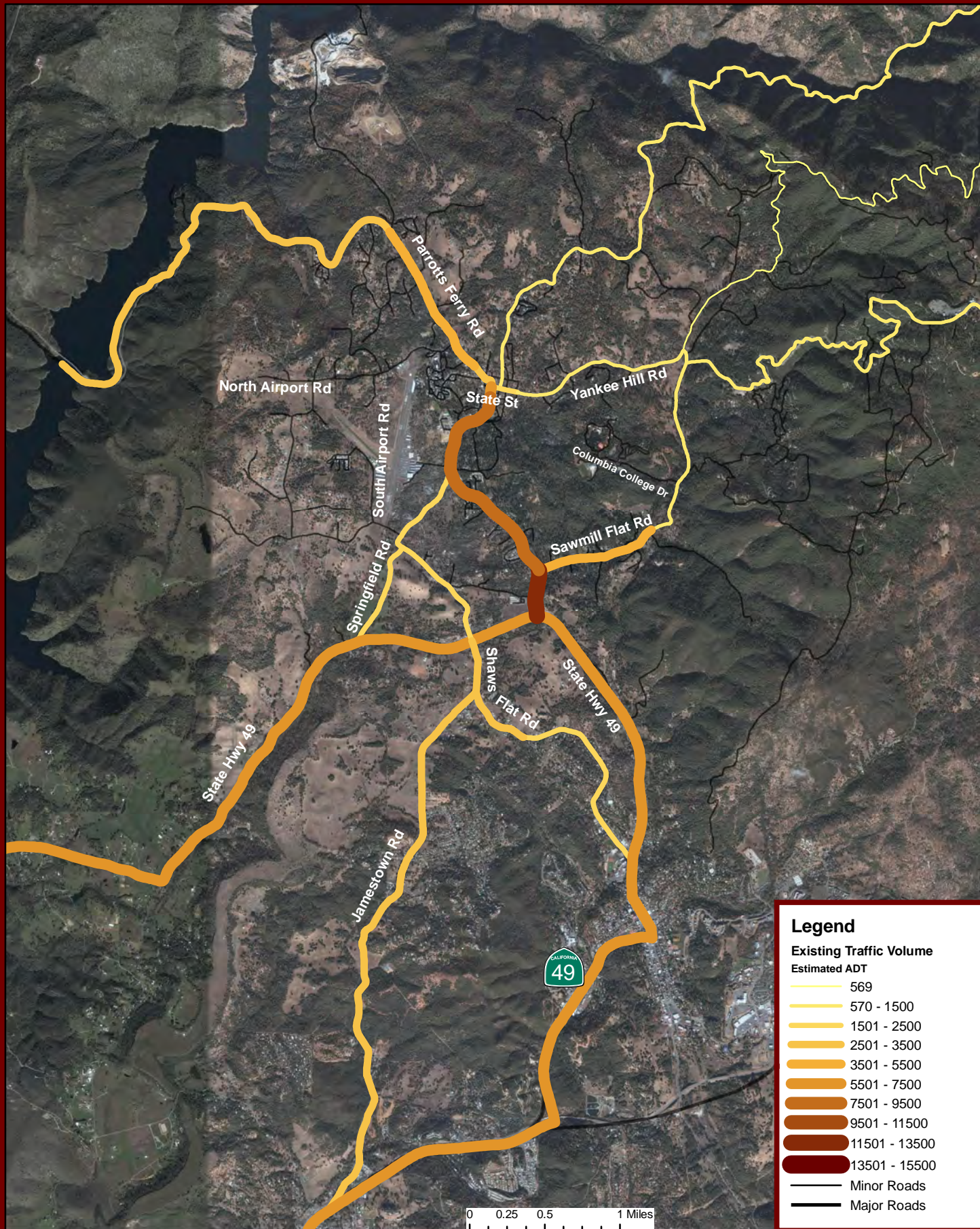
Existing traffic characteristics in the Columbia Circulation Master Study Area is presented in Table 1: Average Daily Traffic (ADT) Counts, along three segments of County Route Parrotts Ferry Road, along Airport Road, and along Springfield Road. As shown in Figure 9: Existing Traffic Volume Map, the Traffic Impact Analysis for Blue Mountain Minerals Expansion reports that between Union Hill Rd and Sawmill Flat Rd, an average daily traffic of 10,572 vehicles occurs along Parrotts Ferry Road. Just north of Sawmill Flat Rd, the number increases to 10,832. North of N Airport Rd, the number falls to 2,944.

Most streets, roads, and intersections surrounding the CCIP Area are presently operating at or above a LOS C. A traffic signal was installed at the Pedro Wye in 2009.

Traffic calming devices are used to reduce vehicle speeds and improve safety, while traffic management techniques change traffic routes of flow. Neither traffic calming devices nor traffic management techniques are employed in Columbia. Traffic calming devices could be used in Columbia to provide slower, safer traffic conditions for bicyclists along Parrotts Ferry Road and other roads.

Table 1: Average Daily Traffic (ADT) Counts

Route	Highway Segment	Vehicles Per Day (2004)
Parrotts Ferry Road	Between Union Hill Rd and Sawmill Flat Rd	10,572
Parrotts Ferry Road	Between Sawmill Flat Rd and Columbia Village Dr	10,832
Parrotts Ferry Road	North of North Airport Rd	2,944
Shaw Flat Road	Between Union Hill Rd and SR 49	2,020
Springfield Road	Between Horseshoe Rd and Quarry Rd	1,698



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Figure 9

Existing Traffic Volume Map

Columbia Circulation Improvement Plan Existing Conditions



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2.17 EXISTING TRAVEL BEHAVIOR

Overall, Columbia has a relatively low percentage of commuters who use public transportation and a relatively low percentage that carpool to work compared to the County average. A comparison of travel modes to work for Columbia and Tuolumne County is shown below in Table 2: Columbia and Tuolumne Transportation Modes. Compared to the rest the County, Columbia has a slightly higher percentage of people that walk to work.

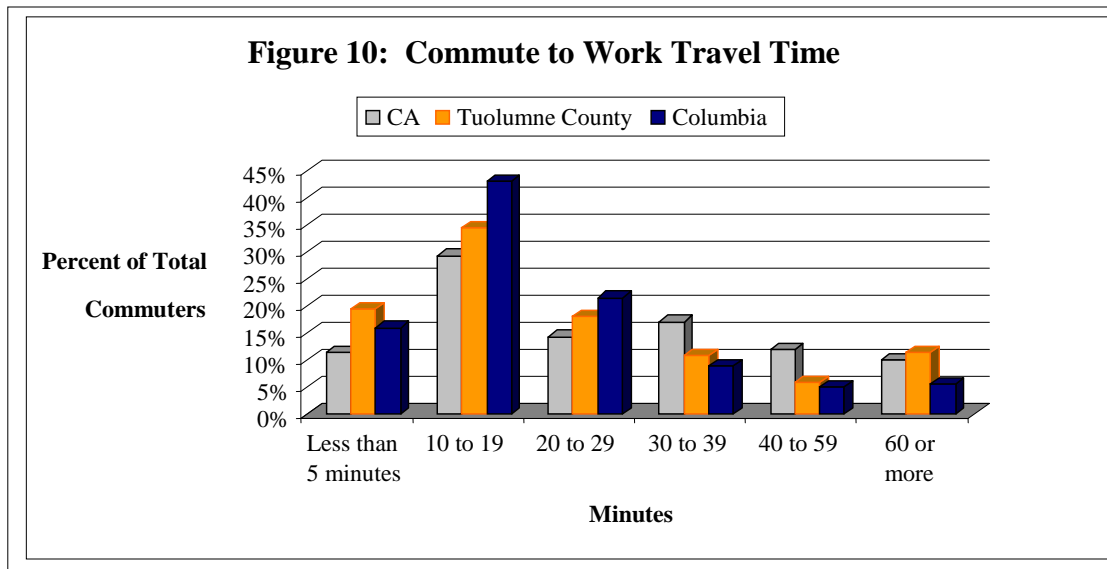
According to the 2000 Census, 665 people, or 3.3% of Tuolumne County's population biked or walked to work. Of the 665 people, 585 or 2.9% walked to work. Overall, Columbia has a relatively low percentage of commuters who use public transportation and a relatively low percentage that carpool to work compared to the County average.

Table 2: Columbia and Tuolumne Transportation Modes

Trip Type	Columbia		Tuolumne County	
Drove Alone	704	77%%	15,392	77%
Carpooled	70	8%	2,394	12%
Bus	0	0%	105	0.5%
Bicycle	0	0%	80	0.04%
Walked	28	3%	585	2.9%
Other	10	1%	140	0.07%
Worked at home	100	11%	1,125	5.7%

2.17.1 Travel Time to Work

The majority of commuters in Columbia travel between 10 and 19 minutes to work everyday. These travel times do not drastically differ from those for the rest of Tuolumne County and the statewide averages. Figure 10: Commute to Work Travel Time shows travel time pattern comparisons for Columbia, Tuolumne County, and the state of California. The major difference occurs in the less than five (5) minute travel bracket where Columbia has fewer trips than Tuolumne County and in the 20 to 29 minute time bracket where Columbia has a slightly higher percentage of trips.



2.17.2 Vehicle Ownership

Approximately 0.11% of all households in Columbia do not own a vehicle. This is two tenths of a percentage higher than the State average of .09%, but more than double the overall countywide average of 0.05%. A comparison to the countywide average may be misleading due to the high percentage of households located in rural portions of the County. Since transit is not available and accessible for these rural residents, and destinations such as Sonora and Columbia are not within walking distance, automobile ownership is critical for them. This contrasts with the situation of those in Columbia, who have much more accessible transit options and destinations within walking distance.

2.18 EXISTING TRANSIT SERVICE

Transit is provided by Tuolumne County Transit (TCT) within the County with fixed routes and demand responsive services extended to: Jamestown, Columbia, Mono Village, Willow Springs, Twain Harte, Sierra Village, Tuolumne and Groveland. The Columbia study area is within the TCT boundaries. Currently, there are three TCT fixed transit routes serving Columbia (see Figure 11: Existing Transit Stops and Services). Within Columbia, there are three transit stops within the community which connect the major areas of the town, including Columbia College. These transit stops are located at Columbia College, along the Parrotts Ferry Road just south of the California State Park Central Valley District Headquarters in Columbia State Historic Park, and at Columbia Village Townhomes. On demand services are also available to Columbia Sky Mobile Home Park, 49er Mobile Home Park, and Columbia Airport. Along with fixed route services, Tuolumne County Transit provides dial-a-ride and enhanced pick-up services for persons with disabilities or the elderly.



The existing inter-agency transit stop at Columbia College.



TCT stops at locations in Columbia Village daily.

2.19 CONNECTION TO CALAVERAS TRANSIT

TCT does not provide for travel outside the County. However, residents are able to transfer to Calaveras Transit at the Columbia College Transit Stop. Interconnectivity with Calaveras Transit at the Columbia College location is as follows: Transit Routes 2 and 3 connect with Calaveras County Route 4 on the Columbia College campus. Regional connections, including Amador County (Jackson) and Sacramento can be made via one transfer with Amador Regional Transit System (ARTS) at the Mokelumne Hill bus stop. Twenty-four hour prior notice is required for pickup.

The existing Columbia College Transit Stop location plays a critical role in the County's transportation scheme for regional flow of transit riders in and out of the County. The current deficiencies of the facilities at this location have been identified in the Columbia College Facilities Master Plan and repeatedly during the CCIP planning process.



Existing transit stop on Parrotts Ferry Road in Columbia SHP.



Legend



Bus Stop



Bus Service



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Figure 11

Existing Transit Stops & Services

Columbia Corridor Analysis

The TCTC is currently implementing a project to locate an interagency bus shelter with a Caltrans Planning and Research Grant. The background work and analysis involving this transfer station will be complimentary to background work of the CCIP and that the planning efforts of both the CCIP and the bus transfer facility are being closely coordinated.

2.20 TRANSIT FACILITIES

Columbia currently lacks any designated “Park-n-Ride” facilities or Transit Centers. The development of a bus transfer facility could increase public access to TCT’s services and increase ridership by providing a central point of access in the community for TCT’s services. The experience of other communities has been that intermodal transit stations, with proper planning and design, are valued as an asset of the community. An intermodal station could be located to serve the local community, should have an adjacent parking area, be served by bicycle and pedestrian paths and would be strategically located so that visitors to the State Park, local shops and other community facilities could use the facility for transportation to and from Columbia. Since one of the objectives of the CCIP is to reevaluate land uses in certain areas of Columbia to recommend uses which would enhance circulation and transportation, the designation of a community square or green is complimentary to the concept of a transit facility in the same location. State Park officials have also indicated a willingness to locate a transit stop within the State Park as long as the design of the stop conforms to a historical design standard.

Based on research by the Federal Highway Administration, it is estimated that between 40 and 50 percent of all rural vehicle trips are less than 3 miles in length, and up to 80 percent are less than 10 miles. If public transit is available and operates with a convenient schedule or other alternative travel methods are available (bike paths, etc.), many of these trips can be combined or completed utilizing different transportation modes. Furthermore, increasing the use of transit or other alternative modes of transportation, results in a decreased parking demand thereby leaving more space for the primary historical use of Columbia. The CCIP area is characterized by a zoning regime that captures most shopping, recreation, and service trips within a mile or so of the general community center. However, it may be difficult for transit riders to get from the bus stop to their final destinations, depending upon how safe it is to walk or bike. TCT can extend its transit routes and services when the demand (ridership) can support it. To maximize transit ridership and minimize automobile usage, the TCT system has been planned in a fashion that considers the following:

- Diversity of land uses
- Design that enhances access to transit facilities
- Density that results in maximum ridership
- Destinations that attract transit riders

Columbia offers a limited range of goods and services; residents must regularly travel to neighboring communities in order to obtain groceries, to shop for clothing, etc. As a result, regional transportation remains an important aspect of daily transportation. As traveling regionally in Tuolumne County for most residents is not practical by bicycle or by foot, transit plays a pivotal role for those residents who do not own a car or do not have access to a vehicle.

There is a synergistic effect between a community designed for walking or biking and mass transit. As people are able to walk to more areas, a bus stop will be reachable by more people. As residents walk more, they will also see how easy it is to incorporate transit into their trips. Increasing connectivity and safety along trails can in turn increase transit ridership, which could allow TCT to include more stops or make service more frequent.

2.21 NON-VEHICULAR CIRCULATION NETWORK

The formula for a comfortable walking distance is not as precise as traffic engineers would have us believe. Conceptually, the CCIP's mobility strategy starts with the smallest, most urban and pedestrian-friendly components and works up. It concentrates activities and densities within an easy walk to destinations, prioritizes pedestrian safety and friendliness in intersection design, and creates a highly connective neighborhood network to enhance inter-neighborhood interaction.



Many of Columbia's historic streets become non-vehicular circulation areas during summer months

Beyond functional purposes of providing for people to get from one place to another and to gain access to property, streets, trails, paseos, multi-use trails, and sidewalks – non-vehicular facilities can and should help to do other things to achieve a livable community: bring people together, encourage a healthy lifestyle, build a closely-knit community, cause people to act and interact, to achieve together what they might not alone. As such, the non-vehicular network should encourage socialization and participation of people in the community. Non-vehicular networks serve as locations of public expression and should be physically comfortable and safe. The best streets, pathways, and trails create and leave strong, lasting, positive impressions; they catch the eyes and the imagination. Non-motorized transportation will also partially help restore the historic character of Columbia. Well-planned and designed pedestrian and bike facilities are enjoyable places to be where one would want to return to later. Streets, pathways, paseos, and trails are places for activity, including relaxation.

Walking is the beginning and end of every transit trip, and by providing direct on-site connections to on-street amenities and functional transit stops, transit ridership can be encouraged. The non-vehicular network consists of various elements that would facilitate a comfortable and convenient non-motorized travel experience in Columbia. Elements of non-vehicular networks are described below.

2.21.1 Pedestrian Only Places

At the smallest scale, pedestrian paths and trails form the finest threads in the historic downtown's connective network. Community homes and small specialty shops elsewhere can front paths and plazas that connect between street blocks and different sections of Columbia. Historic terms such as mews and courts, speak to small town spaces shared and maintained by a few neighbors. These delightful enclaves can be fully private, enclosed courtyards, or in some cases connected by mid-block public walks, open during daylight hours and closed at night. To support pedestrian connectivity, all street bounded blocks in residential and mixed-use areas should be a maximum of three to four acres; and the combination of streets, through alleys and walkways, create sub-blocks no larger than two acres. Where topography dictates a branch-like street network, sidewalks can connect neighbors along a street, while separated paths can connect one street to another.

Pedestrian safety and comfort is enhanced when the impacts of traffic and noise are buffered with planting strips and low scale architectural features, including: walls, fences, seating and other urban streetscape elements. Safe routes to schools could be supported with a multi-modal street design that creates bike lanes and separated sidewalk widths.

Pedestrian amenities that offer convenience, comfort, and safety should be provided on all streets. Such amenities include street trees and landscaping, lighting, planters with seating, signage and information kiosks, refuse and recycling, awnings, canopies and other streetscape amenities. The following are design principles that are aimed at accomplishing these policies:

Sidewalks with a 6-foot cross section provide a margin of safety for pedestrians and can accommodate a large number of pedestrians. Lighting, planters, seating, refuse and recycling, street furniture and amenities should also be provided, especially in the Columbia State Historic Park.

Sidewalks on busy streets outside of the historic park, for example in front of the elementary school, may be separated from the curb by a 6-foot planter strip. The sidewalk by the elementary school has no such planter strips and is not afforded protection from passing traffic. Trees can be planted in the planter strips. At transit stops, the planter areas should be paved, with trees located in wells with tree grates. Lighting, planters, seating refuse and recycling, street furniture and amenities should also be provided.



Examples of pedestrian-only places in downtown Columbia.



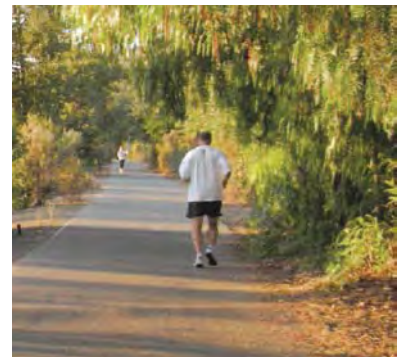
Roads carrying larger traffic loads may employ more specific pedestrian crossing design strategies. These may include the use of larger medians for a mid-crossing refuge, where appropriate (e.g., Parrotts Ferry Road).

In recognition of the value to the community that pedestrian trails and walkways provide, the Board of Supervisors has adopted a number of General Plan Policies aimed at encouraging or requiring the development of suitable and adequate pedestrian facilities and walkways. While these General Plan Policies provide broad direction for the Board and County officials in their day-to-day management of the County, they also have the force and effect of law when a development entitlement is requested to be approved by the County. In this instance, these Policies provide a requirement that the development project or other entitlement must comply with as part of the overall County approval process. The County's General Plan policies specific to pedestrian sidewalks and paths are located in Appendix B.

2.21.2 Multi-Use Trail Network

Multi-use trails are intended to provide a beautiful and continuous system for pedestrians, equestrians, and bicyclists with minimal interface with vehicle traffic on roads. The existing informal trail system in Columbia links a few areas together; however, a more cohesive vision for an overall network of all-weather multi-use trails is needed. Equestrian uses should also be considered in the design and construction of trails and pathways in Columbia. Typically these facilities can be constructed parallel to multi-use trails as separate bridle trails to avoid conflicts of use. The Tuolumne County Recreation Master Plan and Tuolumne County Bikeways and Trails Plan provide construction standards for these facilities.

In several areas around Columbia where families own acreage, ownership of one or more horses is common. There are limited opportunities for riding horses in Columbia, and planning for non-vehicular trails and pathways should include equestrian uses along with pedestrians where there is adequate horizontal distance to accommodate riders and walkers.



3.0 Relevant Studies and Reports

Many past planning efforts in Columbia and the County have formulated circulation improvements in and adjacent to Columbia. Each of these plans has had a different focus and the level of planning for projects specified in each document varies. The following section provides a brief summary of each of those documents, a explanation of how the documents relate to the CCIP planning effort and a list of projects (if any) identified in the document that occur within the CCIP planning area. It was a goal of the Columbia Circulation Improvement Plan to make a concerted effort at documenting, synthesizing, and expanding upon the recommendations of each of these planning efforts as part of the process to create an updated cohesive vision of what circulation improvements are needed and desired in Columbia. The CCIP was able to gain an additional level of public input through the review of the goals, policies, projects, and priorities identified in these documents. This review helped to supplement the public input collected during this project to form a clearer picture of the Community/County's collective vision for transportation improvements in Columbia.

3.1 TUOLUMNE COUNTY GENERAL PLAN, CIRCULATION ELEMENT (1996)

State General Plan law has mandated the inclusion of a Circulation Element in General Plans since 1955. This element is not simply a transportation plan but is actually intended to be an infrastructure plan that addresses the circulation of people, goods, energy, water, sewage, storm drainage, and communications. All of these issues are addressed in the Circulation Element and also addressed in the Public Facilities and Services Element, the Safety Element or the Conservation and Open Space Element of the General Plan. The Circulation Element of the County's General Plan reflects the goals, policies and programs of the Land Use Element, including the land use designation diagrams. This integration of Land Use and Circulation Elements has been accomplished by identifying effects from the growth and development proposed in the Land Use Element on the County's circulation system and formulating measures to mitigate that growth. Conversely, the growth projected in the Land Use Element has been directed to areas that currently can, or have the potential to, accommodate increased demands on the circulation system.

The Circulation Element of the General Plan was created to help policy makers, administrators, planners, engineers and developers understand how to design communities and projects that promote an efficiently balanced transportation system that reflects the needs of not just automobiles, but of pedestrians, transit riders, and bicyclists.

3.1.1 Relation to the Columbia Circulation Improvement Plan

The General Plan's Circulation Element encourages walking and the use of bicycles between high use areas in order to reduce road congestion in its Non-Motorized Transportation section. It also encourages that the network of transportation and pedestrian routes be integrated into existing and/or recreational routes identified in the County's Recreation Master Plan. In addition,

for each transportation option, Streets and Highways, Non-Motorized, Public, Rail, and Aviation, the Circulation Element provides a list of goals, policies and implementation programs to guide future circulation improvements in the County. It also establishes priorities for choosing road improvement project when limited amounts of funding are available. It emphasizes high-impact, less expensive routes. These guidelines identified in the General Plan Circulation Element helped inform the prioritization methodology for projects described later in this document.

3.2 TUOLUMNE COUNTY REGIONAL TRANSPORTATION PLAN (2006/2007)

The Regional Transportation Plan (RTP) serves as the planning blueprint to guide transportation investments in Tuolumne County involving local, state, and federal funding over the next twenty years. The overall focus for the 2006/07 RTP Update is directed at developing a coordinated and balanced multi-modal transportation system within Tuolumne County. The coordination objective is to bring the County, City of Sonora, communities, and other governmental agencies, Indian Tribal Governments, the commercial trucking community, and citizens into the planning process. The balance is achieved by considering short-range (0–10 years) and long-range (11–20 years) transportation investments and improvements for all modes, including goods movement, highways, transit, bicycle, pedestrian, railroad, and aviation facilities within a financially constrained environment. The RTP places an emphasis on developing pedestrian and bicycle facilities to encourage non-motorized transportation. The RTP, together with the Tuolumne County Bikeways and Trails Plan, provides a framework for thinking about possible regional interconnections of automotive, public transit and non-automotive transportation facilities. Specific project locations/segments are listed for each modality and some have been prioritized. The RTP also establishes guidelines for ‘Purpose and Need’ justification for each of the proposed projects based on a qualitative assessment of the projects contribution to system preservation, capacity enhancement, safety, and/or multi-modal enhancements.

3.2.1 Relation to the Columbia Circulation Improvement Plan

Many of the ‘Tier 1a’, ‘Tier 1b’, and ‘Unfunded’ projects identified in the RTP are fully or partially within the CCIP planning boundary. The CCIP effort sought to refine the details of the projects recommended in the RTP. The RTP establishes a policy that non-motorized facilities in the County, in order to effectively assist in the reduction of non-motorized traffic, shall target short distances connecting schools, work centers, large subdivisions, shopping, and life enrichment facilities, including swimming pools, parks, libraries, and senior centers. In addition, the element encourages the provision of Class I and Class II facilities to allow for bicycle and pedestrian safety. The goals, objectives, and policies of the RTP and the methods used in the RTP for determining the purpose and need of each of the projects helped inform the prioritization methodology for projects described later in this document.

Levels of Service (LOS) standards for various types of roads are included in the RTP. The segment of Parrott’s Ferry Road between SR 49 and Sawmill Flat Road is noted as ‘one of the most dangerous segments of roadway in the County’ and currently operates at a LOS D. For a Major Collector, since the segment is within one-half mile of SR 49, which also operates at a

Class D in this segment, the RTP indicates that there is currently no LOS deficiency in this stretch of roadway. Signalization of the intersection was completed in 2009. Following the signalization of the intersection and the expansion of Parrotts Ferry Rd to four lanes (both Tier 1a projects), the RTP indicates that the segment will operate at a LOS C by 2020, and again at a LOS C at 'build-out' in 2030. The RTP does not provide the LOS at the Wye with the signalization project installed but prior to the expansion of the roadway.

3.2.2 Planned Transportation Improvements in Columbia

The RTP lists several transportation improvements which occur fully or partially within the CCIP planning area. These projects include highway, roadway, airport, bicycle and pedestrian projects. The RTP also recommends improvements to the Tuolumne County Transit to Calaveras Transit transfer point at Columbia College. The projects listed are as follows:

RTP Tier 1a projects in the CCIP planning area include:

- Install traffic signal at the intersection of Parrotts Ferry Road and SR 49 when warranted. Funding: Caltrans. Completed in 2010.
- Widen Parrotts Ferry Road from SR 49 to Sawmill Flat Road to four lanes and upgrade Parrotts Ferry Road from Sawmill Flat Road to Calaveras County line to major collector standards. Funding: TIF. Expected by 2020.
- Columbia Airport – The RTP identifies several projects in and around Columbia Airport.

RTP Tier 1b projects in the CCIP planning area include:

- SR 49 from proposed Greenley Road extension to Parrotts Ferry Road: widen to four lanes. Funding: state local partnership. Funding: State/local partnership/TBD. Expected completion by 2030.
- Sonora – Columbia: Construct Class I bike path and Class II bike lane from Sonora to Columbia College. Funding: BTA. Expected completion by 2030.
- Jamestown – Columbia: Construct a Class II facility from Jamestown to Columbia via the vicinity of Jamestown Road to Shaws Flat Road to Springfield Road to Parrotts Ferry Road. Funding: BTA. Expected completion by 2030.

RTP Unfunded Community Sponsored projects in the CCIP planning area include:

- Parrotts Ferry Road Bypass: Construct a bypass of Columbia on a new alignment diverting traffic off Parrotts Ferry Road. Funding TBD. Expected date TBD.

The RTP provides approximate costs for each project along with 'Purpose/Need' judgments. It states that the construction of a new alignment for Parrotts Ferry Road can substantially enhance the character and walkability of the historic area, generating less noise from car and truck traffic and routing heavy traffic away from pedestrians. The RTP states that the realignment could also improve safety, as 45 accidents occurred between 2003 and 2005 on Parrotts Ferry Road. Repaving the existing Parrotts Ferry Road section near the historic area,

together with other roads in the downtown grid, with period pavement, or pavements designed to imitate dirt roads, can further enhance the Columbia State Historic Park. The County is making some local improvements in noted problem areas; however the RTP states that a Parrotts Ferry Road bypass will do little to reduce regional traffic issues outside of Columbia.

3.3 COLUMBIA COMMUNITY PLAN (2009)

The Columbia Community Plan is part of the Tuolumne County General Plan. The Columbia Community Plan allows for greater local input into the planning, growth and development of the community of Columbia. The plan is formulated to be consistent with the Tuolumne County General Plan but contains certain policies and implementation programs to meet specific needs of the Columbia Community. The Columbia Community Plan works to complement the General Plan and, as such, the policies and implementation programs contained in the document are planned to be implemented in addition to those contained in all elements of the General Plan. The long-range growth and development policies contained in the document are intended to guide the Community through orderly growth over the next 25 years.

3.3.1 Relation to the Columbia Circulation Improvement Plan

The Columbia Community Plan places an emphasis on preservation of historic resources within Columbia, establishing an implementation program consisting of Design Guidelines, a Design Review Area and a Historic Design Preservation Area. Historic structure rehabilitation programs and tax incentives with the goal of preserving the community are also discussed. A high value is placed on pedestrian walkways for both new residential and new commercial developments. There is a list of proposed bicycle and pedestrian improvements in the Community Plan, which is included below. The Community Plan includes a discussion of potential funding sources, including requiring new development to pay its fair share. The Community Plan encourages infill development and a compact community to keep infrastructure costs to a minimum. It also promotes commercial development at the Pedro Wye. The CCIP will strive to prioritize planned projects in a financially constrained Capital Improvement Program to best utilize available funding. The CCIP will also provide a financial strategy to expand funding opportunities identified in the Columbia Community Plan.

3.3.2 Planned Transportation Improvements in Columbia

The Columbia Community plan was revised in 2009 by the Columbia Area Planning Commission and approved by the Tuolumne County Board of Supervisors on June 16, 2009. The revised list of proposed projects is divided up into 'Proposed Combination Bicycle/ Pedestrian Projects' and 'Proposed Pedestrian Projects'. These projects are as follows:

Proposed Bicycle and Pedestrian Projects:

- Sawmill Flat Road to Columbia College via Melones Water Line
- Parrotts Ferry Road from Marble Quarry Road to Jackson Street
- Parrotts Ferry Road from the Dondero Trail to Jackson Street

COLUMBIA CIRCULATION IMPROVEMENT PLAN

Relevant Studies and Reports

May 2010

- Columbia College to Sonora via Sawmill Flat Road, Parrotts Ferry Road and SR 49
- Columbia to Sonora via Parrotts Ferry Road and SR 49
- Stage Coach Trail from Columbia State Historic Park to Columbia College
- Squabbletown Trail from Sawmill Flat Road to Browns Flat
- Columbia Airport Trail from Horseshoe Bend Road to North Airport Road

Proposed Pedestrian Projects:

- Dondero Trail
- Bell Hill Trail from Columbia State Historic Park to Columbia College Par Course

Though not listed as a proposed project, the Columbia Community Plan also addresses the desire to encourage the dedication of public access easements along Mormon and Woods Creeks to capitalize on the recreational opportunities of these areas (via non-motorized trails). The Plan promotes the development of a Parrotts Ferry Road bypass and the establishment of a community landscape program in and around the Community and along Parrotts Ferry Road.

The Columbia Community Plan does not identify approximate lengths or estimated costs. It does recommend the use of existing Title 11 road standards within the Plan boundaries. It also provides language to 'require the construction of pedestrian facilities along Parrotts Ferry Road from the Pedro Wye to the Columbia State Historic Park. Transit facilities should be provided in key locations.' This information was incorporated into CCIP planning efforts in developing the proposed projects and the prioritization methodology.

3.4 COLUMBIA STATE HISTORIC PARK GENERAL DEVELOPMENT PLAN

The purpose of the Columbia State Historic Park General Development Plan (GDP) is to provide general guidelines for preservation, interpretation, and development of Columbia State Historic Park. In 1945 the historic town of Columbia became a unit of the California State Parks System. Although the Department of Parks and Recreation has prepared several planning surveys for Columbia since then, the 1979 document is the first in response to the mandate of the Public Resource Code. This state law requires that a Resource Management and General Development Plan be submitted to the State Park and Recreation Commission for approval.

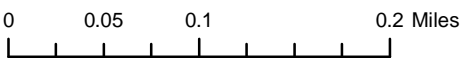
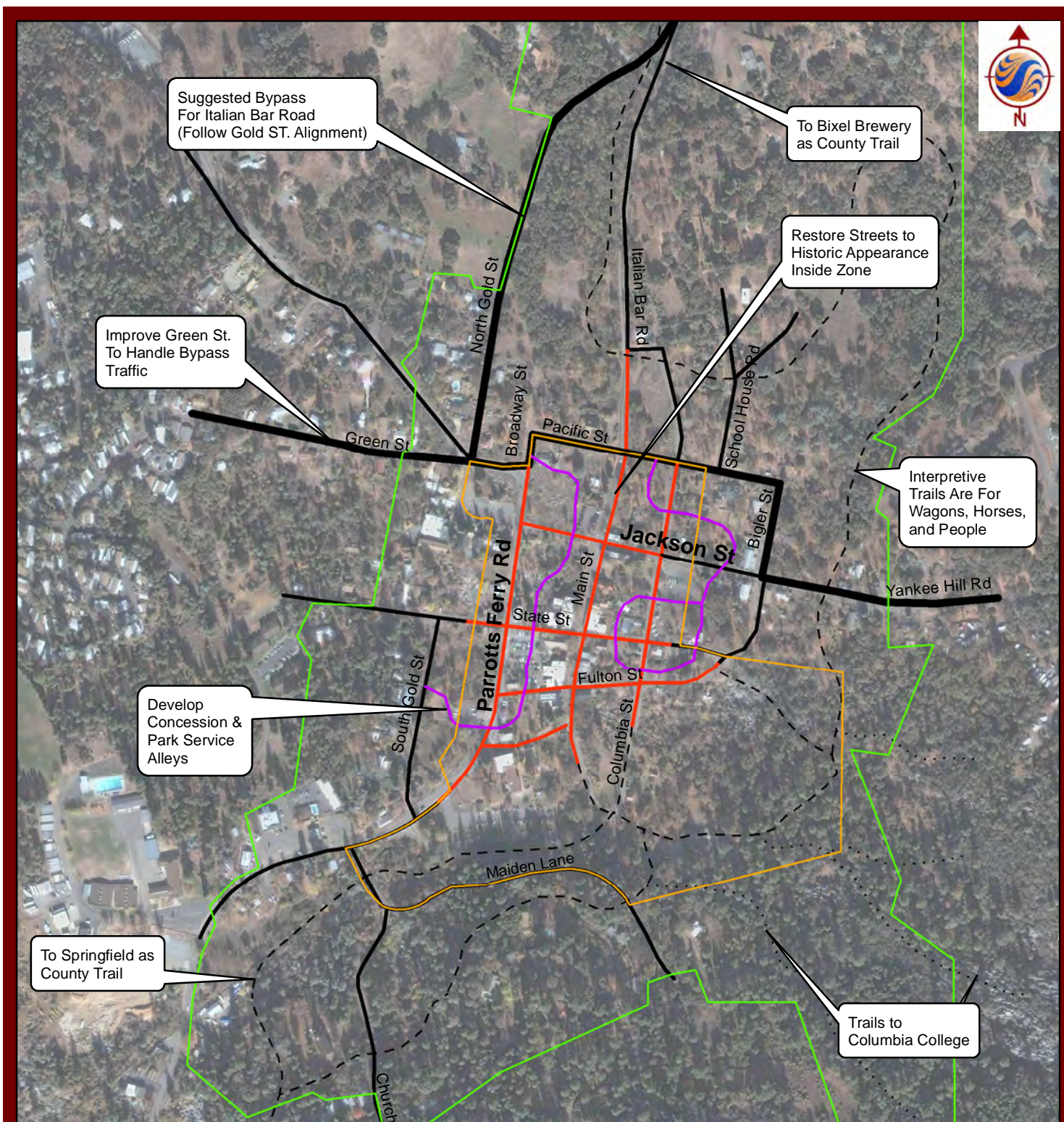
3.4.1 Relation to the Columbia Circulation Improvement Plan

In relation to the CCIP, the General Development Plan for the Columbia State Park provides development objectives for Transportation and Circulation to preserve historical resources. In addition, the General Development Plan provides a baseline of analysis for the location of principal operational areas identified in the document. For instance, though the plan proposed restoring the historic streets in the zone of primary cultural interest (center of the Columbia State Historic Park), as well as removing a modern portion of Columbia St. and replacing it with an interpretive trail, these improvements have yet to be carried out. The CCIP will strive to prioritize planned improvement projects in a financially-constrained Capital Improvement

Program to best use available funding. The CCIP will also provide a financial strategy to potentially expand funding opportunities.

3.4.2 Planned Transportation Improvements in Columbia

The Columbia State Park General Development Plan proposed an extensive network of pedestrian and equestrian amenities and pathways. It was central to the development concept for the park that the pedestrian and horse be the modes of transportation used in the Park. Service alleys were designated to hide automobiles if they were needed in the park and they were screened from view. Bicycle parking facilities were proposed to be provided at the perimeter edges of the Park, but not allowed inside. A summary graphic of the proposed improvements has been included as Figure 12: Proposed Columbia State Historic Park (SHP) General Development Plan (GDP) Circulation (the alignment of the Parrotts Ferry Road bypass from the plan has been omitted from the graphic). The concept of a Parrotts Ferry Road bypass is also recommended in this document to 'relieve the park of through traffic' and 'reduce the impact of motor vehicles on Columbia'. Bypasses of the Jackson St and Italian Bar Rd area also discussed in this document. Many of the circulation improvement projects recommended in the document have been carried over into the proposed projects section of the CCIP.



Legend

- | | | |
|-----------------------------------|---------------------------|---------------------|
| Zone of Primary Cultural Interest | Secondary Regional Route | Service Alleys |
| Approved Ultimate Park Boundary | Local/Park Streets | Interpretive Trails |
| | Restored Historic Streets | Hiking Trails |

Proposed Circulation



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Cartographic Design By: K. Langford | Transportation Department

Figure 12
Columbia SHP GDP
Proposed Circulation Improvements
Columbia Corridor Analysis

3.5 TUOLUMNE COUNTY RECREATION MASTER PLAN (1996)

The Board of Supervisors adopted a Recreation Element in the Tuolumne County General Plan in 1996 which provides direction to the Board and other agencies in planning and implementing needed recreation facilities in Tuolumne County. The Tuolumne County Recreation Master Plan has several purposes which include: describing the general location for regional recreation facilities; providing conceptual designs for future parks and recreational facilities; estimating costs of construction; identifying potential funding sources; identifying potential management agencies and providing the rationale for development of needed recreation facilities in Tuolumne County. The basic purpose of the Tuolumne County Recreation Master Plan is to implement the provisions of the General Plan and to assemble together in a single document a complete master plan which identifies existing recreation facilities in Tuolumne County and provides a master plan for the development of new facilities. The Tuolumne County Recreation Master Plan provides a set of objectives, policies and standards which inventories existing facilities; identifies the recreational needs of Tuolumne County residents and visitors; identifies the type and the general locations for new facilities and proposes methods to finance needed recreation facilities; identifies potential funding sources for various projects; and identifies standard cross-sectional metrics for different types of bicycle, pedestrian, equestrian, and combination facilities.

3.5.1 Relation to the Columbia Circulation Improvement Plan

The Tuolumne County Recreation Master Plan lists a number of proposed projects within the study area limits of the CCIP. Descriptions of the projects that are relevant to the CCIP are included in the 'Planned Pedestrian and Bicycle Facilities' section of this document. The relevant planned facilities in the Recreation Master Plan, along with those from other planning documents, are identified in Technical Memorandum No. 4: Summary of Transportation Gaps and Potential Solutions as potential projects for incorporation into the CCIP. (See Appendix D).

3.5.2 Planned Transportation Improvements in Columbia

The Tuolumne County Recreation Master Plan also provides many specific recommendations for the development of trails and pathways serving the County and Columbia. Appendix D of that document includes the Goals and Policies relating to Trails as extracted from the County's Recreation Master Plan. It also includes several maps with specific priority trail locations/alignments and implementation recommendations in and around Columbia as identified in the County's Recreation Master Plan. These priority projects are as follows:

- Bell Hill Trail: Connects Columbia township near Marble Quarry R.V Resort on Yankee Hill Road eastward to the existing trail around Columbia College. Estimated length: 0.62 miles
- Dondero Trail: This existing trail connects Columbia Airport with Parrotts Ferry Road just south of Columbia Elementary. If this trail was upgraded it could accommodate disabled users. Estimated length: 0.32 miles

- **Columbia – Main Tuolumne Ditch Trail:** The trailhead would be located at Lyons Dam, then southeasterly past Twain Harte Golf Course, and westerly across Kewin Mill Road. At approximately the top of Big Hill Road, the Main Tuolumne Ditch follows this ditch to near Italian Bar Road, and follows to its intersection with the San Diego Ditch in Columbia. Estimated length: 16.98 miles
- **Squabbletown Trail:** This proposed trail would start where Woods Creek Trail ends near Sonora High School. It would connect Sonora to Columbia College and eventually Columbia via the Bell Hill Trail. Estimated length: 0.92 miles

The Recreation Master Plan also lists a number of non-priority trails in its Appendices. The relative quadrangle locations are specified although detailed alignments are not given. These projects are not included for prioritization in the CCIP however they are recommended for retention as part of a long-range recreational planning effort.

3.6 TUOLUMNE COUNTY BIKEWAYS AND TRAILS PLAN (2004)

This plan provides an inventory of non-motorized trail and pathway facilities throughout Tuolumne County and provides a list of factors to consider in locating and designing bicycle and pedestrian facilities, including safety, topography, distance, and practicability. Funding shortfalls for the maintenance of currently existing trails is also discussed, along with funding alternatives. Sources of funds for new trail and bike path improvements are also listed. Lists of proposed priority and non-priority trail projects are provided, along with a discussion of transit options within the County.

3.6.1 Relation to the Columbia Circulation Improvement Plan

There are two priority trails listed in the Tuolumne County Bikeways and Trails Plan that have at least a portion of their lengths within the CCIP area. A large number of non-priority trails in Columbia are also listed in the plan. Descriptions of all of these projects are included in the 'Planned Pedestrian and Bicycle Facilities' section of this document. The priority and non-priority facilities identified in the Bikeways and Trails Plan, along with those from other planning documents, are identified in Technical Memorandum No. 4: Summary of Transportation Gaps and Potential Solutions as potential projects for incorporation into the CCIP (see Appendix D). It will then be the collaborative task of Stantec, TCTC, the CCIP Steering committee, CCIP Stakeholders, and other members of the Columbia community to more accurately define, quantify and prioritize these facilities for recommendation and implementation. Many of the proposed bikeways and trails complement plans recommended in other planning documents. There exists an opportunity to find synergies between a number of planned projects from different planning documents and define new holistically planned transportation improvement projects for the community of Columbia.

3.6.2 Planned Transportation Improvements in Columbia

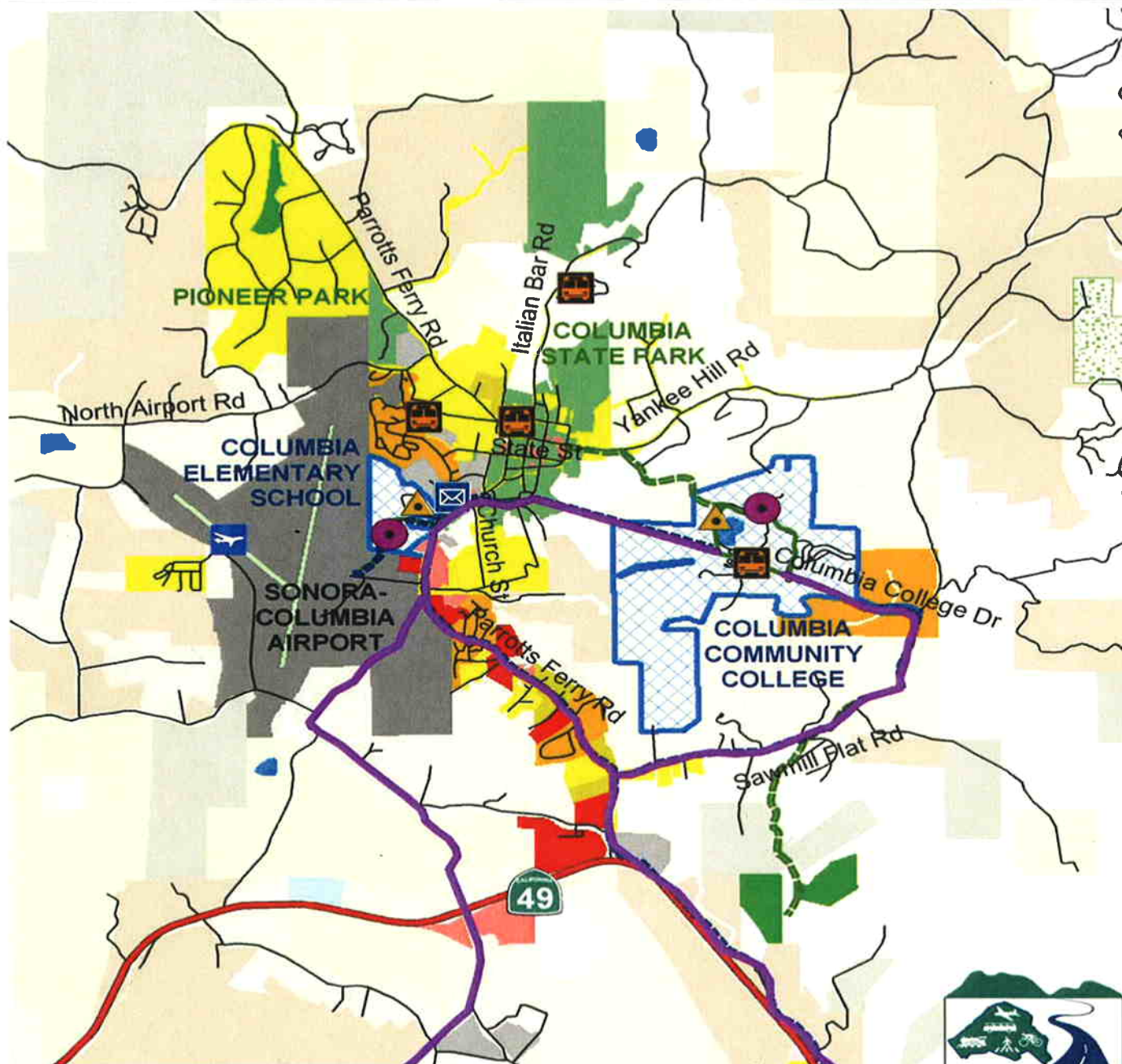
The Tuolumne County Bikeways and Trails Plan of 2006 includes a citizen-generated priority project list, including two bike trails that would lead to Columbia. These bike trails would travel through much of Columbia and connect high-use areas within the community. See Figure 13: Map of Proposed Bike Routes for proposed bike routes within Columbia. Additionally, the plan recommends bicycle parking facilities in many high-use areas, including parks, recreation centers, and employment centers. The projects identified are as follows:

- Sonora – Columbia: Construct a 2.7 mile bicycle and pedestrian facility from Sonora to Columbia College.
- Jamestown – Columbia: Construct a 6.1 mile bicycle and pedestrian facility from Jamestown to Columbia via the vicinity of Jamestown Road to Shaws Flat Road to Springfield Road to Parrotts Ferry Road.

Additionally, Appendix C of the Tuolumne County Bikeways and Trails Plan includes a list of non-priority trail projects in Tuolumne County. It states that the projects have been taken from the 1996 Tuolumne County Regional Transportation Plan and the Tuolumne County Recreational Trails Plan. Should community support and appropriate funding sources be found, the Plan encourages these projects also be given consideration. Projects identified that have at least a portion of their length in the CCIP planning area are as follows:

Planned projects found in the 1996 Tuolumne County Regional Transportation Plan as identified in the Tuolumne County Bikeways and Trail Plan:

- Widen shoulders along Broadway (Parrotts Ferry) from Airport Road to the entrance of Columbia State Historic Park for combine bicycle and pedestrian use. Estimated length: 0.6 miles.
- Provide bicycle and pedestrian facilities from Columbia Airport to downtown Columbia along Airport Road, then overland through the Steiner parcel along Mormon Creek to Parrotts Ferry Road near Columbia Elementary School and connecting with Parrotts Ferry Road facilities. Estimated length: 0.5 miles
- Widen shoulders along Parrotts Ferry Road from Sawmill Flat Road to Airport Road for bicycle use. Estimated length: 1.0 miles.
- Connect Columbia College to downtown Columbia. Improve existing path from Columbia College to downtown Columbia for bicycle and pedestrian use. Note: the area is under State and private ownership and negotiations to obtain permission to use the path to avoid conflict with stagecoach and horses should be discussed extensively with the State and private owners to determine the most appropriate design standards and any potential deviations needed along the route. Estimated length: 0.7 miles



MASTER LEGEND
Use this legend for all following maps

- | | | |
|-----------------------------|----------------------------|------------------------------------|
| Sonora Transit Stop | Tuolumne Rancheria | Priority Bikeway Projects |
| Sierra Village Transit Stop | Stanislaus Nat'l Forest | RTP Existing Trails |
| Columbia Transit Stop | Schools | RTP Proposed Trails |
| Jamestown Transit Stop | Parks | Rec. Plan Existing Trails |
| Tuolumne Transit Stop | Lakes | Rec. Plan Proposed Trails |
| Airport | Sonora City Limit | Tuolumne Rancheria Trail |
| Hospital | City of Sonora | Railroad |
| Existing Bike Racks | Business Park | Rivers |
| Proposed Bike Racks | Mixed Use | Highway |
| Shopping Center | Special Commercial | Roads |
| Post Office | General Commercial | Current & Past Bike & Ped Projects |
| Existing Public Shower | Neighborhood Commercial | |
| Library | High Density Residential | |
| Proposed Public Shower | Medium Density Residential | |
| Proposed Park & Ride | Low Density Residential | |
| Existing Park & Ride | Open Space | |



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Cartographic Design By: K. Langford | Transportation Department

Figure 13

**Bikeways and Trails Plan
Proposed Bike Routes**

Columbia Circulation Improvement Plan Existing Conditions

4.0 Community Outreach

Community outreach is an integral part of any community planning document. Providing multiple venues for community input throughout the planning process increases community support for the document and its contents. A comprehensive community outreach strategy was employed to promote public participation. A summary of this methodology and the input collected is presented in this section. A more detailed discussion of the outreach conducted for the CCIP can be found in Appendix "B" (Technical Memorandum No.2 – Outreach Methodology), Appendix "C" (Technical Memorandum No.3 – Summary of Community Outreach Methods for Community Workshop No.1) and Appendix "F" (Technical Memorandum No.6 – Summary of Community Workshop No.2).

4.1 OUTREACH METHODOLOGY

4.1.1 Outreach Program and Objectives

The objectives of the outreach activities for the CCIP planning process were as follows:

- Create awareness of the project: how land use studies and plans, along with market trends, influence transportation planning decisions; noting where mobility and circulation planning policies can be used to advance the goals and objectives in these planning studies.
- Provide education on Livable Community Planning and alternative modes of transportation and how they can help the TCTC region achieve its land use and transportation goals.
- Facilitate technical review and involvement in the Columbia Circulation Improvement Plan development and explain how it will be used and why.
- Build consensus on the TCTC vision, existing challenges, strategic direction, project concepts, recommended solutions, and implementation priorities

4.1.2 Project Stakeholders and Champions

The CCIP engaged three groups of stakeholders during the planning process. Below are summaries of each of these groups and how they were engaged in the process. The complete stakeholder list (including group designations) for the project was compiled at the first community workshop and has been included in Appendix "G".

First was the traditional transportation planning stakeholder group who are actively involved in transportation projects in Columbia and the County. This group was composed of members of the Tuolumne County Transportation Council, Tuolumne County Planning Department, Tuolumne County Public Works and Caltrans. Members from this group were involved in formal technical review of the draft documents with many serving as Steering Committee members.

Second were organized groups of individuals who have a vested interest in circulation and transportation planning through past county planning efforts. This group consisted local

boards/councils groups, environmental groups, historical groups, the bicycle community, etc. These groups were engaged through the public workshop process with members from several of these groups also serving as Steering Committee Members.

The third group encompasses others that are interested in transportation planning in Columbia but are not organized into established groups. This group consisted of Columbia residents, business owners, and other underrepresented groups (including Social Service Transportation Advisory Council and Tribal Governments). These individuals were engaged through their participation and input in the two community workshops.

4.1.3 Steering Committee Meetings

As part of the community outreach methodology for the CCIP planning effort, a steering committee was assembled from key representatives in the Columbia Community. The role of the project steering committee was to guide the development of the CCIP by soliciting ideas and concerns of represented organizations and providing progressive and innovative ideas to Stantec and the community. The committee was composed of a multi-disciplinary, multi-institutional participatory group with members selected by the TCTC. Throughout the CCIP planning process the committee worked with Stantec and the general public to accomplish the goals established by the TCTC.

A total of five steering committee meetings were held at various stages throughout the planning process. Draft documents were submitted to steering committee members in advance of the meetings to allow review prior to discussion at the meetings. Comments received at the meetings as well as written responses submitted by committee members were incorporated into revised documents. This process allowed for oversight and public input throughout the planning process. The complete list of CCIP Steering Committee members can be found in Appendix "G".

An important role of the Steering Committee was to provide input on the gaps and potential solutions in the existing Columbia circulation network. This input was an important contributor to developing the proposed solutions in Technical Memo No. 4.

4.1.4 Community Workshops

Two community workshops were held as part of the CCIP planning process. The dates of these workshops were January 29, 2009 and April, 15 2010. These community workshops allowed everyday residents of the Columbia community to have an active voice in shaping the content of the CCIP. Brief summaries of the workshops are provided below. Detailed summaries of the workshops can be found in Appendices "C" and "F" respectively. Summaries of comments received can be found in the Transportation Solutions section of this document.

4.1.4.1 Community Workshop No. 1

The CCIP Community Workshop No. 1 was held on January 29th, 2009 at the Columbia Elementary School, which is centrally located within Columbia. The workshop was divided into three major segments: 1) Introductions and presentation of Existing Conditions, 2) presentation of Livable Community and Smart Growth Principles, and 3) A Breakout Session to identify and discuss elements or improvement which could improve Columbia's "livability" and circulation. Several visual displays and maps were available to inform attendees of "study area" boundaries, as well as other pedestrian and bicycle related planning projects currently taking place throughout the County.

Participants were encouraged to participate in sharing their views in the breakout sessions held during the later stages of the meeting. During the meeting, at the breakout sessions and afterwards, many residents and business owners shared their personal experiences with regards to driving, biking, walking and horseback riding in Columbia. Input was collected regarding gaps in the current circulation network as well as potential solutions that workshop participants felt could help fill these gaps. Based on a workshop sign-in sheet and observation of the number of persons attending, more than 30 local residents and interested parties attended this first Community Workshop.

Technical Memorandum No. 3 – Summary of Outreach Efforts for Community Workshop No. 1 is a detailed summary of the outcomes from this workshop. It can be found in Appendix "C" of this document.

4.1.4.2 Community Workshop No. 2

Community Workshop No. 2 was held April 15, 2010. The focus of the workshop was to collect community input on the draft Columbia Circulation Master Plan. The workshop allowed the opportunity for the community to provide valuable input on the project descriptions and prioritization methodology used to define and rank the projects. The input collected at this community workshop was incorporated into the Project Prioritization, Project Descriptions, and Special Planning Issues of various projects.

Technical Memorandum No. 6 – Summary of Outreach Efforts for Community Workshop No. 2 provides a detailed summary of the outcomes from the second workshop. It can be found in Appendix "F" of this document.

4.1.5 Project Awareness and Education

As part of the outreach methodology for the CCIP, awareness and education was a key element in attracting community members to the public meetings. The comprehensive awareness and education methodology used for the CCIP project included use of the TCTC website, a stakeholder email list and notification process, technical memorandums, PowerPoint presentations, 'save the date' emails, and a press kit to advertise community meetings. Below are summaries of each of the components of this methodology.

4.1.5.1 Project Web Site

The project utilized the TCTC web site for posting project information. The web page was used as an educational and project awareness tool. It included all materials prepared for public meetings including meeting schedule, meeting notices, and agendas, meeting notes, the meeting PowerPoint presentations, all deliverables that require review and comment will be posted to the web site. Once documents are updated, they will be replaced with the newer version to maintain version control unless TCTC can accommodate an archived report file. All stakeholders will be directed to the web site by an email notification list with appropriate notices.

4.1.5.2 Stakeholder Email List and Notification Process

The stakeholder email list will be initially developed using the rosters of names provided by TCTC and other interested parties as noted above. The list will be updated as needed during the course of the project. The email list will be the primary form of communication to notify stakeholders of meetings, availability of deliverables, and review timeline and deadline for comments.

4.1.5.3 Technical Memorandums

Six technical memorandums were prepared, at major project milestones, in consultation with the TCTC. The purpose of the memorandums was to convey awareness and educate the community as to the progress of the Columbia Circulation Improvement Plan. These technical memorandums were reviewed and commented upon by TCTC and the project Steering Committee at various times throughout the process. The memorandums were then revised and final drafts were submitted. The final technical memorandums have been included in appendices "A" through "F".

4.1.5.4 PowerPoint Presentations

PowerPoint presentations were developed to convey the messages and present agenda items identified in CCIP meetings. The PowerPoint presentations were developed specifically for each meeting beginning with the Community Workshop presentation; and were modified as needed for each subsequent meeting.

4.1.5.5 Save the Date Email

A "Save the Date" email was sent out to all project stakeholders and steering committee members electronically to remind them of meetings and workshops (following the first community workshop, as applicable). These were intended to increase awareness and attendance of the meetings.

4.1.5.6 Press Kit

A "Press Kit" was developed that was used to inform the local media outlets about the Columbia Circulation Improvement Plan Community Workshop meetings. This Press Kit included flyers, postcards, radio spots, and newspaper articles and was intended to increase awareness and attendance of the workshops.

4.2 OUTREACH RESULTS SUMMARY

The input collected at the steering committee meetings and two community workshops are summarized in this section. Additionally summarized in this chapter is the input gathered from the TCTC and past planning documents regarding gaps and potential solutions. Collectively the gaps and potential solutions from these meetings and past planning documents along with field observations and input from Stantec transportation and planning professionals formed the foundation for the Transportation Solutions section of the CCIP.

4.2.1 Gaps and Solutions Identified at Steering Committee Meetings

The first Steering Committee meeting was held on March 27, 2008. During this meeting the Steering Committee members were asked to define and provide input on the existing circulation gaps in the Columbia circulation network. The gaps identified in this meeting along with a number of gaps identified in the second meeting on May 29, 2008 are included below.

- There is a need to perform a feasibility analysis studying alignments of a potential Parrotts Ferry Road bypass to alleviate high volumes of vehicular and truck traffic in the historic district.
- There is a community desire to designate a heritage corridor from the Pedro Wye to North Airport Road.
- There is a need to mitigate the impacts of parking on the historical mission of the State Historic Park.
- There is a need to develop Park-n-Ride lot/s
- There is a need to develop a transit center
- There is a need to develop a shuttle bus service between the main activity areas in the Columbia Planning Area (College, Airport, State Historic Park, etc.)
- There is a need to develop alternative access routes to the College to alleviate college traffic on Jackson Street through the State Historic Park.
- Columbia Elementary School does not have a secondary access point.
- The south entrance of the Columbia Elementary School parking lot does not function well and creates congestion and pedestrian/traffic conflicts.
- Pedestrian access to the school along Parrotts Ferry Road is limited to a narrow roadway shoulder; no adequate separation of pedestrian facilities and vehicle travel lanes.
- There is a need to connect the following activity centers in Columbia with pedestrian and bicycle facilities: Columbia College, Columbia Elementary School, Columbia State Historic Park, Sonora, and Columbia Airport.
- Safety is a concern at the left turn into the college and sight distance is a problem.
- Interpretive trails in the State Historic Park are not ADA compliant.
- There is a need to address equestrian facility deficiencies.
- General need for better pedestrian movement along Parrotts Ferry Road.
- There is a need to replace the asphalt pavement in the State Historic Park with some material mimicking a dirt road to enhance the historic appearance.

- Desire to move the downtown parking lots out of the State Historic Park to eliminate the presence of automobiles (noted: Parrotts Ferry/Broadway bypass should happen first)
- Desire to improve lighting in the Columbia College parking lot for safety reasons. (Noted: need to be dark sky compliant and be aware of astronomy students use of the lot).
- Smith trail by Columbia Elementary is not ADA compliant

4.2.2 Gaps and Solutions Identified at Community Workshop No.1

Community Workshop No. 1 was held on January 29, 2009 at Columbia Elementary School. This workshop gave the public an opportunity to identify personal transportation challenges and provide additional insight to the existing transportation roadway gaps. After a PowerPoint presentation, outlining the existing transportation conditions in the community, attendees participated in 5 topic-related breakout groups to discuss circulation, transportation and land use characteristics in Columbia. Based on notes taken during the session, the participants identified and discussed the following issues and gaps in Columbia:

- No definable community or village center for the Community (diverse opinions were given about whether or not this was an actual gap)
- Pathways from the Airport to the State Park are deficient and need improvement
- Lack of bicycle rental facilities which would encourage alternative transportation.
- Lack of pedestrian/bicycle facilities connecting the various developments along Parrotts Ferry Road, Italian Bar Road, around the State Park, and Yankee Hill Road.
- Need for a campaign to encourage alternative transportation, coordinated by TCTC and other community/county organizations.
- Wayfinding signage is lacking on trails throughout Columbia to indicate where trails ultimately lead to.
- Traffic conditions along Parrotts Ferry, Main Street, Fulton Street, Bigler Street, and State Street could benefit from traffic calming measures.
- Yankee Hill, Sawmill Flat, and Parrotts Ferry Road are in need of pedestrian facilities.
- A walking trail between the State Park and Columbia College is needed.
- There is a desire to reduce the amount of college traffic on Sawmill Flat Road.
- Tour bus traffic needs to be planned (specific deficiency not identified).
- Desire for entry statement with landscaping and monuments at the Pedro Wye.
- Truck traffic at Sky Mobile Home Park is a particular issue. (conflict not specified).
- Traffic conflicts are encountered at Church Lane and Parrotts Ferry Road.
- Lack of pedestrian facilities between the hotel, post office and the residential areas to the west.
- Pedestrian and bicycle facilities are lacking throughout the Community.
- Excessive noise and traffic is encountered in front of the elementary school.
- A bypass of the State Historic Park on Parrotts Ferry Road is desired.
- Alternative modes of transportation from the Airport to the State Historic Park are needed.
- There is a lack of public access to the horse trails at the Springfield Estates.
- There is an unrealized opportunity to develop trails along the various water ditches in Columbia.

- Maintenance of trails is a fiscal problem that needs to be addressed.
- A trail is needed that connects Sawmill Flat Road to the Columbia College campus (alignment not specified; moving northeasterly from Sawmill Flat noted).
- Horses and bikes using the same trails in the Community has been a compatibility issue.
- There is an unrealized opportunity to develop trails along the railroad right-of-ways.
- Lack of horse trailer staging areas in Columbia.

4.2.3 Gaps and Solutions Identified by the TCTC

In 2006-07, the Tuolumne County Transportation Council (TCTC) allocated funding from its budget to prepare a Circulation Improvement Plan for the community area of Columbia. In the Request for Proposals the TCTC provided a project justification/need statement and a results/benefits statement for the CCIP which together identified several gaps in the current circulation system in Columbia. The gaps identified were as follows:

- High volumes of vehicular and truck traffic make crossing Parrotts Ferry Road difficult to cross in the historic district.
- General lack of sidewalk and bicycle facilities makes non-motorized circulation unappealing at best.
- Limited transit services in Columbia.
- Lack of an adequate transportation plan for the Columbia area may inhibit the viability of housing, industrial and commercial properties identified in the General Plan.
- Current facilities may not be adequate to handle the major expansions planned at Columbia College.
- Need for better connectivity of Columbia Community Plan with transportation plans.
- A blueprint for transportation enhancements that will be included in the next Regional Transportation Plan (RTP) is needed.
- A gateway beautification project beginning at SR49 and continuing to Columbia State Historic Park is needed.
- The Columbia Airport is a regional airport and its future needs to be addressed.
- There is a need for context sensitive transportation solutions that eliminate chokepoints and protect the integrity of historic buildings adjacent to Parrotts Ferry Road.
- There is a need for a short-term transit capital improvement plan for Columbia.
- There is a need for a financing plan that ensures the maintenance of existing and development of future transportation infrastructure.
- Tuolumne County has recently been designated non-attainment for the National 8-Hour Ozone Standard; to assist in reaching attainment for air quality, transportation facilities are needed to encourage people to walk, bicycle or take transit.

4.2.4 Gaps and Solutions Identified in Past Planning Documents

Gaps identified in past planning documents were also referenced in the preparation of this document. The incorporation of gaps and solutions identified in past planning documents is an important aspect of the CCIP planning effort. In order for the CCIP to meet the stated goal of

making Columbia a more involved partner in the greater local community it is important to develop plans for the community that are effectively coordinated within the larger planning context of the County. Gaps identified in the following documents were incorporated into recommendations for potential solutions:

- Tuolumne County General Plan: Circulation Element (1996)
- Columbia Community Plan (2009)
- Tuolumne County Bikeways and Trails Plan (2006)
- Tuolumne County Recreation Master Plan (1996)
- Tuolumne County Transit Development Plan (2002/03-2008/09)
- Columbia State Historic Park General Development Plan (1979)

Note: potential solutions identified in these past planning documents can be found in the “Relevant Studies and Reports” section of this document.

4.2.5 Gaps Summary

As part of the prioritization strategy for this project the lists of gaps identified during the CCIP planning process were refined down to a list of ten more generalized gaps. These generalized gaps summarize the large number of specific gaps and projects recommended during the CCIP planning process. This was done as part of the prioritization methodology in which projects were awarded higher prioritization points for their ability to fill multiple community transportation gaps (see Prioritization Methodology, section 5.2.2). The list of summarized gaps used in the prioritization of the projects was as follows:

- An adequate transportation plan is needed for the community
- Facilities/programs that encourage alternative transportation are needed
- Wayfinding signage is lacking in the community
- Enhanced safety lighting is needed in the community
- Improved vehicular flow/access to community destinations is needed
- Parking capacity is inadequate
- Accessibility of the circulation network needs improvement
- Lack of a definable “village center”
- Traffic volumes are causing undesirable conditions
- Community in need of beautification projects along transportation infrastructure
- Need funding for maintenance and transportation infrastructure
- Alleviation of vehicular chokepoints is needed
- Improved historic and/or aesthetic image of the transportation network is needed

5.0 Transportation Solutions

5.1 PROPOSED SOLUTIONS

The proposed solutions section identifies the recommended approach for addressing the gaps identified in Columbia's circulation network. The section includes solutions identified in the public outreach process, steering committee meetings, past planning documents, and those identified by Stantec. Refinements and prioritization of the projects will occur as part of the remaining CCIP planning process. Solutions are organized into general categories, sub-categories, and individual projects.

General Categories: The solutions are divided into six general categories: Highway and Road; Public Transit; Airport, Bicycle and Pedestrian; Equestrian; and Other. The first five general categories represent the different travel modes in Columbia. The 'Other' category addresses general projects not easily categorized into one of the first five.

Sub-categories: Each general category is further divided up into sub-categories (see individual sections). Each sub-category was developed in direct response to the different gaps that were identified during the CCIP planning process. The philosophy behind this approach allows for maximum flexibility of the document in defining future projects. As funding availability and requirements will vary over time, community representatives, engineers, planners and designers will be able to tailor different combinations of projects to best fit the funding source.

Individual Projects: Each project has been given a CCIP project ID number and a project name. The CCIP project ID number is an abbreviation which corresponds to the sub-category (IG, IE, SE, etc.) and order (01, 02, 03, etc.) in which it can be found in the current document and on the project maps (Figure 14) at the end of this section. It can also be used to be reference the project in 'shorthand' language. Each project has also been given a 'name' which attempts to generalize the location and/or intent of the project. These names are proposed to be the publicly referenced titles for the projects. Each project includes a 'project description', a 'need/justification' statement, and a 'special planning issues' statement. The purpose and value these statements are as follows:

Project Description: Ensures that the content of the proposed project is clearly communicated (study, design, construction, design/construction, etc). For studies, it describes what services are assumed to be completed as part of the study. For physical improvements it describes the details of the improvements as calculated in the cost estimate. Clear communication of this information is essential to ensure that the general project approach and content of the project are agreed upon by the project stakeholders.

Need/Justification: Ensures that the need and justification for the facility is properly identified and clearly communicated. This helps document the gaps identified during the CCIP process and how they are being filled by the project. This section also helps future community representatives, engineers, and designers understand the intent of the proposed improvements which can be expected to increase the quality of the facility

upon implementation. The statement helps in identifying potential grant funding sources and was also useful during the prioritization process.

Special Planning Issues: Identifies opportunities for coordination with adjacent CCIP projects and/or physical constraints that the future project team should take into consideration during project implementation. This section is part of the holistic planning approach of the CCIP, and is critical to the successful implementation of each project. With the various adjacent CCIP projects, lead agencies, funding sources, timeframes for implementation and physical conditions the implementation of each project will face a variety of challenges. This section attempts to identify these challenges to the greatest extent possible, affording the Columbia Community and future project teams an increased likelihood of successfully implemented, well coordinated projects.

With each of the three statements above provided for each project, this 'potential solutions' section provides a clear, concise, yet flexible vision for addressing the gaps identified thus far in the CCIP process. Table 3 at the end of this section provides a summary of the potential projects including CCIP identification number, name and description, the route/segment/location, approximate size of the project, cost, lead agency/s, potential funding sources, relationship to other CCIP segments, timeframe for implementation, and the project and/or gap identification source. The timeframe for implementation is categorized as short-term (0 to 3 years), mid-term (3 to 10 years), or long-term (over 10 years) and is based on the project prioritization as discussed in Section 5.2.

Estimated Costs: A rough-order-of-magnitude opinion of probable costs (hereafter referred to as an 'estimated cost') has been prepared for each project. The process for establishing estimated costs include assumptions about the content of various efforts, which are intended to be communicated in the 'project description' for each project. For consistency the following assumptions have been made for construction contingency and design fees (for applicable types of projects). Construction contingency is currently set at 35% of estimated hard costs. Design fee is currently set at 15% of estimated hard costs. Costs for studies are based on past professional experience with similar types of projects.

5.1.1 Proposed Highway and Road Projects

This section proposes solutions to the gaps identified in the CCIP planning process related to the function and/or appearance of the roadway and parking network in Columbia as it relates to automobiles. More specifically the projects relate to the actual travel surfaces, alignments and/or capacity of the road and parking network for automobiles. The section includes potential projects relating to Intersection Geometry (IG), Intersection Enhancement (IE), Historic Heritage (HH) Enhancement, Parking Capacity (PC), Alternative Access (AA), and Bypass Routes (BR).

5.1.1.1 Proposed Intersection Geometry (IG) Projects

During the CCIP planning process, it was identified that the geometry of many of the existing roadways in Columbia needed revision in order to solve existing circulation problems and accommodate the facilities proposed in the CCIP. The geometries of many existing intersections

(wide swing turn lanes, lack of crossing facilities, long crossing distances etc.) discourage use by cyclists and pedestrians. The addition of the bicycle and pedestrian facilities proposed in the CCIP without the improvement of these intersections could lead to underutilization of the facilities, misuse of the facilities, and/or conditions potentially resulting in conflicts between users and is not recommended. The following projects are potential solutions for addressing the intersection geometry issues in Columbia.

IG-01 – Pedro Wye Intersection Improvement Study

Project Type: Study

Project Description: This project proposes a study to analyze potential intersection geometry improvements at the Pedro Wye that accommodate the large number of planning projects and community goals identified in the CCIP planning process. The study would look at two to three new geometries of the intersection to determine which could best accommodate the future projects for improved LOS, safety, development potential of adjacent land and community identity. Potential geometries previously identified include the elimination of the northbound swing lane with a more traditional expanded signalized intersection or a traffic circle/roundabout solution. The estimated cost provided includes the study only as described above. *Note that in January 2010, the Caltrans signalization project at this intersection was complete. Although the signal improves safety at the intersection, this geometry improvement project is still needed.*

Need/Justification: The Pedro Wye has been identified as an intersection of critical importance to the Community of Columbia. Numerous traffic, bicycle, pedestrian, gateway, heritage and land use related projects are proposed at/near the location. Additionally, a significant traffic conflict exists at the intersection of Parrotts Ferry Rd, Union Hill Road and the northbound SR49 swing lane. The complexity of the project and high degree of importance to the Community of Columbia warrants a detailed study to increase the likelihood that the proposed projects are well coordinated, properly integrated, and that the viability of the adjacent land for development is maximized.

Special Planning Issues: This project interfaces with a large number of CCIP and County planning projects. These include the planned Caltrans signalization of the intersection (Completed in 2010), the expansion of SR49 east of the intersection to four lanes (RTP), expansion of Parrotts Ferry Road from SR49 to Sawmill Flat to four lanes (RTP), the Columbia Gateway Monument Project (IE-01), bicycle/pedestrian facilities along Parrotts Ferry Road linking Columbia to Sonora (BP-01), bicycle/pedestrian facilities along SR49 linking Columbia to Sonora (RTP) and a desire for adjacent retail developments at the Pedro Wye (CCP). The study area will include the Caltrans right of way at the Pedro Wye and may also include the adjacent County right of way.

Estimated Cost: \$25,000

Potential Lead Agency: TCTC/Caltrans

Timeframe for Implementation: Partially complete in 2009, remainder is short-term

IG-02 – Columbia ‘Star’ Intersection Improvement Study**Project Type: Study**

Project Description: This project proposes a study to analyze potential intersection geometry improvements at the intersection of Parrotts Ferry Rd, Airport Rd, Springfield Rd, and Howser Lane (the Columbia ‘Star’) that accommodate the large number of planning projects and community goals identified in the CCIP planning process. The study would look at two to three new geometries of the intersection to determine which could best accommodate the future projects for improved LOS, safety, development potential of adjacent land and community identity. The estimated cost provided includes the report only as described above.

Need/Justification: It is recommended that the current intersection geometry be improved to increase safety and encourage greater use in accommodating the planned Jamestown-Columbia Bicycle/Pedestrian Connector (RTP) and the Sonora-Columbia Bicycle/Pedestrian Connector (CCIP), primarily in the southbound direction. If the Sonora-Columbia Bicycle Pedestrian Connector were to be developed without altering the geometries of this intersection, then southbound riders and/or pedestrians would need to navigate past/through nine (9) consecutive conflicting automobile traffic movements. This condition needs improvement for the safety of cyclists, pedestrians and automobiles/truck traffic. Future development of parcels adjacent the intersection per the land uses in the General Plan would likely only exacerbate the current problems by creating additional ingress egress points and traffic movements. This may compromise the viability of the parcels for development, potentially weakening the economic sustainability and livability of the Community.

If feasible, it is recommended that this project be incorporated into the Parrotts Ferry Road Bypass Alternative Feasibility Study (BP-01) and/or the Columbia College Secondary Entry Feasibility Study (AA-01). This intersection was designated in the RTP as a potential Bypass starting point. This intersection may soon need to support traffic to/from the public recreation fields at Columbia Elementary via the approved secondary access road to the Elementary. There is a possibility of a second Columbia College Entry being studied at Howser Lane per project AA-02 of this report. The parcel south of Howser Rd. is being studied as a preferred location of project TF-01. With the number of proposed projects converging at this location and in the interest of Community safety and economic sustainability, a full intersection improvement study should be conducted either as an independent project or as part of the Parrotts Ferry Road Bypass Alternative Study (recommended). It is recommended that this report be completed prior to the design and construction of projects BP-02, BP-03, and TF-01. Streetscape improvements such as street trees and enhanced pavement treatments at proposed bicycle/pedestrian crossings should also be addressed as part of the study.

Special Planning Issues: See Need/Justification above. The grade transition from Airport Road onto Parrotts Ferry Rd should be addressed in any proposal for intersection improvements. Preliminary alignments under consideration include a roundabout and the realignment of the roads (Howser Lane and Airport Road) to be more of a traditional four-way intersection. Springfield Road would be realigned to intersect Parrotts Ferry Road to the south at/near the driveway to the gas station.

Estimated Cost: \$25,000

Potential Lead Agency: TCTC

Timeframe for Implementation: Short-term

IG-03 – Columbia College Intersection Improvement Project

Project Type: Design/Construction

Project Description: This project proposes the design and construction of improvements at the intersection of Sawmill Flat Rd. and Columbia College Dr. to address current automotive conflicts and future CCIP projects for improved LOS and safety. The project could potentially include turn lanes, acceleration/deceleration lanes, stop signs, widened shoulders and pedestrian/bicycle crossing facilities. The estimated cost is for design and construction.

Need/Justification: The intersection currently experiences heavy delays due to the lack of left hand turn lanes and acceleration/deceleration lanes which cause both college-bound and non-college-bound traffic to stack during peak traffic times. Recently completed on-campus expansions, future planned facilities, and increased enrollment projections will likely cause Sawmill Flat to operate at a LOS D by 2030 (RTP). Additionally the planned bicycle/pedestrian facilities along Sawmill Flat Rd from Parrotts Ferry Road to Columbia College Drive would increase the need for crossing facilities at the intersection.

Special Planning Issues: The project interfaces with a number of planned facilities which should be taken into account during the design phase including IE-06 and BP-06. Coordination with the on-campus pedestrian and bicycle improvement planning effort due to begin in the Fall of 2009 should be encouraged for this project. If enhanced crossing facilities at project IE-06 are not constructed in parallel, then the provision of minimum crossing facilities at the driveway and across Sawmill Flat Rd is recommended to encourage proper usage of the facilities.

Estimated Cost: \$75,000

Potential Lead Agency: Tuolumne County/Columbia College

Timeframe for Implementation: Mid-term

IG-04 – Columbia Elementary South Exit Improvement Project**Project Type: Design/Construction**

Project Description: This project proposes the reconfiguration of the elementary school's south exit to include the construction of an acceleration lane for approximately 125' south of the exit. The existing drainage headwall immediately south of the driveway would also need to be reconstructed fifteen to twenty feet to the west which would involve significant cost expenditures and potential environmental planning issues. The estimated cost includes design and construction of the facility.

Need/Justification: This project is recommended to alleviate the bottleneck effect that currently occurs at the location during periods of heavy use.

Special Planning Issues: This project potentially interfaces with several CCIP projects including the trailhead of PO-02, the bicycle/pedestrian facilities of BP-03, and the crossing facilities of IE-07. The design of the pedestrian/bike crossing at the driveway exit is of critical importance due to the frequent heavy use by school children. Access to the parcel/s adjacent the school to the south presents a potential challenge and also needs to be studied during the design phase. If feasible, it is recommended that these projects be combined into a single scope of work and designed in a single effort. However, if funding limitations preclude a single design effort, it is recommended that the engineer of this facility be made aware of the constraints listed herein.

Estimated Cost: \$225,000

Potential Lead Agency: Tuolumne County/Columbia Elementary

Timeframe for Implementation: Mid-term

IG-05 – Church Lane Intersection Modification Project**Project Type: Design/Construction**

Project Description: This project proposes the design and construction of improvements to the intersection of Parrotts Ferry Rd and Church Lane to address vehicle conflict concerns expressed by area residents. The project could potentially include widening Parrotts Ferry Road to accommodate left turn pockets into the Park and Church Lane, acceleration lanes for merging vehicles, imposing line of sight vegetation restrictions and widening roadway shoulders to improve sight distance. Church Lane could potentially be widened slightly and alignment adjusted to improve sight distance. The estimated cost includes design and construction.

Need/Justification: This location was identified in the workshop as needing modification however the specific issue or solution was not identified. The issue appears to be with southbound traffic on Parrotts Ferry Road coming around the bend near Columbia St and motorist pulling out off Church St into the southbound lane at decreased speeds. Additionally southbound vehicles stopped waiting to turn left onto Church Lane may be causing congestion.

Special Planning Issues: Traffic calming measures at the intersection of Columbia St and Parrotts Ferry Road identified in project IE-03 should help address this issue by slowing southbound motorists on Parrotts Ferry Road. Additional right of way may have to be acquired.

Estimated Cost: \$125,000

Potential Lead Agency: Tuolumne County

Timeframe for Implementation: Mid-term

IG-06 – Sawmill and Parrotts Ferry Intersection Modification Study

Project Type: Study

Project Description: This project proposes the study of improvements to the intersection of Sawmill Flat Rd. and Parrotts Ferry Rd. The project would include analysis of three options for the improvement of the intersection. Option 1 consists of performing a signal warrant to determine if a traffic signal is required. Option 2 would reflect converting the intersection into a three-way stop, and Option 3 would retain the existing stop-controlled west-bound movements. All options would also include turn lanes, acceleration/deceleration lanes, widened shoulders, and pedestrian/bicycle crossing facilities. Each option would include preparing traffic analysis, and a construction cost estimate. A preferred solution would be recommended based on this analysis. The estimated cost is for the preparation of a study.

Need/Justification: It is recommended that the current intersection geometry be improved to improve safety and encourage greater use in accommodating the future widening of Parrotts Ferry Road and the CCIP planned bicycle/pedestrian facilities. The wide swing turn lanes off Parrotts Ferry Rd onto eastbound Sawmill Flat Rd and off Sawmill Flat onto northbound Parrotts Ferry Rd may discourage use of northbound bicycle/pedestrian traffic on Parrotts Ferry Rd as they increase crossing distance. Sawmill Flat Road is projected to operate below County LOS standards in the RTP and intersection improvements may help address resolving this issue.

Special Planning Issues: This project interfaces with a number of projects in the CCIP which will impact the final design including intersection enhancements in IE-02 and bicycle/pedestrian facilities in BP-01, BP-02 and BP-06. The project also interfaces with the planned expansion of Parrotts Ferry Road to four lanes as identified in the RTP. It is recommended that this project be completed at the time of design/construction of the Parrotts Ferry Road widening, IE-01, BP-01, BP-02, or BP-06, whichever comes first. If enhanced crossing facilities at project IE-02 are not constructed in parallel, then the provision of standard crossing facilities in three directions is recommended. If retaining wide swing lanes is desirable, pedestrian refuge islands may be used to allow pedestrians and cyclists the opportunity to stop while crossing smaller segments of roadway. Additionally, a drive-thru coffee shop has been approved at/near the intersection. Ingress/egress of this facility will need to be considered.

Estimated Cost: \$25,000

Potential Lead Agency: TCTC

Timeframe for Implementation: Short-term

5.1.1.2 Proposed Intersection Enhancement (IE) Projects

Intersection Enhancement projects include facilities related to the function and/or appearance of the intersections of automobile, bicycle and/or pedestrian facilities. More specifically these projects relate to the treatment of the roadway surface itself at these locations. These projects serve a variety of functions vital to the safety and character of the overall CCIP facility network including crossings to encourage safety, proper use, and connectivity of bicycle/pedestrian facilities (discourage riding/walking against traffic), visual enhancements as a traffic calming measure, and enhanced entry statements to help achieve the stated goal of increased sense of community pride and identity.

In general, most of these projects are recommended to be implemented as adjacent bicycle and pedestrian facilities are constructed and are often in parallel with adjacent intersection geometry projects. They are identified as independent projects to allow for flexibility in implementation. For instance, an intersection geometry project may be implemented prior to the construction of adjacent bicycle/pedestrian facilities.

IE-01 – Columbia Community Gateway Monument Project

Project Type: Design/Construction

Project Description: This project proposes the design and construction of a freestanding Columbia Community gateway monument at/near the intersection of SR 49 and Parrotts Ferry Road. The project would include a community outreach effort to reach consensus on the preferred location and design content of the monument, preparation of construction plans, and construction of the monument itself. Details of the monument may include but are not limited to the Columbia Community Name, Community Emblem, 'Gem of the Southern Mines' slogan, historic architectural details in accordance with the Columbia Design Guidelines, use of existing and/or imported limestone outcroppings, native landscaping, and uplighting.

Need/Justification: The monument will serve as the primary entry statement to the community communicating a sense of pride and history to motorists, bicyclists, and pedestrians entering Columbia. It was identified in both community workshops and several steering committee meetings as a highly desirable project.

Special Planning Issues: The Pedro Wye is the target of many future planning projects including the expansion of SR49 east of the intersection to four lanes (RTP), expansion of Parrotts Ferry Road from SR49 to Sawmill Flat to four lanes (RTP), reconfiguration of the intersection for improved LOS and safety (IG-01), Bicycle/Pedestrian Facilities along Parrotts Ferry Road linking Columbia to Sonora (BP-01), Bicycle/Pedestrian Facilities along SR49 linking Columbia to Sonora (RTP), and adjacent retail developments (CCP). Due to the large number of planning projects at/near this intersection and the importance of the project to the identity of the community, it is recommended that the project be incorporated into the IG-01 planning

document. If there is a desire to complete the monument prior to and independent of the IG-01 project then the project should identify a site that is least likely to be impacted by future improvements. Coordination with Caltrans will be needed if the desired location is within their right of way at the Pedro Wye.

Estimated Cost: \$100,000

Potential Lead Agency: Tuolumne County/Caltrans

Timeframe for Implementation: Short-term

IE-02 – Parrotts Ferry Rd and Sawmill Flat Rd Crossing Project

Project Type: Design/Construction

Project Description: The project includes installation of enhanced crosswalks and associated signage in three directions. Enhanced facilities would include stamped concrete at the crossings and landscape plantings adjacent to the roadway. The cost estimate includes design and construction of the facility.

Need/Justification: This project should be considered to enhance vehicular traffic's awareness of the Sonora-Columbia College Bicycle Pedestrian Connector users. The enhancements are recommended as the intersection is one of the most high-profile intersections in town for college-bound traffic. Making a more pronounced statement at this location supports CCIP objective of enhancing sense of Community pride.

Special Planning Issues: This project interfaces with a number of projects in the CCIP that will impact the final design including intersection geometry alterations in IG-06 and widened shoulders in BP-01, BP-02 and BP-06. The project also interfaces with the planned expansion of Parrotts Ferry Road to four lanes as identified in the RTP. It is recommended that this project be completed at the time of design/construction of the Parrotts Ferry Road widening, IG-06, BP-01, BP-02, or BP-06, whichever comes first. Additionally, a drive-thru coffee shop has been approved at/near the intersection. Ingress/egress of this facility as it is related to bicycle and pedestrian traffic will need to be considered

Estimated Cost: \$90,000

Potential Lead Agency: Tuolumne County

Timeframe for Implementation: Mid-term

IE-03 – Columbia State Historic Park Gateway Enhancement Project South

Project Type: Design/Construction

Project Description: This project proposes enhancements to the intersection of Parrotts Ferry Rd. and Columbia St. The enhancements recommended include stamped asphalt or concrete at the intersection, enhanced planting areas including street trees, historically 'compatible' lighting standards and enhanced signage such as "Now Entering Columbia Historic District" and/or "Please Slow for Pedestrians". It is also recommended that the existing grade separated pedestrian facility (sidewalk) be redesigned at a lower elevation and further west. The design of the new pedestrian facility would incorporate a more historically sensitive aesthetic appearance

with brick or rock façade and tan-colored surfacing. The estimated price includes the design and construction of the enhancements.

Need/Justification: The intersection represents the transition into the historic core of Columbia, therefore enhanced traffic calming and visual cues are desirable to discourage speeding and encourage interest in exploring what the community has to offer. The project is also needed to define the southern terminus of the more intensive streetscape enhancement efforts in the historic district.

Special Planning Issues: The intersection occurs along a turn with limited visibility that is exacerbated by the elevated pedestrian facility to the west. It is recommended that this facility be redesigned to provide better visibility for motorists entering the pedestrian zone to the north and motorists approaching the pedestrian crossing to the south near the post office. This will serve to maximize the available right of way for planned bicycle and pedestrian improvements. Streetscape enhancements in authentic historic district in general, are at risk of over-commercializing or 'cheapening' the historic ambience if not done sensitively. It is recommended that the design phase of this project involve key stakeholders, at least one design charrette, and community meetings to review the proposed design. The improvements suggested herein should be tested and refined through stakeholder and public input and through the use of visual simulation during the design phase. The project also interfaces with several CCIP projects including IG-05, BP-03, BP-04, HH-02, HH-03, and PC-02. The design of the facility should be sensitive to these planned improvements to the greatest degree possible and combined/parallel design efforts are encouraged. The accommodation of tour and school buses must also be taken into consideration at this location. A wide swing turn lane with a refuge island may be appropriate to provide for crossing of the northbound bicycle and pedestrian traffic and provide the radius necessary for large vehicles. Certain elements of the design, such as the lighting, may need to be constructed in a separate phase, which would occur following the construction of the Parrotts Ferry Road Bypass. Sensitivity to additional lighting in the community was observed at Community Workshop No.2.

Estimated Cost: \$73,000

Potential Lead Agency: Tuolumne County/Columbia SHP

Timeframe for Implementation: Short-term

IE-04 – State St and Broadway St Intersection Enhancement Project

Project Type: Design/Construction

Project Description: This project proposes enhanced crossing facilities at the intersection of Broadway and State St. The enhancements recommended include stamped asphalt or concrete crossing facilities at the intersection, pedestrian crossing signage, enhanced planting areas including street trees where appropriate, and historically 'compatible' lighting standards. The estimated price includes the design and construction of the enhancements.

Need/Justification: The intersection represents a key pedestrian crossing in the historic core of Columbia, therefore enhanced traffic calming and visual cues are desirable to discourage speeding and encourage interest in exploring what the community has to offer. With the addition

of adjacent bicycle and pedestrian facilities the use of the intersection is expected to increase and improved dedicated crossing facilities are recommended.

Special Planning Issues: The project interfaces with several CCIP projects including bicycle/pedestrian facilities at BP-04, historic heritage enhancements at HH-01 and HH-02. Narrow right of way conditions exist at this location. The steep grade transition between the Broadway and State St should be addressed in this project, BP-04, HH-01, or HH-02, whichever is implemented first. Certain elements of the design, such as the lighting, may need to be constructed in a separate phase, which would occur following the construction of the Parrotts Ferry Road Bypass.

Estimated Cost: \$69,000

Potential Lead Agency: Tuolumne County/Columbia SHP

Timeframe for Implementation: Short-term

IE-05 – Columbia State Historic Park Gateway Enhancement Project North

Project Type: Design/Construction

Project Description: This project proposes enhancements to the intersection of Parrotts Ferry Rd., N Gold St. and Green St. The enhancements recommended include stamped asphalt or concrete at the intersection, pedestrian crossing facilities, pedestrian crossing signage, enhanced planting areas including street trees, historically ‘compatible’ lighting standards and enhanced signage such as “Now Entering Columbia Historic District” and/or “Please Slow for Pedestrians”.

Need/Justification: The intersection represents the transition into the historic core of Columbia, therefore enhanced traffic calming and visual cues are desirable to discourage speeding and encourage interest in exploring what the community has to offer. The project is also recommended to define the northern terminus of the more intensive streetscape enhancement efforts in the historic district.

Special Planning Issues: The project interfaces with several CCIP projects including bicycle/pedestrian facilities at BP-04, historic heritage enhancements at HH-01 and HH-02. The design phase of this project should consider site distance when determining which pedestrian crossings to provide. Parrotts Ferry Road in particular has two curves at this location potentially limiting sight distance. Certain elements of the design, such as the lighting, may need to be constructed in a separate phase, which could occur following the construction of the Parrotts Ferry Road Bypass. Sensitivity to additional lighting in the community was observed at Community Workshop No.2.

Estimated Cost: \$105,000

Potential Lead Agency: Tuolumne County/Columbia SHP

Timeframe for Implementation: Short-term

IE-06 – Sawmill Flat Rd and Columbia College Crossing Project**Project Type:** Design/Construction

Project Description: The project would include installation of enhanced crosswalks and appropriate signage in three directions. Enhanced facilities would include stamped concrete at the crossings and landscape plantings adjacent the roadway. The cost estimate includes design and construction of the facility.

Need/Justification: This project should be considered to enhance vehicular traffic's awareness of the Sonora-Columbia College Bicycle Pedestrian Connector users and allow for dedicated crossing of the roadways. The enhancements are recommended as the intersection is one of the more high-profile intersections in town and the primary intersection for College-bound traffic. Making a more pronounced statement at this location supports the community objective to provide facilities that enhance a sense of community pride.

Special Planning Issues: The project interfaces with several CCIP projects including intersection geometry improvements at IG-03 and widened shoulders at BP-06. It is recommended that the project be integrated with improvements in IG-03 if possible. The project is included as a separate CCIP facility out to allow the facility to be constructed independent of IG-03 if desired.

Estimated Cost: \$76,000

Potential Lead Agency: Tuolumne County/Columbia College

Timeframe for Implementation: Mid-term

IE-07 – Columbia Elementary Crossings Project**Project Type:** Design/Construction

Project Description: This project proposes the construction of enhanced bicycle/pedestrian crossing facilities across Parrotts Ferry Road near Columbia Elementary, north and south. The crossings would consist of, at minimum, a stamped asphalt crosswalk and associated signage and street markings to inform drivers of the presence of the facility. The exact locations of the crossings are to be determined pending safety analysis and design. Estimated cost is for design and construction of the facility.

Need/Justification: The project should be considered to enhance vehicular traffic's awareness of Dondero Trail users, school children/adults riding their bikes or walking to/from School along Parrotts Ferry Rd from the north and south, as well as the general public. No such crossing facility currently exists near the school and bicycle and pedestrian activity along Parrotts Ferry Road and Dondero Trail are expected to increase following the bike/pedestrian improvements planned in the CCIP. The only designated crossing facility near the school is approximately 600 ft north of the schools north entry (near the Post Office) and does not facilitate the crossing of Parrotts Ferry Rd for individuals traveling south of the school.

Special Planning Issues: The project interfaces with several CCIP projects including intersection improvements at IG-04, widened shoulders along Parrotts Ferry Rd at BP-03, and Dondero Trail improvements at PO-02. It is recommended that these projects be designed and constructed simultaneously to the greatest extent possible. If this is not possible, it is recommended that the designer of this facility take into account the adjacent planned improvements and produce a design that does not preclude future plans. Enhanced pavement design details should be reviewed by the appropriate agencies/committees and/or established as a standard in the Columbia Streetscape Master Plan project (OT-02). Safety is a primary concern at these locations due to current traffic characteristics: large trucks, periodic high volumes, occasionally high speeds, presence of young children, and site distance issues. Adequate measures must be taken to ensure the locations and designs selected take precautions to maximize safety. The current crossing north of the school (near the Post Office) was identified at Community Workshop No. 2 as needing safety improvements and/or relocation. Access to and from the Post Office was noted by residents as causing some safety concerns. This entry exit is in close proximity to the current crossing. Note: the County discourages mid block crosswalks; approval of the Road Commission will be required for any mid block crosswalk installation.

Estimated Cost: \$10,000

Potential Lead Agency: Tuolumne County/ Columbia Elementary

Timeframe for Implementation: Short-term

IE-08 – Bell Hill Trail Crossing Project

Project Type: Construction

Project Description: This project proposes the construction of a pedestrian crossing facility across Yankee Hill Road at the Bell Hill Trailhead near the Marble Quarry RV Resort. The crossing would consist of a striped crosswalk and associated signage and street markings to inform drivers of the presence of the facility. The estimated cost includes construction only.

Need/Justification: The project is recommended to allow the crossing of Yankee Flat Rd for Bell Hill Trail users. The project will also allow Marble Quarry RV Resort patrons to cross Yankee Hill Rd safely when walking to and from the State Park.

Special Planning Issues: This project interfaces with improved Bell Hill Trail facilities and Yankee Hill Rd shoulder widening at CCIP project PO-01. These projects should be planned simultaneously to the greatest extent possible. Note: the County discourages mid block crosswalks; approval of the Road Commission will be required for any mid block crosswalk installation. At Community workshop No. 2, the owner of Marble Quarry RV Resort identified the potential for improvements to an existing trail south of Yankee Hill Rd that may serve to connect the trail to town without the need for this crossing or improvements to Yankee Hill Rd. This option should be explored further in future improvement efforts.

Estimated Cost: \$1,000

Potential Lead Agency: Tuolumne County

Timeframe for Implementation: Mid-term

IE-09 – Squabbletown Trail Crossing Project**Project Type: Construction**

Project Description: This project proposes the construction of a bicycle/pedestrian crossing facility across Sawmill Flat Road at the proposed Squabbletown Trailhead near the Good Luck Mine Rd. The crossing would consist of a striped crosswalk and appropriate signage and street markings to inform drivers of the presence of the facility. The estimated cost includes construction only.

Need/Justification: The project is recommended to allow the crossing of Sawmill Flat Rd for bicyclists and pedestrians using the proposed Squabbletown Trail facility. The project encourages bicyclists coming from the College to ride on the appropriate side of the roadway to reduce automobile/bicycle conflicts associated with riding against traffic.

Special Planning Issues: The facility interfaces with the widened shoulders at BP-06 and the Squabbletown Trail improvements at BP-08. These projects should be planned simultaneously to the greatest extent possible. It is recommended that the project be implemented as part of, or following the construction of BP-06 as the existing Squabbletown trail is likely to see an increase in traffic following these improvements. Note: the County discourages mid block crosswalks; approval of the Road Commission will be required for any mid block crosswalk installation.

Estimated Cost: \$2,000

Potential Lead Agency: Tuolumne County

Timeframe for Implementation: Mid-term

IE-10 – Melones Waterline Trail Crossing Project/Columbia College Bicycle/Pedestrian South Entry Crossing Project**Project Type: Construction**

Project Description: This project proposes the construction of a bicycle/pedestrian crossing facility across Sawmill Flat Road at the proposed Melones Waterline Trailhead. The crossing would consist of a striped crosswalk and appropriate signage and street markings to inform drivers of the presence of the facility. The estimated cost includes construction only.

Need/Justification: The project is recommended to allow crossing of Sawmill Flat Rd for bicyclists and pedestrians using the proposed Class I Melones Waterline Trail facility. The project encourages bicyclists traveling to the College to ride on the appropriate side of the roadway to reduce automobile/bicycle conflicts associated with riding against traffic.

Special Planning Issues: The facility interfaces with the widened shoulders at BP-06 and the Melones Waterline Trail improvements at BP-09. These projects should be planned simultaneously to the greatest extent possible. It is recommended that the project be implemented as part of, or following the construction of BP-06 as the existing Melones Waterline Trail is likely to see an increase in traffic following these improvements. Note: the County discourages mid block crosswalks; approval of the Road Commission will be required for any mid block crosswalk installation.

Estimated Cost: \$1,000

Potential Lead Agency: Tuolumne County

Timeframe for Implementation: Mid-term

IE-11 – Parrotts Ferry and Marble Quarry Crossing Project

Project Type: Construction

Project Description: This project proposes the construction of three way bicycle/pedestrian crossing facilities across Parrotts Ferry Road at Marble Quarry Rd. The crossings would consist of striped crosswalks and appropriate signage and street markings to inform drivers of the presence of the facilities. The estimated cost includes construction only.

Need/Justification: The project is recommended to allow crossing of Parrotts Ferry Rd for Columbia to Marble Quarry Bicycle/Pedestrian Connector users. The project encourages bicyclists traveling to/from these destinations to ride on the appropriate side of the roadway to reduce automobile/bicycle conflicts associated with riding against traffic.

Special Planning Issues: The project interfaces with the widened shoulders at BP-05. These two projects should be planned simultaneously if possible. It is recommended that the project be implemented as part of, or following the construction of BP-05 as increased bicycle/pedestrian activity will be likely at the intersection.

Estimated Cost: \$3,000

Potential Lead Agency: Tuolumne County

Timeframe for Implementation: Mid-term

5.1.1.3 Proposed Historic Heritage (HH) Enhancement Projects

Historic Heritage Enhancement Projects include roadway and parking projects that are aimed at restoring a more historically accurate appearance of the facilities by replacing modern era asphalt paving surfaces with materials mimicking the original dirt facilities and/or screening facilities not in keeping with the historic period of significance such as parking facilities. These projects are being proposed to improve the community image, increase tourism, and enhance the mission of the SHP which tie into economic stability, growth and increase in job opportunities. A potential product potentially consistent with the objective of the State Park to restore the streets to a historic appearance mimicking dirt is a 'natural looking alternative' surface called TerraPave. It is recommended that a 'test installation plot' be installed of multiple products potentially suitable for achieving the intent of these projects. Evaluations of cost,

maintenance, durability, aesthetics, etc. can then be conducted to help select an appropriate product for projects recommending 'natural looking alternative' surfacing.

HH-01 – Columbia Historic Heritage Street Surface Enhancement

Project Type: Design/Construction

Project Description: This project proposes the replacement of existing asphalt roadway surfaces in the historic district with a paving surface mimicking the historically accurate dirt facilities. Method for replacement is currently assumed to be the grinding and re-compaction of existing surfacing as a base with a two-inch 'natural looking alternative' overlay. Export of excess asphalt surfacing may be required in some locations but is not currently included. As a detailed survey of the limits of the paving surface (existing and desired) does not exist, the quantity included is linear feet (as drawn in Figure 14) by an assumed average width of thirty feet. Cost estimate includes design and construction of the facilities.

Need/Justification: The project is part of the approved Columbia State Historic Park General Development Plan (1979) and is proposed as part of an effort to restore the historic appearance of the Park. These efforts may increase the viability of the Park for tourism generation, the economic viability of the concession operations of the Park, and the attractiveness of vacant and developable parcels in the historic district.

Special Planning Issues: The project interfaces with several CCIP projects including IE-04, IE-05, HH-02, BR-01, BR-02, BP-04, and BO-01. The project should be coordinated with planned drainage and ADA improvements (independent of the CCIP) to the greatest extent feasible. If discrepancies exist in the facilities shown in Figure 14, the facilities identified in the 1979 General Plan take precedence. Funding may require that this project be implemented in phases. Where utilities exist beneath the road surface, it is recommended that water and electrical services be stubbed out to existing parking facilities to support those planned improvement projects (HH-02)

Estimated Cost: \$2,310,000

Potential Lead Agency: Columbia SHP

Timeframe for Implementation: Long-term

HH-02 – Columbia Historic Heritage Parking Enhancement

Projects Project Type: Design/Construction

Project Description: This project proposes the replacement of existing asphalt and gravel parking surfaces in the historic district with a paving surface mimicking the historically accurate dirt facilities. Method for replacement is currently assumed to be the grinding and/or re-compaction of existing surfacing (asphalt or gravel) as a base, with a two-inch 'natural looking alternative' overlay. As a detailed survey of the limits of the paving surface (existing and desired) does not exist, the quantity included is as drawn in Figure 14. The project also includes the screening of the facilities with landscape and the addition of historically compatible parking lot lighting. The assumed quantity of landscape improvement is 15% of the overall parking facility area. The cost estimate includes design and construction of the facilities.

Need/Justification: The project is in line with the approved Columbia State Historic Park General Development Plan (1979) and is proposed as part of an effort to restore the historic appearance of the Park. These efforts may increase the viability of the Park for tourism generation, the economic viability of the concession operations of the Park, and the attractiveness of vacant and developable parcels in the historic district.

Special Planning Issues: The project interfaces with several other CCIP projects including IE-03, IE-04, IE-05, BP-04, and BP-05. The project should be coordinated with planned drainage and ADA improvements (independent of the CCIP) to the greatest extent feasible. If it is not feasible to construct landscape and lighting improvements at the time of resurfacing, adequate irrigation and electric sleeves should be installed and capped to avoid increased costs to future streetscape improvements.

Estimated Cost: \$2,584,000

Potential Lead Agency: Columbia SHP

Timeframe for Implementation: Long-term

HH-03 – California Heritage Corridor Designation Project

Project Type: Construction

Project Description: Obtain Heritage Corridor Designation under Chapter 14.14 of the Tuolumne County Ordinance Code and/or the California Recreational Trails Act (Section 5070-5077.8 of the California Public Resources Code) for the stretch of Parrotts Ferry Rd from SR49 to N Airport Rd. The cost estimate includes the fabrication and installation of six signs. Staff and/or volunteer time to prepare the application/s have not been included in the estimated cost.

Need/Justification: California Heritage Corridors are defined as ‘a regional, state, or nationwide alignment of historical, natural, or conservation education significance, with roads, state and other parks, greenways, or parallel recreational trails, intended to have guidebooks, signs, and other features to enable self-guiding tourism, and environmental conservation education along most of its length and of all or some of the facilities open to the public along its length’. The project is therefore desirable to enhance awareness and tourism along the Parrotts Ferry Rd corridor for both drivers and those accessing the maps/materials published pursuant to the California Recreational Trails Act.

Special Planning Issues: California Heritage Corridor designation requires coordination with the California Recreational Trails Committee and Caltrans. The project would link with SR49, an established California Heritage Corridor recognized by Caltrans and officially known as the ‘Golden Chain Highway’.

Estimated Cost: \$5,000

Potential Lead Agency: Columbia SHP

Timeframe for Implementation: Long-term

5.1.1.4 Proposed Parking Capacity (PC) Projects

Parking capacity projects are proposed to increase the parking capacity of various locations in Columbia. These projects will help address the stated gap of lack of adequate parking facilities during periods of peak usage. Use of narrow roadway shoulders is currently a significant concern. The following projects propose to mitigate these conditions. This will allow the shoulders to be used for the bicycle and pedestrian facilities, as opposed to being consumed by overflow parking. The increase in available parking could occur in concert with or in encouragement of the desired infill projects in the downtown area as identified in the Columbia Community Plan.

PC-01 – Gold and State Parking Facility North**Project Type:** Design/Construction

Project Description: This project proposes the design and construction of an approximately one-hundred car parking facility immediately northeast of the intersection of Gold St and State St. The project is assumed to include grading and clearing, landscape medians and buffers, historically compatible lighting and a surface mimicking natural dirt. The estimated cost includes the design and construction of the facility.

Need/Justification: The project is identified in the Columbia State Historic Park General Development Plan and is needed to alleviate the parking capacity deficiency identified in the CCIP planning process. The project may also help increase the attractiveness of infill projects in the downtown area as parking availability is a key factor in these types of projects. With one-quarter mile being a recognized planning measure for 'walkability' the facility provides a high degree of coverage to the majority of the core downtown area.

Special Planning Issues: This project site contains a large amount of limestone outcroppings and may or may not be desirable for the project depending on community desires. Limestone outcroppings, whether left in place or relocated should be incorporated into the design of the new lot to the extent feasible. All relocated outcroppings should be constructed to have the existing characteristic of the existing outcroppings. Excess rock should be stockpiled at a community-approved location to be reused in future community landscape improvement projects. Parking stall numbers have been taken directly from the Columbia State Historic Park General Development Plan and have not been verified at this time. Infill development along the west side of Parrotts Ferry Rd or in the downtown area, the development/redevelopment of parcels zoned mixed-use west of Gold St., and/or the removal of existing parking facilities in the State Park are examples of projects that may require the development of this facility. Sensitivity to additional lighting in the community was observed at Community Workshop No.2.

Estimated Cost: \$416,000

Potential Lead Agency: Columbia SHP

Timeframe for Implementation: Long-term

PC-02 – Gold and State Parking Facility South**Project Type:** Design/Construction

Project Description: This project proposes the design and construction of an approximately two-hundred fifty car parking facility immediately southeast of the intersection of Gold St and State St. The project is assumed to include grading and clearing, landscape medians and buffers, historically compatible lighting and a surface mimicking natural dirt. The estimated cost includes the design and construction of the facility.

Need/Justification: The project is identified in the Columbia State Historic Park General Development Plan and is needed to alleviate the parking capacity deficiency identified in the CCIP planning process. The project may also help increase the attractiveness of infill projects in the downtown area as parking availability is a key factor in these types of projects. With one-quarter mile being a recognized planning measure for 'walkability' the facility provides a high degree of coverage to the majority of the core downtown area.

Special Planning Issues: The project interfaces with a number of other CCIP projects including IE-04, HH-01, and BP-04. The area contains a drainage canal and is known to flood periodically. Existing mature vegetation, some areas of limestone outcroppings, and a significant grade transition adjacent Gold St would also present challenges to the future project team. The proposed project would need to address these issues which could be significant and costly. The proximity to downtown is ideal for the facility; however development costs and other factors may affect the viability of the project. A scaled-down and/or phased version of this project may also want to be considered until sufficient demand is reached. Infill development along the west side of Parrotts Ferry Rd or in the downtown area, the development/redevelopment of parcels zoned mixed-use west of Gold St., and/or the removal of existing parking facilities in the State Park are examples of projects that may require the development of this facility. Parking stall numbers have been taken directly from the Columbia State Historic Park General Development Plan and have not been verified at this time. Sensitivity to additional lighting in the community was observed at Community Workshop No.2.

Estimated Cost: \$1,428,000

Potential Lead Agency: Columbia SHP

Timeframe for Implementation: Long-term

PC-03 – Columbia State Historic Park Parking Facility South**Project Type:** Design/Construction

Project Description: This project proposes the design and construction of an approximately one hundred fifty stall parking facility across from Columbia Elementary School. The project is assumed to include grading and clearing, landscape medians and buffers, historically compatible lighting and a surface mimicking natural dirt. The estimated cost includes the design and construction of the facility.

Need/Justification: The project is identified in the Columbia State Historic Park General Development Plan to allow the removal of the existing main parking lot for restoration as the Main Gulch Mining Area. The project may also be moderately useful to alleviate the parking capacity deficiency identified in the CCIP planning process, however with ¼ mile being a recognized planning measure for 'walkability' the facility provides little coverage to the majority of the downtown area.

Special Planning Issues: The project interfaces with several other CCIP projects including IG-04, IG-05, IE-07, and BP-03. The project interfaces with a drainage canal and existing mature vegetation. The development of the planned State Park visitor center, infill development along Parrotts Ferry Rd and/or the development/redevelopment of parcels zoned mixed-use and commercial are examples of projects that may require the development of this facility. Parking stall numbers have been taken directly from the Columbia State Historic Park General Development Plan and have not been verified at this time. The location would also increase turning movements on and off of Parrotts Ferry Rd. in front of the Elementary school. The driveway location and potential need for additional turning lanes into and out of the facility will need to be explored to increase the safety of the school zone for pedestrians, bicyclists and drivers alike. A second option of providing primary, secondary, or exclusive access to the facility off of Church Lane only should be coordinated with project IG-05, as existing conflicts with traffic merging onto Parrotts Ferry Rd. at this intersection were identified at the community workshop. Sensitivity to additional lighting in the community was observed at Community Workshop No.2.

Estimated Cost: \$1,778,000

Potential Lead Agency: Columbia SHP

Timeframe for Implementation: Long-term

PC-04 – Columbia Airport Parking Facility Expansion

Project Type: Design/Construction

Project Description: This project proposes the expansion of the existing parking facility at Columbia Airport to include approximately forty more stalls. The project is assumed to include some demolition of portions of existing facilities, grading and clearing, landscape enhancements, asphalt surfacing, and lighting. The estimated cost includes design and construction of the facility.

Need/Justification: The master plan for the airport calls for the expansion of the existing parking lot. The existing parking facility regularly operates at/near capacity. The expansion of the facility will allow greater capacity for short-term and long-term capacity supporting the continued successful operation of the facility. The expansion will also be able to accommodate a larger turning radius for large mining trucks who occasionally mistakenly take Airport Rd. instead of Springfield Rd.

Special Planning Issues: The project interfaces with several other CCIP projects including bicycle/pedestrian improvements at BP-07, bicycle parking and rental facilities at BO-02 and the western trailhead of the Dondero Trail improvements at PO-02. To the greatest extent feasible these projects should be designed and/or implemented in conjunction with each other. Sensitivity to additional lighting in the community was observed at Community Workshop No.2.

Estimated Cost: \$380,000

Potential Lead Agency: Tuolumne County Airports Department

Timeframe for Implementation: Long-term

5.1.1.5 Proposed Alternative Access (AA) Route Projects

Alternative access route projects are aimed at providing additional access roadways to major destinations in Columbia. These projects are intended to enhance/provide emergency access and/or alleviate traffic congestion problems identified during the CCIP planning process. The two destinations identified in the CCIP planning process were Columbia College and Columbia Elementary. Plans for a secondary access roadway off of Airport Rd were approved in Spring 2009 and therefore the project has not been included here in the proposed solutions.

AA-01 – Columbia College Secondary Entry Feasibility Study

Project Type: Study

Project Description: This project proposes a study to analyze the feasibility of constructing a secondary entry to Columbia College. The study would look at up to three entry alignments, provide lists of planning related issues, traffic impact analysis, and estimated costs for each. The study should recommend a preferred alignment and provide a strategy for implementation. The estimated cost provided includes the report only as described above.

Need/Justification: The project has been identified in past planning documents and in the CCIP planning effort. Columbia College is one of the major traffic generators in Columbia and currently has only one point of public vehicular access which is located on Sawmill Flat Rd at Columbia College Dr. The RTP projects that LOS on Sawmill Flat Rd will reach levels below County standard (LOS D) sometime between 2020 and 2030. With increased college-bound traffic being the primary traffic generator, relieving traffic pressure on Sawmill Flat Rd is desirable to mitigate/avoid dropping below County LOS standards.

Special Planning Issues: If possible, the alignment should attempt to draw southbound traffic north of Jackson St off of Jackson St/Yankee Hill Rd to mitigate traffic impacts related to college-bound traffic passing through the Park. Two potential alignments have been suggested during the CCIP planning effort. The first is along Howser Lane, Forest Park Dr. and continuing along the existing emergency access road to the College near Symons Field. The second is along the alignment of project BP-09: Melones Water Line Trail Project shown in Exhibit 14: *Potential Projects Locations Map*. Any alignment should provide for bicycle/pedestrian facilities.

Estimated Cost: \$30,000

Potential Lead Agency: TCTC/Columbia College

Timeframe for Implementation: Mid-term

5.1.1.6 Proposed Bypass Route (BR) Projects

Bypass route projects address community desires to alleviate through and industrial traffic in the historic district and Columbia Elementary school zone to provide for safe crossing by pedestrians and cyclists. Bypass routes are complex infrastructure improvement projects requiring a high degree of analysis, planning and environmental documentation. It is therefore recommended that the projects undergo further study to determine feasibility and potential impacts related to their design, construction, and operation.

BR-01 – Parrotts Ferry Rd Bypass Feasibility Study

Project Type: Study

Project Description: This project proposes a study to analyze the feasibility of constructing a Parrotts Ferry Road bypass in Columbia. The study would analyze up to three alignments, provide lists of planning related issues, traffic impact analysis, economic impact analysis, and estimated costs for each. The process would include a steering committee, community outreach, and public workshops. The study would recommend a preferred alignment and provide a strategy for implementation including potential funding sources. The estimated cost provided includes the report as described above. It does not currently include costs associated with the preparation of an Environmental Impact Report (EIR).

Need/Justification: The project is recommended to alleviate through and industrial traffic in the historic district and school zone to provide for improved safety of pedestrians and cyclists as identified in the Columbia Community Plan and the RTP. The bypass has a high degree of community support.

Special Planning Issues: The project interfaces with a number of other CCIP projects. To the greatest degree feasible, adjacent improvements should be planned simultaneously. If feasible, it is recommended that this study incorporate and/or address impacts to other planned CCIP improvements as part of the route alternatives analysis. The study is also recommended to include the provision of bicycle and pedestrian facilities along the proposed alignment. Potential nodes for the analysis to the south include 1. Parrotts Ferry Road south of the intersection of Airport Road/Howser Ln/Springfield Rd (Columbia 'Star') 2. Parrotts Ferry Road at Airport Road/Howser Ln/Springfield Rd (Columbia 'Star') 3. A connection north of Airport Rd and south of Columbia Elementary along Parrotts Ferry Rd. An alignment generally heading east of Columbia Airport and west of Columbia Elementary was identified by community members and project Steering Committee members as potentially feasible and needing further study. Potential nodes to the north may include various locations along Parrotts Ferry Rd north and south of Pioneer Park. Appendix D includes a County exhibit of potential alignments previously identified (dated May 11, 2001), but does not represent those described herein. The RTP contains additional information on past planning issues related to the bypass and sets the construction value for the project at seventeen million dollars.

Estimated Cost: \$200,000

Potential Lead Agency: TCTC/Tuolumne County

Timeframe for Implementation: Short-term

BR-02 – Jackson St Diverter Feasibility Study**Project Type:** Study

Project Description: This project proposes a study to determine the feasibility of diverting through traffic off Jackson St. to an alignment along Bigler St. and Pacific St. over to Broadway then onto Parrotts Ferry Rd. The study would identify planning related issues, traffic impact analysis, economic impact analysis, and estimated costs for the improvements required. The estimated cost is for the preparation of the study.

Need/Justification: The project is identified in the Columbia State Historic Park General Development Plan and is recommended to study the potential for alleviation of through and industrial traffic and in the historic district which are seen as detracting from the historic mission of the Park. The project is also needed to study the potential for improved pedestrian safety at the chokepoint immediately east of the intersection of Jackson St. and Columbia St.

Special Planning Issues: The route is less direct than the current alignment and may require intersection modification and/or signage at the intersection of Broadway and Parrotts Ferry Rd. Access to the parking lots at the intersections of Columbia St./Jackson St. and Main St./Jackson St. would also need to be studied. The project connects with the proposed Italian Bar Rd. bypass at BR-03. These two studies may be combined for efficiency. The project also interfaces with PO-01 at the intersection of Bigler St. and Yankee Hill Rd. Provision of bicycle/pedestrian shoulders is recommended.

Estimated Cost: \$15,000

Potential Lead Agency: Tuolumne County/Columbia SHP

Timeframe for Implementation: Mid-Term

BR-03 – Italian Bar Rd Bypass Feasibility Study**Project Type:** Study

Project Description: This project proposes the preparation of a study to determine the feasibility of the bypass of Italian Bar Rd. starting approximately one thousand feet north of Pacific St along Italian Bar Rd, extending west of Italian Bar Rd. to the intersection of Broadway St. and Pacific St. The study would identify planning related issues, traffic impact analysis, economic impact analysis, and estimated costs for the improvements required. The estimated cost is for the preparation of the study.

Need/Justification: The project is identified in the Columbia State Historic Park General Development Plan and is needed to study the potential for alleviation of through and industrial traffic in the historic district which are seen as detracting from the historic mission of the Park.

Special Planning Issues: In the General Development Plan, the remaining portion of the existing Italian Bar Rd would be restored as to its historic appearance as Main Street. This should be included in the study. The project connects with the proposed Jackson St. Diverter at BR-02. These two studies may be combined for efficiency.

Estimated Cost: \$15,000

Potential Lead Agency: Tuolumne County/Columbia SHP

Timeframe for Implementation: Long-Term

5.1.2 Proposed Public Transit Projects

Public Transit projects address solutions to deficiencies identified in the current public transportation network in Columbia. They include projects related to the enhancement of service and the enhancement of facilities. Projects are in the form of physical improvements and analysis studies to identify specific deficiencies where lack of data is available.

5.1.2.1 Proposed Transit Service (TS) Enhancement Projects

Transit service enhancement projects identify strategies to increase the accessibility of public transportation services in Columbia. Tuolumne County Transit's Transit Development Plan is currently undergoing an update, and therefore it may be possible to incorporate some or all of the recommended projects into the final CCIP.

TS-01 – Columbia Intra-Connector Shuttle Feasibility Study

Project Type: Study

Project Description: This project proposes to study the feasibility of operating a shuttle service within the Columbia community. The study would survey the community for ridership potential preferred route destinations, and desired frequency of service, analyze costs associated with startup and operations of the service, identify funding sources, and recommend a path for future action. The estimated cost provided includes the report only as described above.

Need/Justification: The need for a shuttle service within the Columbia Community has been identified by Steering Committee members and residents to increase mobility of residents and tourists between key points of interest within the Community. The frequency of the current TCT service within the community is not currently deemed adequate by community members to facilitate their desired level of mobility; therefore a supplemental shuttle service has been suggested to fill the gaps.

Special Planning Issues: Potential stops identified in the CCIP planning process included Columbia Airport, Columbia State Historic Park, Columbia College, and Columbia Elementary. This service is not likely to be self-sufficient through fare generation; therefore some form of assessment district for the service may be needed.

Estimated Cost: \$15,000

Potential Lead Agency: Tuolumne County Transit

Timeframe for Implementation: Mid-term

TS-02 – Columbia Transit Service Deficiency Survey**Project Type: Study**

Project Description: This project proposes a survey of Columbia residents to determine where current gaps in TCT service exist. The estimated cost is for developing and conducting a survey and the preparation of a brief results report.

Need/Justification: A need for increased TCT service locations (stops) and facilities (shelters) was expressed during the CCIP planning process. Currently, sufficient data does not exist to indicate where the lack of service in the Columbia area exists and where facilities are most desired by the Community. The study is needed to identify these locations.

Special Planning Issues: If feasible, it is recommended that this study be conducted as part of the current update to the Tuolumne County Transit Development Plan. The project could also be combined with TS-01 as part of a larger transit service improvement analysis for the Columbia Community. The results of the survey should help inform future CCIP updates.

Estimated Cost: \$5,000

Potential Lead Agency: Tuolumne County Transit

Timeframe for Implementation: Mid-term

5.1.2.2 Proposed Transit Facilities (TF) Enhancement Projects

Transit facilities enhancement projects identify strategies to increase the quality and/or quantity of public transportation facilities in Columbia. By increasing the attractiveness and overall quality of experience of public transportation delivery in Columbia, these projects can help attract higher transit ridership and reduce the number of single-occupancy vehicle trips in Columbia. Provision of transit facilities can also increase the attractiveness of economic development in a community by allowing access to wider base of consumers and employees.

TF-01 – Columbia Inter-Agency Transit Shelter Project**Project Type: Design/Construction**

Project Description: This project proposes the design and construction of a transit shelter in Columbia. The design will include an all-weather shelter, provision of, or access to, public restrooms, appropriate lighting, landscaping, and bicycle racks and/or lockers. The design will also include site furnishings and associated paving areas around the shelter as necessary. The opinion of cost herein includes a basic pre-engineered type shelter and does not include adjacent parking facilities. Custom shelters and parking facilities can substantially increase cost. These cost increases should be explored in the preliminary design/engineering phase following the report currently being prepared (See 'Special Planning Issues').

Need/Justification: Transit facilities in Columbia are very limited and currently afford no protection from rain, snow, wind, and hot summer sun. Additionally they do not provide bicycle storage facilities or access to public restrooms. This makes utilizing transit services less desirable to Community members and tourists. The project proposes the provision of a shelter to begin to meet these deficiencies in an effort to encourage increased ridership and decreased traffic volumes in the Community. The facility is envisioned to serve as the inter-agency transfer location between Tuolumne County Transit and Calaveras Transit.

Special Planning Issues: Funded by a CalTrans Grant, an analysis report is currently being prepared and has studied nine potential locations in Columbia. An advisory committee of key stakeholders in the Columbia, Tuolumne, and Calaveras Counties was assembled and has been providing input on draft version of the report. The current draft report has identified the location immediately south of Howser Lane on Parrotts Ferry Rd as the preferred location for the facility. This draft report and site recommendation was reviewed and approved by the Columbia Area Planning Commission on March 11th, 2010. This site is adjacent to a number of other CCIP projects including but not limited to IG-02, AA-01, BR-01, TF-02, BP-02, BP-03. At minimum, project IG-02 is recommended to be completed prior to the construction of a shelter at this site. Maintenance of the facility has been an topic in need of further study in various public meetings.

Estimated Cost: \$206,000

Potential Lead Agency: Tuolumne County Transit

Timeframe for Implementation: Mid-term

TF-02 – Columbia Park ‘n Ride Facility Project

Project Type: Design/Construction

Project Description: This project proposes a public/private partnership for the construction and/or dedication of an approximately 30 stall Park ‘n Ride facility along Parrotts Ferry Rd at a location to be determined. The project would include an analysis of potential locations, demand analysis to confirm appropriate capacity of the facility, recommendation of a preferred location, and an asphalt facility with landscape and historically ‘compatible’ lighting improvements. The estimated cost is for design and construction of a 30 stall facility as described above.

Need/Justification: Seventy-seven percent of people who live in Columbia reported that they drive alone to work and only 8% carpool. The project is needed to further encourage carpooling in the Community thereby decreasing existing and future pressure on the Community’s roadways and air quality index. If located near a transit stop it may also be effective in increasing transit ridership.

Special Planning Issues: When choosing a location, good visibility and access is essential for security. The size of the facility is a preliminary estimate based on past experience in developing these types of facilities in other communities and should be confirmed through a more formal demand analysis. A location adjacent to an existing or proposed transit stop/shelter facility (TF-01) may also be desirable. The preferred location for project TF-01 has been identified at Howser Lane and the conceptual site plan includes the provision of an adjacent parking facility that would meet the need for this project.

Estimated Cost: \$157,000

Potential Lead Agency: Tuolumne County Transit

Timeframe for Implementation: Mid-term

5.1.3 Proposed Airport Projects

Potential airport projects address transportation related improvements to Columbia Airport. As identified in the Columbia Community Plan, the airport is an integral part of the community, and an essential component in Tuolumne County's transportation system. As one of the main goals of the CCIP process is to incorporate the operations and future plans for the airport into the plan, it is important to include plans that respect and enhance the operations.

Several projects identified in the Proposed Solutions section of this document enhance the attractiveness of the airport to pilots, their families, tourists, and Columbia residents. These projects include the Columbia 'Star' Intersection Improvement Study (IG-02), the Columbia Airport Parking Expansion Project (PC-04), Columbia Intra-Connector Shuttle Feasibility Study (TS-01), Airport Rd Bicycle/Pedestrian Improvement Project (BP-07), The Columbia Airport Trail Enhancement Project (BP-11), Columbia Airport Bicycle Rental and Parking Facilities (BO-02), and the Dondero Trail Enhancement Project (PO-02). Other specific projects for the Airport are identified in the RTP.

5.1.4 Proposed Bicycle and Pedestrian Projects

This category of projects addresses solutions to gaps related to the improvement of the bicycle and pedestrian circulation networks in Columbia. The projects are divided up into three sub-sections: Combination Bicycle/Pedestrian (BP) Projects, Bicycle-Only (BO), and Pedestrian-Only (PO). This format allows the intended users of the facility to be easily communicated in the projects CCIP ID number. The potential for parallel equestrian facilities along many of these alignments is recommended to be explored and is addressed in the 'Potential Equestrian Projects' section of this document.

5.1.4.1 Proposed Combination Bicycle/Pedestrian (BP) Projects

This section addresses solutions that provide for bicycle and pedestrian circulation in the same facility. These projects typically include widened shoulders (Class II) and independent (Class I) facilities along roadways and/or along existing/proposed trail alignments. All facilities recommended in this section are extracted from the Columbia Community Plan and/or the adopted Tuolumne County Bikeways and Trails Plan. Some of the larger (longer) facilities have been broken down into smaller segments. This approach allows for maximum flexibility in

implementation of the overall facility. The projects may be combined and/or further segmented depending on funding requirements; however the current breakdown is believed to be more effective in addressing the gaps identified in the CCIP planning process. An example is provided below for project BP-02 with each combination representing a different way to describe a future project:

When combined/linked with BP-01: the projects will provide alternative transportation and recreation options for areas of existing and planned high/medium-density residential to access (future) retail developments at the intersection of SR49 and Parrotts Ferry Rd and link into the (future) regional bicycle/pedestrian networks to Sonora and Jamestown.

When combined/linked with BP-06: the projects will provide alternative transportation and recreation options for areas of existing and planned high/medium-density residential to an institution of higher-education: the Columbia College Campus.

When combined/linked with BP-03: the projects will provide alternative transportation and recreation options for areas of existing and planned high/medium-density residential to Columbia Elementary, retail/commercial developments, and the State Park.

For projects where a Class II facility is recommended, opportunities to implement sections of Class I facility are encouraged where sufficient rights of way exist. This can be accomplished by detaching sections of the facilities from the shoulder with a more meandering alignment, grade separations, and/or landscape buffers. Typical design standards for Class II facilities include a four foot minimum facility. Six foot shoulders are recommended where one or more of the following conditions exist:

- where sidewalks are not feasible and medium to high usage of the facilities by bicyclists and/or pedestrians is expected
- where high levels of truck traffic occur
- where vehicle speeds exceed 50mph
- where sight distances are low
- where static obstructions exist at the right side of the roadway

In general Class II facilities are recommended on both sides of the roadway. Wrong-way riding is a major cause of bicycle crashes and is inconsistent with the rules of the road as stated in the California Vehicle Code. With safety being the number one concern, facilities on both sides of the roadway are recommended throughout the CCIP planning area. Equestrian usage of these facilities is not recommended due to compatibility issues, however parallel bridal trails should be explored (see 'Potential Equestrian Projects' section of this document).

**BP-01 – Parrotts Ferry Road – Columbia to Sonora Bicycle/Pedestrian Connector
Segment D, Sonora to Columbia College Bicycle/Pedestrian Connector: Segment B
Project Type: Design/Construction**

Project Description: This project proposes the design and construction of Class II bicycle and pedestrian facilities along both sides of Parrotts Ferry Rd from SR49 to Sawmill Flat Rd. The improvements would include asphalt shoulders widened to a minimum of 4 feet, with 6 feet being the preferred width where feasible. The estimated price indicated below is for design and construction of a 4 foot facility on both sides of the roadway from Union Hill Rd to Sawmill Flat only with associated striping and signage (see special planning issues below).

Need/Justification: The project is identified in the Columbia Community Plan as a part of the combination bicycle/pedestrian facilities from Columbia College to Sonora and Columbia to Sonora. The project is also identified as part of the RTP Tier 1b project for the County as part of a connection from Columbia College to Sonora, and as the number one priority bicycle/pedestrian project in the County in the 2006 Bikeways and Trails Plan. The project is consistent with the goals and objectives stated in these plans.

Special Planning Issues: The project interfaces with a number of other CCIP projects (see Figure 1). To the greatest degree feasible, adjacent improvements should be planned simultaneously. Due to the complexity of future planned improvements along this segment of the roadway, it is recommended that this project be designed concurrent with and/or as part of the IG-01 intersection geometry project. The cost for the segment connecting the segment south of Union Hill Rd to the future bicycle/pedestrian facilities on SR49 will depend on the revised geometry of the intersection (IG-01) and has not been calculated at this time. The segment of this project south of Union Hill Rd occurs within Caltrans right of way. Alternatively a connection to Sonora via Springfield Rd and Shaws Flat Rd has been suggested by the CCIP Steering Committee. This alignment is also viable to Jamestown via Springfield Rd, Shaws Flat Rd and Jamestown Rd (See the 'Columbia to Jamestown Bicycle/Pedestrian Connector' in the 'Projects Not Recommended for Prioritization' section)

Estimated Cost: \$102,000

Potential Lead Agency: Tuolumne County/Caltrans

Timeframe for Implementation: Short-term

**BP-02 – Columbia to Sonora Bicycle/Pedestrian Connector Segment C
Project Type: Design/Construction**

Project Description: This project proposes the design and construction of Class II bicycle and pedestrian facilities along both sides of Parrotts Ferry Rd from Sawmill Flat Rd to Airport Rd. The improvements would include asphalt shoulders widened to a minimum of 4 feet, with 6 feet being the preferred width where feasible. The estimated price is for design and construction of a 4 foot facility on both sides of the roadway with associated striping and signage.

Need/Justification: The project is identified in the Columbia Community Plan as a part of the combination bicycle/pedestrian facilities from Columbia to Sonora. When combined with adjacent CCIP bicycle and pedestrian facilities the project will link existing and planned medium/high density residential areas with planned retail at the Pedro Wye, the Columbia College campus, the Columbia Airport, Columbia Elementary, and the State Park. The segment is a key piece of infrastructure in the larger connectivity of planned CCIP improvements.

Special Planning Issues: The project interfaces with a number of other CCIP projects (see Figure 14). To the greatest degree feasible, adjacent improvements should be planned simultaneously. The segment will also face significant issues including but not limited to utility conflicts (power lines), mature vegetation adjacent the roadway, chokepoints potentially requiring the construction/relocation of significant walls, and fill areas where shoulders area currently narrow and steep. Alternatively a connection to Sonora via Springfield Rd and Shaws Flat Rd has been suggested by the CCIP Steering Committee. This alignment is also viable to Jamestown via Springfield Rd, Shaws Flat Rd and Jamestown Rd (See the 'Columbia to Jamestown Bicycle/Pedestrian Connector' in the 'Projects Not Recommended for Prioritization' section)

Estimated Cost: \$1,259,000

Potential Lead Agency: Tuolumne County

Timeframe for Implementation: Short-term

BP-03 –Columbia to Sonora Bicycle/Pedestrian Connector Segment B

Project Type: Design/Construction

Project Description: This project proposes the design and construction of Class II bicycle and pedestrian facilities along both sides of Parrotts Ferry Rd from Columbia St. to Airport Rd. The improvements would include asphalt shoulders widened to a minimum of 4 feet, with 6 feet being the preferred width where feasible. The estimated price is for design and construction of a 4 foot facility on both sides of the roadway with associated striping and signage.

Need/Justification: The project is identified in the Columbia Community Plan as a part of the combination bicycle/pedestrian facilities from Columbia to Sonora. Currently narrow shoulders in this segment often force pedestrians to walk in or near traffic lanes. When combined with other CCIP segments the facilities will provide safer biking and walking facilities for Columbia Elementary students and Columbia residents. The project will also link the Dondero Trail and Airport Rd facilities with the State Park.

Special Planning Issues: The project interfaces with a number of other CCIP projects (see Figure 14). To the greatest degree feasible, adjacent improvements should be planned simultaneously. The segment will also face significant issues including but not limited to utility conflicts (power lines), mature vegetation adjacent the roadway, chokepoints potentially requiring walls, and fill areas where shoulders area currently narrow and steep.

Estimated Cost: \$602,000

Potential Lead Agency: Tuolumne County

Timeframe for Implementation: Short-term

BP-04 – Columbia to Sonora Bicycle/Pedestrian Connector Segment A**Project Type:** Design/Construction

Project Description: This project proposes the design and construction of Class II bicycle and pedestrian facilities along both sides of Parrotts Ferry Rd. from N Gold St. to Columbia St. The improvements would include ‘natural looking alternative’ (such as TerraPave) surfaced shoulders widened to a minimum of 4 feet, with 6 feet being the preferred width where feasible. The estimated price is for design and construction of a 4 foot facility on both sides of the roadway with associated striping and signage.

Need/Justification: The project is identified in the Columbia Community Plan as a part of the combination bicycle/pedestrian facilities from Columbia to Sonora. This segment of Parrotts Ferry Rd is observed as having a high degree of pedestrian activity and will be a major destination for future increased bicycle traffic along Parrotts Ferry Rd. once adjacent segments are completed. A ‘natural looking alternative’ surface is recommended through this section in keeping with State Park’s desire for reduced visual impact of the roadway and traffic calming measures.

Special Planning Issues: The project interfaces with a number of other CCIP projects (see Figure 14). To the greatest degree feasible, adjacent improvements should be planned simultaneously. This may be considered the “main stretch” of roadway for automobile and truck traffic through town. The project is within the State Park boundary, has narrow right of way conditions, and has underground PG&E facilities that may restrict pavement materials and planting locations. Additionally, the segment has several diagonal and perpendicular parking facilities, causing vehicles to back onto the road. These types of parking arrangements are not compatible with planned bicycle facilities because of restricted sight distance and related potential for motor vehicle conflicts. It is recommended that these facilities be removed during design and construction of this project. Direct coordination with the State Park during design and construction is recommended.

Estimated Cost: \$322,000

Potential Lead Agency: Tuolumne County/Columbia SHP

Timeframe for Implementation: Short-term

BP-05 – Columbia to Marble Quarry Bicycle/Pedestrian Connector**Project Type:** Design/Construction

Project Description: This project proposes the design and construction of Class II bicycle and pedestrian facilities along both sides of Parrotts Ferry Rd from N Gold St. to Marble Quarry Rd. The improvements would include asphalt shoulders widened to a minimum of 4 feet, with 6 feet being the preferred width where feasible. The estimated price is for design and construction of a 4 foot facility on both sides of the roadway with associated striping and signage.

Need/Justification: The project is identified in the Columbia Community Plan as a project of significance to the Community. The project would provide bicycle/pedestrian transportation options to residential areas north of the State Park. It would also provide improved recreational access to Pioneer Park.

Special Planning Issues: The project interfaces with three other CCIP planned projects including bicycle/pedestrian facilities at BP-04 and intersection enhancements at IE-05 and IE-11. To the greatest degree feasible, these adjacent improvements should be planned simultaneously. Project IE-11 especially is recommended to be installed simultaneously to discourage cyclists from riding against traffic.

Estimated Cost: \$762,000

Potential Lead Agency: Tuolumne County

Timeframe for Implementation: Mid-term

BP-06 – Sonora to Columbia College Bicycle/Pedestrian Connector: Segment C

Project Type: Design/Construction

Project Description: This project proposes the design and construction of Class II bicycle and pedestrian facilities along both sides of Sawmill Flat Rd from Parrotts Ferry Rd to Columbia College Dr. The improvements would include asphalt shoulders widened to a minimum of 4 feet, with 6 feet being the preferred width where feasible. The estimated price is for design and construction of a 4 foot facility on both sides of the roadway with associated striping and signage.

Need/Justification: The project is identified in the Columbia Community Plan as a part of the combination bicycle/pedestrian facilities from Columbia College to Sonora and Columbia to Sonora. The project is also identified as part of the RTP Tier 1b project for the County as part of a connection from Columbia College to Sonora, and as the number one priority bicycle/pedestrian project in the County in the 2006 Bikeways and Trails Plan. The project is needed in compliance with the goals and objectives stated in these plans.

Special Planning Issues: This project interfaces with a significant number of planned CCIP projects including IE-02, IE-06, IE-09, IE-10, IG-03, IG-06, BP-01, BP-02, BP-08, BP-09. It is recommended that intersection geometry and enhancement projects at Sawmill Flat and Columbia College be designed and/or constructed simultaneously to improve crossing safety and community aesthetics at these locations.

Estimated Cost: \$1,177,000

Potential Lead Agency: Tuolumne County

Timeframe for Implementation: Mid-term

BP-07 – Airport Rd Bicycle/Pedestrian Improvement Project**Project Type: Design/Construction**

Project Description: This project proposes the improvement of the existing bicycle and pedestrian facilities along both sides of Airport Rd from Parrotts Ferry Rd to the Airport parking lot. The improvements would include a two inch asphalt overlay of the roadway with associated striping and signage of the improved facilities. The estimated price is for design and construction of the overlay, striping, and signage improvements.

Need/Justification: Roadway surface conditions are in need of improvement and formal striping and signing of the route will encourage more use of the facility. Dondero Trail is not planned to accommodate bicycles, therefore improvements to the Airport Rd facility are important in addressing the need for a formal bicycle route from the Airport to the State Park.

Special Planning Issues: This project interfaces with a significant number of planned CCIP projects including IG-02, AA-01, BR-01, BP-02, BP-03, BO-02, PO-02 and the RTP Tier 1b planned facility from Jamestown to Columbia along Springfield Rd. It is recommended that IG-02 and the design and construction of the recommendations in that report be completed prior to this project being constructed. The geometry of the existing intersection at Airport Rd and Parrotts Ferry Rd is recommended for improvements to encourage greater use and increased safety for all modes of transportation using the facility (See IG-02). Encouraging use of the facility is not recommended until the geometry problem is corrected. A future alternative access road off of Airport Rd north to the fields at Columbia Elementary has been approved. A potential bicycle and pedestrian crossing facility at this location should be taken into consideration in the planning of this facility to encourage the proper use of these facilities.

Estimated Cost: \$222,000

Potential Lead Agency: Tuolumne County

Timeframe for Implementation: Short-term

BP-08 – Squabbletown Trail Improvement Project**Project Type: Design/Construction**

Project Description: This project proposes the design and construction of a ten foot wide, two-direction, Class I bicycle/pedestrian facility along the existing alignment of the Squabbletown Trail from Sawmill Flat Road to Browns Flat at Hwy 49. Improvements include a 10' wide all-weather surfaced trail (asphalt or 'natural looking alternative'), trailhead signage at each end and a mid-trail marker. The estimated cost includes design and construction of a 'natural looking alternative' (such as TerraPave) surfaced facility as described above. Costs for acquisition of right to use are not included at this time.

Need/Justification: The project is identified in the Columbia Community Plan as a project of significance to the Community. The Class I facility would afford cyclists and pedestrians the option of traveling to/from Columbia College along a shorter, more scenic route with less potential conflicts with automobiles. When connected with planned bicycle/pedestrian facilities along SR 49 and Woods Creek south of the segment, formal alternative transportation connections and increased recreational opportunities will be available to area residents.

Special Planning Issues: The project interfaces with two other CCIP planned projects including widened shoulders at BP-06 and roadway crossing facilities at IE-09. The Squabbletown Trail segment is part of a larger planned trail system intended to extend further south to Sonora High School along Woods Creek. If feasible, the project should be planned in conjunction with bicycle/pedestrian facilities along Woods Creek and/or to downtown Sonora along SR49. The 1996 Recreation Master Plan also indicates the project requires acquisition of right to use. This should be completed prior to design/construction or design costs should be updated to reflect this task.

Estimated Cost: \$817,000

Potential Lead Agency: Tuolumne County

Timeframe for Implementation: Long-term

BP-09 – Melones Water Line Trail Improvement Project, Columbia College

Bicycle/Pedestrian South Entry Project

Project Type: Design/Construction

Project Description: This project proposes the design and construction of a ten foot wide, two-direction, Class I bicycle/pedestrian facility along the existing alignment of the Melones Waterline Trail from Sawmill Flat Road to Columbia College. Improvements include a 10' wide all-weather surfaced trail (asphalt or 'natural looking alternative'), trailhead signage at each end and a mid-trail marker. The estimated cost includes design and construction of a 'natural looking alternative' (such as TerraPave) surfaced facility as described above. Costs for acquisition of right to use (if needed) are not included at this time.

Need/Justification: The project is identified in the Columbia Community Plan as a project of significance to the Community. The Class I facility would afford cyclists and pedestrians the option of traveling to/from Columbia College along a shorter, more scenic route with less potential conflicts with automobiles. When connected with planned bicycle/pedestrian facilities along Sawmill Flat, Squabbletown Trail and Woods Creek south to Sonora, formal alternative transportation connections and increased recreational opportunities will be available to area residents.

Special Planning Issues: The project interfaces with three other CCIP planned projects including widened shoulders at BP-06, roadway crossing facilities at IE-10, and a potential secondary vehicular entry to Columbia College at AA-01. The Melones Waterline Trail segment is part of a larger planned trail system intended to link Columbia College with Sonora. If feasible, the project is recommended to be planned in conjunction with bicycle/ pedestrian improvements on the Columbia College campus due to be planned in the Fall of 2009 to ensure that the trails on-

campus are improved to accommodate an anticipated increase in traffic. The project may require acquisition of right to use though the majority of the alignment is believed to be on College property. Acquisition of right to use (if any) should be completed prior to design/ construction or design costs should be updated to reflect this task.

Estimated Cost: \$540,000

Potential Lead Agency: Tuolumne County

Timeframe for Implementation: Long-term

BP-10 – Stagecoach Trail Improvement Project

Project Type: Design/Construction

Project Description: This project proposes the construction of a ten foot bicycle pedestrian facility adjacent to or semi-detached from the existing Stagecoach Rd, connecting Columbia State Historic Park with Columbia College. Improvements include a 10' wide all-weather surfaced trail (asphalt or 'natural looking alternative'), trailhead signage at each end and a mid-trail marker. The estimated cost will include design and construction of a 'natural looking alternative' (such as TerraPave) surfaced facility as described above. Costs for acquisition of right to use are not included at this time.

Need/Justification: This project is identified in the Columbia Community Plan as a trail of significance to the Community. The project improves pedestrian and bicycle connectivity between the State Park and Columbia College. The all-weather nature of the facility would increase the use year-round.

Special Planning Issues: The popular stagecoach ride in Columbia operates along the existing Stagecoach Rd. Bicycle and equestrian uses have compatibility issues and are not recommended to share the same path if feasible. A parallel but detached alignment is recommended with the existing Stagecoach Rd. remaining dedicated to the operation of the stagecoach ride. The alignment of the facility is unclear at this time and will need to be walked into order to accurately depict its alignment and estimate the associated costs for implementation. The project likely requires acquisition of right to use. This should be completed prior to design/construction or design costs should be updated to reflect this task.

Estimated Cost: \$TBD

Potential Lead Agency: Tuolumne County

Timeframe for Implementation: Mid-term

BP-11 – Columbia Airport Trail Improvement Project**Project Type:** Design/Construction

Project Description: This project proposes the design and construction of a ten foot wide, two-direction, Class I bicycle/pedestrian facility from Horseshoe Bend Road to North Airport Road as shown in *Figure 14: Potential Projects Locations Map*. The proposed alignment is based on the drawing by Jim Thomas, Columbia Airports Director on September 01, 2009. Improvements include a 10' wide all-weather surfaced trail (asphalt or 'natural looking alternative'), four benches, and trailhead signage at each trailhead, at Airport Rd, and at the intersection with the Dondero Trail. The estimated cost includes design and construction of a 'natural looking alternative' (such as TerraPave) surfaced facility as described above. Costs for acquisition of right to use are not included at this time.

Need/Justification: The project is identified in the Columbia Community Plan as a project of significance to the Community. The project would increase the ability of residents and tourists to view take-offs, landings, at the airport and increase recreational opportunities in the community.

Special Planning Issues: The project occurs mostly on Airport property, so acquisition of right to use will likely be necessary. Aerial photography indicates the presence of significant vegetation and limestone outcroppings along the proposed alignment. The alignment will cross Airport Rd., so a crossing facility may be warranted. The project will also cross the Dondero Trail and may interface with the planned access road to the recreational fields at Columbia Elementary.

Estimated Cost: \$981,000

Potential Lead Agency: Tuolumne County Airports Department

Timeframe for Implementation: Long-term

5.1.4.2 Proposed Bicycle-Only (BO) Projects

Bicycle-only projects address solutions related exclusively to bicycle transportation. As most facilities planned for cyclists are also adequate for the accommodation of pedestrians, the projects identified in this section are limited to bicycle parking and rental facilities. Bicycle parking facilities are essential elements to the overall effort to promote bicycling in the CCIP. In general, bicycle-parking facilities are recommended at each major trip origin, destination and at all public transportation facilities. The decision over whether to provide short-term (bike racks, non-covered) and/or long-term parking facilities (all-weather lockers, cages, rooms in buildings) is open to discussion. Guidance for the design of these parking facilities can be found in the AASHTO Guide for the Development of Bicycle Facilities (1999). These nationally adopted guidelines are recommended to future project teams. It is recommended that these projects be implemented following and/or in conjunction with bicycle routes recommended in this plan. The construction of these bicycle parking facilities prior to the construction of adequate bicycle lanes is not recommended as it may encourage use of the currently inadequate shoulders.

BO-01 – Columbia State Historic Park Bicycle-Parking Facilities**Project Type: Construction**

Project Description: This project proposes the construction of four (4) bicycle-parking facilities located around the perimeter of the State Park. Locations are to be determined at the time of implementation. The estimated price is based on each facility including a single rack and approximately 500 square feet of concrete flatwork. The estimated price is for all four facilities.

Need/Justification: With the increase in bicycle traffic associated with improved bicycle and transportation facilities, bicycle-parking facilities are essential as part of the overall bikeway network. The State Park is expected to be a major traffic generator and parking facilities are recommended at all such generators.

Special Planning Issues: The Parrotts Ferry Rd corridor is ideal for locating these facilities since they would be convenient to the users. This is also in keeping with the State Park's General Development Plan which seeks to keep the operation of bicycles to the perimeter of the historic core. Preliminary locations identified during the CCIP process could be at the main parking lot, the existing bus stop on Parrotts Ferry Rd. near the California State Parks Central Valley District Headquarters, and any of the existing or proposed parking lots along Parrotts Ferry Road. Bicycle parking and way-finding signage may also want to be considered to increase awareness of the facilities. The construction of these bicycle parking facilities prior to the construction of adequate bicycle lanes is not recommended as it may encourage use of the currently inadequate shoulders.

Estimated Cost: \$18,000

Potential Lead Agency: Columbia SHP

Timeframe for Implementation: Short-term

BO-02 – Columbia Airport Bike Rental and Parking Facilities Project**Project Type: Construction**

Project Description: This project proposes the construction of bicycle parking facilities and the operation of a bicycle rental at Columbia Airport. The facilities would consist of one or two bicycle racks and/or bicycle lockers capable of securing 5-10 bicycles. Operation of the rental has not been determined at this time. The facilities could stand alone as parking facilities if the operation of a rental is later determined to be unfeasible. The estimated price is for construction of one rack and three lockers with associated concrete flatwork to support the facilities.

Need/Justification: Many pilots fly into town on day flights and travel to and from Columbia for a meal or shopping, typically on foot. The airport is also a destination for residents and tourists who enjoy watching the operations at the facility. Providing racks and lockers would allow pilots, their families, tourists and Columbia residents the opportunity to use alternative transportation methods to get to and from the Airport. Along with Dondero Trail improvements (PO-02) and bicycle/pedestrian improvements to Airport Rd (BP-07), this could increase the attractiveness of the location to pilots by making the downtown more accessible.

Special Planning Issues: Past issues with theft could be solved by providing bicycle lockers (lockable plastic enclosures) for rental bikes. The lockers could also be rented as ‘long-term’ bicycle parking facilities for pilots who would like to leave bicycles at the airport for use when they fly-in. In the past, operation of a bicycle rental was facilitated by the Airport, however due to theft the operation was discontinued. Purchasing or soliciting the donation of bicycles to serve as rentals is recommended. A maintenance funding source should be identified and could potentially be studied in OT-01. The construction of these bicycle parking facilities prior to the construction of adequate bicycle lanes is not recommended as it may encourage use of the currently inadequate shoulders.

Estimated Cost: \$14,000

Potential Lead Agency: Tuolumne County Airports Department

Timeframe for Implementation: Short-term

5.1.4.3 Proposed Pedestrian-Only (PO) Projects

Pedestrian-only projects address solutions related to facilities dedicated to pedestrians. These projects include trail and sidewalk improvements where the operation of bicycles is not encouraged. Typically these facilities are considerably narrower than bicycle/pedestrian combination facilities and can be designed with greater flexibility in alignment as pedestrian tolerance for winding and narrow pathways is much higher than that of cyclists. Guidelines for the development of the pedestrian facilities recommended in this section can be found in the AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities (2004). These nationally adopted guidelines are recommended to future project teams.

PO-01 – Bell Hill Trail Improvement Project

Project Type: Design/Construction

Project Description: This project proposes the design and construction of a four foot wide pedestrian facility along the Tuolumne County Recreation Master Plan proposed alignment of the Bell Hill Trail from Columbia at Jackson St and Broadway to Columbia College (See *Figure 14: Potential Projects Location Map*). Improvements include four foot ‘natural looking alternative’ (such as TerraPave) shoulders on Jackson St. from Broadway St. to Bigler St, asphalt shoulders on Jackson St./Yankee Hill Rd. from Bigler St. east to the trailhead on Yankee Hill Rd., and a four-foot wide all-weather surfaced trail from Yankee Hill Rd to the College, trailhead signage at each end and a mid-trail marker. The estimated cost includes design and construction of the facilities as described above. Costs for acquisition of right to use are not included at this time.

Need/Justification: The Bell Hill Trail is identified in the Columbia Community Plan as a trail of significance to the Community. The project would allow improved recreational opportunities from the State Historic Park to the site of the historic Marble Quarry and to Columbia College. The improvements are needed to provide a more accessible facility capable of supporting year-round use.

Special Planning Issues: The alignment of the facility was estimated off maps contained in the 1996 Recreation Master Plan. The facility has not been walked for specific site constraints at this time. Constructing the shoulder along Yankee Hill Rd may also prove difficult due to steep shoulder embankments which may require fill. The 1996 Recreation Master Plan also indicates the project requires acquisition of right to use. This should be completed prior to design and construction or design/planning costs should be updated to reflect this task. At Community workshop No. 2, the owner of Marble Quarry RV Resort identified the potential for improvements to an existing trail south of Yankee Hill Rd that may serve to connect the trail to town without the need for crossing/improvements to Yankee Hill Rd. This option should be explored further in future improvement efforts.

Estimated Cost: \$349,000

Potential Lead Agency: Tuolumne County/Columbia College

Timeframe for Implementation: Mid-term

PO-02 – Dondero Trail Improvement Project

Project Type: Design/Construction

Project Description: This project proposes pedestrian-oriented improvements along the existing Dondero Trail alignment. Improvements would include a widened walking surface to 3' minimum and 4' maximum with an all-weather surface ('natural looking alternative' recommended), removal of adjacent poison oak vegetation, staircases of stabilized rock or railroad ties in areas of significant and unstable grade change, and trailhead signage enhancements. The cost estimate includes the design and construction of the trail as described above.

Need/Justification: The Dondero Trail is a very popular local trail used by a wide range of residents, tourists, airport pilots and their families traveling between the Airport, Elementary School and State Park. The improvements herein are recommended to provide a more accessible facility capable of supporting year-round use.

Special Planning Issues: Various segments of the current facility are informal, narrow, overrun with poison oak, steep with uneven loose surfacing, and/or adjacent to steep drop offs. Full ADA accessibility along the existing Dondero Trail alignment without significant negative impacts to the natural beauty of the trail is not feasible and would be cost-prohibitive. If a fully accessible alignment of the trail is desired it would likely require significant cost expenditures for segments of boardwalks and/or puncheons linking areas of accessible grade. For safety and liability concerns, segments of the trail with steep inclines and/or loose rock surfaces are proposed to be replaced with staircases of stabilized natural rock and/or railroad ties. Screening of unsightly areas of fill behind the elementary school with dense native shrubs and trees may want to be considered by the community, but is not currently included in the cost estimate. Excess rock from the Columbia Elementary track and soccer field construction project should be considered for use in the proposed improvements.

Estimated Cost: \$81,000

Potential Lead Agency: Tuolumne County

Timeframe for Implementation: Mid-term

PO-03 –Columbia Trails Wayfinding Signage Enhancement Project**Project Type: Construction**

Project Description: This project proposes to install ten additional trail wayfinding signage facilities in the CCIP planning area at locations to be determined by the community. The signs will indicate the destination and approximate distance. The estimated cost includes the purchase and installation of the signs.

Need/Justification: Lack of trail wayfinding signage facilities was identified during the CCIP planning process as a gap in the existing circulation network. This project proposes the installation of these signs at various location around the community (in addition to those already included in other CCIP projects) in order to provide better wayfinding and encourage the use of the facilities.

Special Planning Issues: Determining which locations in addition to the projects in this document are in need of signage will be completed at project implementation. The construction of signage that encourages the use of the currently inadequate roadway shoulders and/or trails is not recommended.

Estimated Cost: \$11,000

Potential Lead Agency: Tuolumne County

Timeframe for Implementation: Short-term

5.1.5 Proposed Equestrian Projects

Equestrian projects address solutions related to parking and trail facilities dedicated to equestrians. Columbia currently provides very limited facilities to accommodate equestrians. A community desire to develop further facilities was expressed in Steering Committee Meetings and the Community Workshops. Standards for the development of the equestrian facilities can be found in the following publications: *Equestrian Design Guidebook for Trails, Trailheads, and Campgrounds* (2009) and *Recreational Horse Trails in Rural and Wildland Areas: Design, Construction, and Maintenance* (2007). These comprehensive guidelines are recommended to future project teams.

5.1.5.1 Proposed Equestrian Parking (EP) Facilities

Equestrian parking facility projects identify preferred locations to construct horse staging and parking facilities. These facilities have specific design considerations that must be taken into account during future project implementation phases. The co-location of horse parking facilities with standard automobile parking facilities is not the preferred design relationship if an alternative separate facility can be accommodated. The co-location of the facilities can serve to increase the likelihood of implementation however, as funding sources for the design and construction of equestrian facilities are not as common as other sources. Parking facilities are typically located at/near trailhead locations. As specific trails desired to support equestrian

activity have not been identified thus far in the CCIP process, the location of these facilities is preliminary and should be revised following more substantial input.

EP-01 – Central Columbia Equestrian Parking Facility

Project Type: Design/Construction

Project Description: This project proposes the retrofitting of the existing main parking lot in the State Park to accommodate four (4) equestrian stalls. Portions of the center median on the east end of the lot would be paved over to accommodate the required length of the truck and trailer. The estimated cost includes design and construction.

Need/Justification: The need for equestrian parking and staging near the State Park was identified during the CCIP planning process. This location would allow the accommodation of the trailers while possibly serving a dual function as a tour bus stall.

Special Planning Issues: This project is recommended to be done in parallel with the HH-01. Additional similar stalls may want to be considered to better accommodate a greater number of trailers and/or tour buses in a similar fashion. If this option is explored, it is recommended that the center median still retain some areas of planting and group gathering with benches. Either option will need to address the existing drainage pattern down the middle of the center median. Both options would also reduce the number of standard stalls, so a parallel parking capacity increase project (PC-01, PC-02, PC-03) is recommended.

Estimated Cost: \$67,000

Potential Lead Agency: Columbia SHP

Timeframe for Implementation: Mid-term

5.1.5.2 Proposed Equestrian Trail (ET) Facilities

This section identifies preferred locations/alignments to construct equestrian trails in the Columbia area. Equestrian trails have known compatibility issues with bicycle and automobile traffic. To the greatest degree feasible, equestrian facilities that follow alignments where bicycles and/or automobiles are present should be constructed as parallel, separated, unpaved facilities that allow each to operate free of conflict and to avoid damage to the paved surface by equestrian users. The desired width of the separation between trails and width of equestrian treads should be established as a standard for all such facilities. Other amenities desired along the trail alignments should also be explored. It is recommended that existing trail alignments (various BP and PO projects) be explored for potential to incorporate parallel equestrian alignments to maximize trail usage, increase the likelihood of implementation, and explore opportunities for construction efficiencies.

ET-01: Columbia Equestrian Trail Facilities Project**Project Type: Study**

Project Description: Conduct a study to identify potential equestrian facility locations, either independent or adjacent to existing and/or proposed trails in the Columbia Community. The study would identify locations, detailed project descriptions specifically identifying improvements to be made, potential funding sources, special planning issues (such as land ownership, public rights of way, etc.), trail facility design standards, establish trail easement and liability protections for land owners, and would prioritize the facilities. Equestrian parking/staging location adjacent the trailheads should be considered to increase use.

Need/Justification: There was a strong desire expressed at Community Workshop No.1 and No. 2 to increase opportunities for horse-riding in and around the Columbia Community.

Special Planning Issues: At Community Workshop No.2 it was identified that the best method to identify these trails was through a study where the equestrian community could collectively identify facilities. Locations for potential trails and staging areas were documented at/near the following locations at Community Workshop No. 2: Marble Quarry RV Resort (staging lot and adjacent trails) and near the trout farm (staging lot and adjacent trails). The old sewer plant site near the trout farm on Springfield Road is owned by State Parks. Coordination with State Parks Sector and District Superintendents and resource specialists, and approval by the State Parks Director would be required for this site. Planning trails in the Columbia area will require coordination with multiple agencies and property owners including, but not limited to, TUD, BLM, State Parks and local land owners whose property is affected by any proposed trails. Trail easements and liability protections for these owners will need to be developed as part of the project.

Estimated Cost: \$45,000

Potential Lead Agency: Tuolumne County

Timeframe for Implementation: Mid-term

5.1.6 Other Proposed Projects

This section is reserved for projects that are more comprehensive in nature and/or do not belong to a single section.

5.1.6.1 Other (OT) Projects**OT-01 – Columbia Road, Trail, and Landscape Maintenance Funding Alternatives****Feasibility Study****Project Type: Study**

Project Description: This project proposes the study of potential maintenance funding sources for transportation amenities in Columbia including existing and proposed roadways, trails, multi-use paths, parks, landscape areas, and streetscapes. The project would perform a tax based analysis, community demographics analysis, determine annual maintenance and R&R costs for CCIP projects, provide a general overview of funding options, provide an overview of adoption and implementation requirements, and perform a high level estimate of assessment/fees per project.

Need/Justification: The Columbia Community Plan (CCP) and RTP both identify the need to establish maintenance funding sources for existing and proposed transportation infrastructure. The CCP goes further to encourage the identification of maintenance funding sources for landscape improvement projects as well. Following the completion of the CCIP, maintenance funding options for the different types of facilities proposed are recommended to be studied and policies established to ensure the continued operation of the facilities over time.

Special Planning Issues: Some communities require the establishment of a dedicated, adequate maintenance funding source prior to the approval to design or construct a facility, even if sufficient funds for construction are already available.

Estimated Cost: \$8,000

Potential Lead Agency: TCTC

Timeframe for Implementation: Short-term

OT-02 – Columbia Streetscape Master Plan

Project Type: Planning Document

Project Description: This project proposes the development of a document supplemental to the CCIP that further develops, describes and graphically illustrates the overall vision for the enhancement of streetscapes and traffic calming measures in the Columbia Community. The general focus of the plan would be the Parrotts Ferry Road corridor and the State Park area. Development of the plan would include working with the community and State Park to produce conceptual design plans of proposed CCIP improvements and standard details for sidewalks, enhanced pedestrian crossings, parking areas, street tree plantings, street lights, street furnishings and open spaces. The document would be separate and complement the CCIP.

Need/Justification: The CCIP recommends and verbally describes circulation improvements in the Columbia Community; however, conceptual designs and details of the facilities are not included. Following the completion of the CCIP, the implementation of the proposed improvements will likely occur over a period of ten or more years and will be designed and reviewed by a variety of County staff, consultants, and public officials. With historic and scenic quality being integral to the community's identity, it is recommended that the improvements in the CCIP also undergo a level of uniform quality control of conceptual designs to ensure the vision for the improvements is not lost over time. The Parrotts Ferry Road corridor and the State Park are the location of the most intensive and design sensitive streetscape improvements and are therefore recommended as the focus of the master plan. A visually appealing graphic plan may also help attract potential developers into infill properties downtown and along Parrotts Ferry Rd increasing the economic viability and stability of the Columbia Community.

Special Planning Issues: Collaboration with the community and State Park officials is essential to completing this plan. Draft conceptual plans should be prepared, with comments solicited through public outreach such as a community workshop, then refined for publication. A need for additional traffic calming measures on Main St, Fulton St, Bigler St and State St was noted by the community at Community Workshop No.1 and should be addressed in this plan.

Estimated Cost: \$80,000

Potential Lead Agency: TCTC

Timeframe for Implementation: Mid-term

5.1.6.2 Other Projects Not Included for Prioritization

Several projects were identified in past planning documents but have not been included for prioritization at this time. These included the Jamestown-Columbia Bicycle/Pedestrian Connector (RTP, Bikeways and Trails Plan), the Columbia-Main Tuolumne Ditch Trail (Bikeways and Trails Plan), a bicycle/pedestrian facility loop along the shoulders of Parrotts Ferry Rd, Sawmill Flat Rd and Yankee Hill Rd, and several non-priority recreational trails in the Recreation Master Plan.

Jamestown-Columbia Bicycle/Pedestrian Connector: This project is a Tier 1b facility in the RTP and will be implemented as part of that planning effort.

Columbia-Main Tuolumne Ditch Trail: This project was identified in the Tuolumne County Recreation Master Plan. The large majority of the trail occurs outside the CCIP planning area. The project should be addressed at the County level.

Walkable loop along Parrotts Ferry Rd., Sawmill Flat Rd. and Yankee Hill Rd: This was a notable project mentioned in the community workshop. The cost/constructability of this project along segments of Sawmill Flat Rd north of Columbia College Dr. and Yankee Hill Rd. east of Bigler are believed to outweigh the benefits at this time. The project is recommended to be retained as part of a long-range planning effort.

Recreation Master Plan Non-priority Recreational Trails: The appendices of the 1996 Tuolumne County Recreation Master Plan list other potential non-priority trails, some of which occur in the CCIP planning boundary. These projects are recommended to be retained as part of a long-range recreational planning effort.

5.2 PRIORITIZED SOLUTIONS

The methodology developed to prioritize CCIP projects consists of eight criteria. These categories were developed by Stantec in collaboration with TCTC and the project Steering Committee. The intent of each category is explained below as well as an explanation of how the points were awarded for each criterion. The prioritized results are shown at the end of Section 5.2.

5.2.1 Effectiveness in Mitigating Gaps (10 point maximum)

The intent of the 'Number of Gaps Filled' criteria was to prioritize projects which are able to fill the most number of 'gaps' (or deficiencies) identified in the current transportation network. Projects were assigned one point for each gap they are able to help fill. The list of gaps used was distilled from community input received during the CCIP process and deficiencies identified in past planning documents. The gaps used are as follows:

- An adequate transportation plan is needed for the community
- Facilities/programs that encourage alternative transportation are needed
- Wayfinding signage is lacking in the community
- Enhanced safety lighting is needed in the community
- Improved vehicular flow/access to community destinations is needed
- Parking capacity is inadequate
- Accessibility of the circulation network needs improvement
- Lack of a definable "village center"
- Traffic volumes are causing undesirable conditions
- Community in need of beautification projects along transportation infrastructure
- Need funding for maintenance and transportation infrastructure
- Alleviation of vehicular chokepoints is needed
- Improved historic and/or aesthetic image of the transportation network is needed

5.2.2 Number of Uses Addressed (5 points possible)

The intent of the 'Number of Uses Addressed' criteria was to prioritize projects which are able to facilitate the greatest number of transportation-related 'uses'. Projects were assigned one point for each 'use' they helped provide. The list of uses is as follows:

- Pedestrian Path
- Bicycle Path
- Equestrian Trail
- Public Transit
- Vehicular

5.2.3 Relative Ease of Implementation (4 points possible)

The intent of the 'Relative Ease of Implementation' criteria was to prioritize projects which are easiest to implement in the short-term over projects which require a higher expenditure of time and human resources. This analysis was based on combined professional judgment and experiences of both Stantec and the County. Projects were divided into three categories: Easy, Medium, and Difficult.

5.2.4 Project Cost (4 points possible)

The intent of the 'Project Cost' criteria was to prioritize projects based on the capital investment needed for implementation. Projects were divided into three categories: less than fifty-thousand dollars, between fifty thousand and five hundred thousand dollars, and over five-hundred thousand dollars.

5.2.5 Likelihood of Funding (8 points possible)

The intent of the 'Likelihood of Funding' criteria was to prioritize projects which are more likely to receive funding, as these projects have the greatest chance of being implemented. This analysis was based on combined professional judgment and experiences of both Stantec and the County.

5.2.6 Nexus to a Transportation Project (2 points possible)

The intent of the 'Nexus to a Transportation Project' criteria was to prioritize projects in which the primary intent is to serve a transportation-related use over those with a primarily recreation-related use. The projects were given two points if their primary intent was a transportation-related use and no points if their intent was a recreation-related use.

5.2.7 Community Support (10 point maximum)

The intent of the Community Support criteria was to identify projects that have consistently received community support over time and during the CCIP process. Projects were awarded one point for each community/county planning document or CCIP community outreach methodology in which the project was identified. Also projects such as crossings and/or studies which are related (but not necessarily identified/prioritized in the documents) were awarded one point. They were awarded an additional point if they were considered a high-priority and/or highly-favored project in the document. Two points maximum were available for each source. The points awarded were based on the following documents and community outreach methods:

- Columbia Community Plan (2009)
- Tuolumne County RTP (2006/2007)
- Tuolumne County Bikeways and Trails Plan (2004)
- Tuolumne County Recreation Master Plan (1996)
- Columbia State Park General Development Plan (1979)

- CCIP Steering Committee (2008-2009)
- CCIP Community Workshop No. 1 (2009)
- CCIP Community Workshop No.2 (2010)

5.2.8 Relationship to Parrotts Ferry Rd Corridor (2 point maximum)

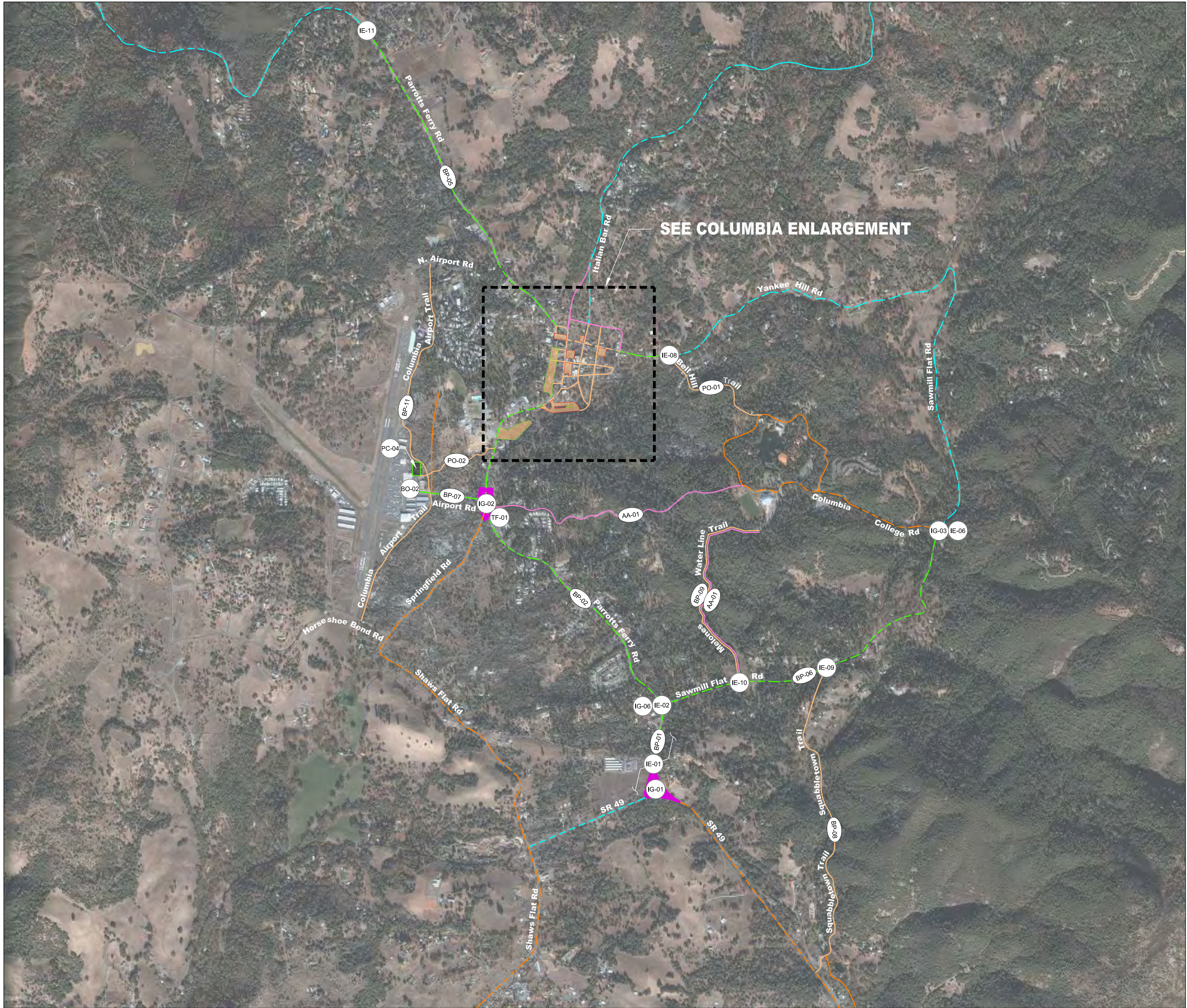
The intent of the 'Relationship to the Parrotts Ferry Rd Corridor' criteria was to prioritize projects which occur along the community's primary development corridor. These projects are effective in linking the greatest number of community facilities together, improving overall connectivity of the community. Two points were awarded for projects which occur directly on Parrotts Ferry Rd. One point was awarded for projects that link directly into Parrotts Ferry Rd.

5.2.9 Highest Ranked Prioritized Solutions

Tables 4a, 4b, and 4c show the evaluation and ranking criteria for all the identified projects. Table 4a shows the projects in their original categories (same order as Table 3) with the ranking overall at far right. Table 4b shows the projects ranking by generalized funding category. Table 4c shows the projects in actual order of overall ranking. In general, the projects with the highest priority include:

1. (BR-01) Parrotts Ferry Road Bypass Feasibility Study (capacity project)
2. (BO-01) Columbia State Historic Park Bicycle Parking Facilities (bike/pedestrian project)
3. (IG-06) Sawmill and Parrotts Ferry Road Intersection Modification Study (capacity project)
4. (BP-01 – BP-04) Columbia to Sonora Bicycle/Pedestrian Connector (bike/pedestrian project)
5. (IG-01) Pedro Wye Intersection Improvement Study (safety project)
6. (PO-03) Columbia Trails Wayfinding Signage Improvement Project (bike/pedestrian project)
7. (BO-02) Columbia Airport Bicycle Rental and Parking Facilities (bike/pedestrian project)
8. (IG-03, IG-05) Columbia State Historic Park Gateway Enhancement (aesthetic project)
9. (IE-07) Columbia Elementary Crossing Project (safety project)
10. (OT-01) Columbia Road, Trail, and Landscape Maintenance Funding Alternatives Feasibility Study (other)
11. (TF-01) Columbia Inter-Agency Transit Shelter Project (transit project)
12. (IG-02) Columbia 'Star' Intersection Improvement Study (safety project)
13. (BP-07) Airport Road Bicycle/Pedestrian Improvement Project (bike/pedestrian project)
14. (IE-04) State and Broadway Intersection Enhancement Project (aesthetic project)
15. (IE-01) Columbia Community Gateway Monument Project (aesthetic project)

The project prioritization was used to assist in identifying project implementation timeframes as short-term (0 to 3 year), mid-term (3 to 10 years), or long-term (over 10 years). In general, the top 15 projects are considered to be short term. There was a natural break in prioritization of the mid-term and long-term projects. However, actual implementation timeframes will be dependent upon funding availability.



Not shown: HH-03, BR-01, TS-01, TS-02, TF-02, BP-10, BO-01, PO-03, ET-01, OT-01, OT-02

COLUMBIA PROJECTS

PROPOSED PROJECTS MAP

Columbia Circulation Improvement Plan

Columbia , CA



COLUMBIA ENLARGEMENT

LEGEND

XX-00	CCIP ID NO. (LOCATION TBD; THIS GENERAL AREA)	—	NON-CCIP PROJECT ALIGNMENT (INDEPENDENT FACILITY)
XX-00	CCIP ID NO. (AT LOCATION)	- - -	NON-CCIP PROJECT ALIGNMENT (SHOULDER-ONLY)
XX-00	CCIP ID NO. (ALONG ALIGNMENT)	—	LONG RANGE PLANNING PROJECT (NON-PRIORITIZED, INDEP. FACILITY)
—	PROJECT ALIGNMENT (ASPHALT FACILITY)	—	LONG RANGE PLANNING PROJECT (NON-PRIORITIZED, SHOULDER-ONLY)
- - -	PROJECT ALIGNMENT (ASPHALT SHOULDER-ONLY)	—	PROJECT LIMITS (NEW 'NATURAL-LOOKING ALTERNATIVE' SURFACED FACILITY, OVER EXISTING)**
—	PROJECT ALIGNMENT ('NATURAL-LOOKING ALTERNATIVE' SURFACED FACILITY)**	—	PROJECT LIMITS (NEW 'NATURAL LOOKING ALTERNATIVE' SURFACED FACILITY)**
- - -	PROJECT ALIGNMENT ('NATURAL-LOOKING ALTERNATIVE' SURFACED FACILITY, SHOULDER-ONLY)**	—	PROJECT LIMITS (NEW ASPHALT FACILITY)
—	ALTERNATIVE ACCESS/BYPASS POTENTIAL ALIGNMENT	—	APPROXIMATE STUDY LIMITS

CATEGORIES

IG	INTERSECTION GEOMETRY
IE	INTERSECTION ENHANCEMENT
HH	HISTORIC HERITAGE ENHANCEMENT
PC	PARKING CAPACITY
AA	ALTERNATIVE ACCESS ROUTE
BR	BYPASS ROUTE
TS	TRANSIT SERVICE
TF	TRANSIT FACILITIES
BP	COMBO BICYCLE/PEDESTRIAN
BO	BICYCLE-ONLY
PO	PEDESTRIAN-ONLY
EP	EQUESTRIAN PARKING
ET	EQUESTRIAN TRAIL
OT	OTHER PROJECTS

**Note: 'Natural-looking Alternative' is a term used in the CCIP to refer to a paving material mimicking dirt.



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Client/Project
TUOLUMNE COUNTY TRANSPORTATION COUNCIL
COLUMBIA CIRCULATION IMPROVEMENT PLAN
COLUMBIA, CALIFORNIA
Figure No.
FIGURE 14
Title
PROPOSED PROJECTS MAP
Date 04/22/10
Project Number 184100801

Table 3: Proposed Projects List										
CCIP ID- No.	Name: Description	Route - Segment - Location	Approximate Size of Project	Unit Type	Cost (in 2009 \$)	Lead Agency(s)	Type of Potential Funding Source	Relationship to other CCIP segments	Timeframe for Implementation	Project/Gap ID Source(s)
POTENTIAL HIGHWAY AND ROAD PROJECTS										
Potential Intersection Geometry (IG) Projects										
IG-01	Pedro Wye Intersection Improvement Study: study alternative intersection geometry options to improve safety for motorists and pedestrians	Pedro Wye - SR49 and Parrotts Ferry Rd	1	allow	\$25,000	TCTC/Caltrans	Safety	IE-01, BP-01, HH-03, OT-01, OT-02	Short-term	CCIP-TCTC
IG-02	Columbia 'Star' Intersection Improvement Study: study intersection improvements to increase bicycle/pedestrian safety & increase economic viability of adjacent parcels	Parrotts Ferry Rd, Howser Ln, Springfield Rd, Airport Rd Intersection	1	allow	\$25,000	TCTC	Safety	BP-02, BP-03, BP-07, BR-01, AA-01, HH-03, OT-01, OT-02, TF-01	Short-term	CCIP-STN
IG-03	Columbia College Intersection Improvement Project: design and construct improvements to address current and future conflicts	Sawmill Flat Rd and Columbia College Dr	1	allow	\$75,000	County/Columbia College	Safety	IE-06, BP-06, OT-01	Mid-term	CCIP-SC1
IG-04	Columbia Elementary South Exit Improvement Project: design and construct acceleration lane for southbound traffic.	Parrotts Ferry Rd and south entry/exit from Columbia Elem.	1000	s.f.	\$225,000	County/Columbia Elementary	Safety	BP-03, IE-07, OT-01	Mid-term	CCIP-PW1
IG-05	Church Lane Intersection Modification Project: add center median lane on Parrotts Ferry Rd north and south of Church Lane.	Parrotts Ferry Rd and Church Ln	1	allow	\$125,000	County	Safety	BP-03, IE-03, OT-01	Mid-term	CCIP-PW1
IG-06	Sawmill and Parrotts Ferry Intersection Modification Study: study intersection improvements to increase bicycle/pedestrian safety as adjacent improvements warrant.	Parrotts Ferry Rd and Sawmill Flat Rd	1	allow	\$25,000	TCTC	Safety	IE-02, HH-03, BP-01, BP-02, BP-06, OT-01, OT-02	Short-term	CCIP-STN
Potential Intersection Enhancement (IE) Projects										
IE-01	Columbia Community Gateway Monument Project: install one (1) community entry monumentation per approved design and location	Pedro Wye - SR49 and Parrotts Ferry Rd	1	allow	\$100,000	Tuolumne County/Caltrans	Aesthetics	IG-01, BP-01, HH-03, OT-01, OT-02	Short-term	CCP, CCIP-PW1
IE-02	Parrotts Ferry Rd and Sawmill Flat Rd Crossing Project: install enhanced crossing facility designs	Parrotts Ferry Rd and Sawmill Flat Rd	3 facilites, striping and signing	allow	\$90,000	County	Safety	IG-06, HH-03, BP-01, BP-02, BP-06, OT-01, OT-02	Mid-term	CCIP-STN
IE-03	Columbia State Historic Park Gateway Enhancement Project South: install enhanced crossing facility designs as an improved safety and traffic calming measure	Parrotts Ferry Rd/Broadway St and Columbia St	1	allow	\$73,000	County/Columbia SHP	Aesthetics	IG-05, SE-01, BP-03, BP-04, HH-02, HH-03, PC-02, OT-01, OT-02	Short-term	CCIP-STN, CCIP-PW1
IE-04	State and Broadway Intersection Enhancement Project: install enhanced crossing facility designs as an improved safety and traffic calming measure	Parrotts Ferry Rd/Broadway St and State St	1	allow	\$69,000	County/Columbia SHP	Aesthetics	SE-01, HH-01, HH-02, HH-03, BP-04, PC-01, PC-02, OT-01, OT-02	Short-term	CCIP-STN, CCIP-PW1
IE-05	Columbia State Historic Park Gateway Enhancement Project North: install enhanced crossing facility designs as an improved safety and traffic calming measure	Parrotts Ferry Rd/Broadway St and N. Gold St	1	allow	\$105,000	County/Columbia SHP	Aesthetics	SE-01, HH-01, HH-02, HH-03, BR-02, BR-03, BP-04, BP-05, OT-01, OT-02	Short-term	CCIP-STN, CCIP-PW1
IE-06	Sawmill Flat Rd and Columbia College Dr Crossing Project: install enhanced crossing facility designs	Sawmill Flat Rd and Columbia College Dr	3 facilites, striping and signing	allow	\$76,000	County/Columbia College	Safety	IG-03, BP-06, OT-01	Mid-term	CCIP-STN
IE-07	Columbia Elementary Crossings Project: install enhanced crossing facility designs, north and south of school	Parrotts Ferry Rd at East End of Dondero Trial	2 facilites, striping and signing	allow	\$10,000	County/Columbia Elementary	Safety	IG-04, BP-03, PO-02, OT-01, OT-02	Short-term	CCIP-STN
IE-08	Bell Hill Trail Crossing Project: install county standard crossing facilities	Yankee Hill Rd at North end of Bell Hill Trail	1 facility, striping and signing	allow	\$1,000	County	Safety	PO-01, OT-01, OT-02	Mid-term	CCIP-STN
IE-09	Squabbletown Trail Crossing Project: install county standard crossing facilities	Sawmill Flat Rd at North End of Squabbletown Trail	2 facilites, striping and signing	allow	\$2,000	County	Safety	BP-06, BP-08, OT-01	Mid-term	CCIP-STN
IE-10	Melones Waterline Trail Project, Columbia College Bicycle/Pedestrian South Entry Crossing Project: install county standard crossing facilities	Sawmill Flat Rd at South End of Columbia College Bicycle/Pedestrian South Entry	1 facility, striping and signing	allow	\$1,000	County	Safety	BP-06, BP-09, OT-01	Mid-term	CCIP-STN
IE-11	Parrotts Ferry and Marble Quarry Crossing Project: install county standard crossing facilities	Parrotts Ferry Rd at Marble Quarry Rd	3 facilites, striping and signing	allow	\$3,000	County	Safety	BP-05, OT-01	Mid-term	CCIP-STN

Table 3: Proposed Projects List										
CCIP ID- No.	Name: Description	Route - Segment - Location	Approximate Size of Project	Unit Type	Cost (in 2009 \$)	Lead Agency(s)	Type of Potential Funding Source	Relationship to other CCIP segments	Timeframe for Implementation	Project/Gap ID Source(s)
Potential Historic Heritage (HH) Roadway Enhancement Projects										
HH-01	Columbia Historic Heritage Street Surface Enhancement Projects: Grind/recompact existing asphalt street surfacing and apply 2" 'natural looking alternative' surfacing .	Columbia State Historic Park - Multiple Streets	5490	l.f.	\$2,310,000	Columbia SHP	Aesthetics	IE-03, IE-04, IE-05, SE-01, HH-02, HH-03, PC-01, PC-02, BR-01, BR-02, BR-03, TF-01, BP-04, BP-05, BO-01, PO-03, EP-01, OT-01, OT-02	Long-term	CSHPGDP
HH-02	Columbia Historic Heritage Parking Enhancement Projects: Grind/recompact existing asphalt or gravel parking surfacing and apply 2" 'natural looking alternative' surfacing. 15% assumed planted as visual screen.	Columbia State Historic Park - Multiple Parking Areas	181900	s.f.	\$2,584,000	Columbia SHP	Aesthetics	IE-03, IE-04, IE-05, SE-01, HH-01, HH-03, BR-01, BR-02, TF-01, BP-04, BP-05, BO-01, PO-03, EP-01, OT-01, OT-02	Long-term	CSHPGDP
HH-03	California Heritage Corridor Designation Project: pursue and designate the segment of roadway and install signage.	Parrotts Ferry Rd - SR 49 to N Airport Rd	6	sign	\$5,000	Columbia SHP	Aesthetics	ALL PROJECTS ALONG SPECIFIED LENGTH	Long-term	CCIP-SC
Potential Parking Capacity (PC) Projects										
PC-01	Gold and State Parking Facility North: Install approx 100 stall parking facility. 'natural looking alternative'	North of the Intersection of S Gold St and State St	26,800	s.f.	\$416,000	Columbia SHP	Parking	IE-04, SE-01, HH-01, BP-04, OT-01, OT-02,	Long-term	CSHPGDP
PC-02	Gold and State Parking Facility South: Install approx 250 stall parking facility. 'natural looking alternative'	South of the Intersection of S Gold St and State St	80,300	s.f.	\$1,428,000	Columbia SHP	Parking	IE-04, SE-01, HH-01, BP-04, OT-01, OT-02	Long-term	CSHPGDP
PC-03	Columbia State Historic Park Parking Facility South: install approximately 150 stall parking facility. 'natural looking alternative'	Accoss from Columbia Elementary School	105,000	s.f.	\$1,778,000	Columbia SHP	Parking	IB-04, IE-07, BP-03, PO-02, OT-01-OT-02	Long-term	CSHPGDP
PC-04	Columbia Airport Parking Facility Expansion: expand current facility to accommodate approx 40 more stalls. Asphalt	At north end of existing facility	31,300	s.f.	\$380,000	Tuolumne County Airports	Parking	BP-07, BO-02, PO-02, OT-01	Long-term	AMP
Potential Alternative Access (AA) Route Projects										
AA-01	Columbia College Secondary Entry Feasibility Study: study potential alignments of a secondary vehicular entrance to the College	Columbia College - route TBD in the study	1	report	\$30,000	TCTC/Columbia College	Capacity	IG-02, BR-01, BP-02, BP-03, BP-07, BP-09, OT-01, OT-02	Mid-term	CCIP-SC, CCIP-PW1, B&TP
Potential Bypass Route (BR) Projects										
BR-01	Parrotts Ferry Road Bypass Feasibility Study: study (3) possible alignments of a bypass to alleviate through and industrial traffic in the historic district and provide safe crossing for bicycles/pedestrians	{Starting at intersection of Springfield Rd or Loop Rd, extending North to Parrotts Ferry Rd NW of State Park}	1	allow	\$200,000	TCTC/County	Capacity	IG-02, AA-01, BR-01, BP-02, BP-03, BP-05, BP-07, BP-11, PO-02, OT-01, OT-02	Short-term	GP, RTP, CCP, CSHPGDP, CCIP-SC, CCIP-PW1
BR-02	Jackson St Diverter Feasibility Study: study possible traffic diversion route impacts and provide recommendations	Bigler St to Pacific St to Parrotts Ferry Rd/Broadway St	1	allow	\$15,000	County/Columbia SHP	Aesthetics	SE-01, HH-01, HH-02, BR-03, BP-04, PO-01, OT-01, OT-02	Mid-term	CSHPGDP, CCIP-SC1
BR-03	Italian Bar Rd Bypass Feasibility Study: study the feasibility of the realignment of Italian Bar Rd to divert traffic from State Historic Park	Starting approx 1000' North along Italian Bar Rd, Extending West of Italian Bar Rd to West End of Pacific Street	1	allow	\$15,000	County/Columbia SHP	Aesthetics	SE-01, HH-01, HH-02, BR-02, BP-04, OT-01, OT-02	Long-term	CSHPGDP

Table 3: Proposed Projects List										
CCIP ID- No.	Name: Description	Route - Segment - Location	Approximate Size of Project	Unit Type	Cost (in 2009 \$)	Lead Agency(s)	Type of Potential Funding Source	Relationship to other CCIP segments	Timeframe for Implementation	Project/Gap ID Source(s)
POTENTIAL PUBLIC TRANSIT PROJECTS										
Potential Transit Service (TS) Enhancement Projects										
TS-01	Columbia Intra-Connector Shuttle Feasibility Study: recommend be completed with next County transit plan	Serving Community of Columbia	1	allow	\$15,000	Tuolumne County Transit	Transit	TBD Pending Report	Mid-term	CCIP-SC
TS-02	Columbia Transit Service Deficiency Survey: Survey current population to see where new transit services would be beneficial. recommend be completed with next County transit plan.	Columbia Planning Area	1	allow	\$5,000	Tuolumne County Transit	Transit	TBD Pending Report	Mid-term	[CCP], CCIP-STN
Potential Transit Facilities(TF) Enhancement Projects										
TF-01	Columbia Inter-Agency Transit Shelter Project: install transit shelter along with site modifications as identified in the grant application.	Parcel immediately south of Howser Lane; Leti's Fruit Stand	1	allow	\$206,000	Tuolumne County Transit	Transit	IG-02, BP-02, BP-03, BP-07, BR-01, AA-01, HH-03, OT-01, OT-02	Mid-term	CCFMP
TF-02	Columbia Park 'n Ride Facility Project (30 spaces)	Parcel immediately south of Howser Lane; Leti's Fruit Stand	10000	s.f.	\$157,000	Tuolumne County Transit	Transit	IG-02, BP-02, BP-03, BP-07, BR-01, AA-01, HH-03, OT-01, OT-02	Mid-term	CCIP-SC
POTENTIAL BICYCLE AND PEDESTRIAN PROJECTS										
Potential Combination Bicycle and Pedestrian (BP) Projects										
BP-01	Sonora to Columbia College Bicycle/Pedestrian Connector: Segment B, Columbia to Sonora Bicycle/Pedestrian Connector (Segment D): install 4' (min) - 6' (preferred) class II bicycle/pedestrian facilities.	Parrotts Ferry Road – SR49 to Sawmill Flat Rd (Union Hill Rd to Sawmill Flat only priced here - see project description)	2100	I.f.	\$102,000	County/Caltrans	Bicycle/Pedestrian	IG-01, IE-01, IE-02, BP-02, BP-06, EP-01, EP-03	Short-term	B&TP, RTP, CCP
BP-02	Columbia to Sonora Bicycle/Pedestrian Connector (Segment C): install 4' (min) - 6' (preferred) class II bicycle/pedestrian facilities.	Parrotts Ferry Road – Airport Rd to Sawmill Flat Rd	9940	I.f.	\$1,259,000	County	Bicycle/Pedestrian	IG-02, IE-02, AA-01, BR-01, BP-01, BP-03, BP-06, BP-07,	Short-term	CCP, CCIP-SC1, CCIP-CW1
BP-03	Columbia to Sonora Bicycle/Pedestrian Connector Segment B: install 4' (min) - 6' (preferred) class II bicycle/pedestrian facilities.	Parrotts Ferry Road – Columbia St to Airport Rd	4400	I.f.	\$602,000	County	Bicycle/Pedestrian	IG-02, IG-04, IG-05, IE-03, IE-07, HH-02, BP-07, PO-02, EP-01,	Short-term	CCP, CCIP-SC1, CCIP-CW1
BP-04	Columbia to Sonora Bicycle/Pedestrian Connector (Segment A): install 4' (min) - 6' (preferred) class II bicycle/pedestrian facilities. 'natural looking alternative'	Parrotts Ferry Road – N Gold St to Columbia St	3420	I.f.	\$322,000	County /Columbia SHP	Bicycle/Pedestrian	01, HH-02, EP-01, PC-01, PC-02, BR-02, BR-03, OT-01, OT-02	Short-term	CCP, CCIP-SC1, CCIP-CW1
BP-05	Columbia to Marble Quarry Bicycle/Pedestrian Connector: install 4' (min) - 6' (preferred) class II bicycle/pedestrian facilities.	Parrotts Ferry Road – N Gold St to Marble Quarry Road	12500	I.f.	\$762,000	County	Bicycle/Pedestrian	IE-05, IE-11, HH-01, HH-02, BP-04, BP-05, OT-01, OT-02	Mid-term	CCP
BP-06	Sonora to Columbia College Bicycle/Pedestrian Connector: Segment C: install 4' (min) - 6' (preferred) class II bicycle/pedestrian facilities.	Sawmill Flat Rd – Parrotts Ferry Rd to Columbia College Dr	13060	I.f.	\$1,177,000	County	Bicycle/Pedestrian	IG-03, IE-02, IE-06, IE-09, IE-10, BP-01, BP-02, BP-08, BP-09, OT-01	Mid-term	B&TP, RTP, CCP
BP-07	Airport Rd Bicycle/Pedestrian Improvement Project: install 4' (min) - 6' (preferred) class II bicycle/pedestrian facilities.	Airport Rd – Parrotts Ferry Rd to Columbia Airport Parking Lot	2360	I.f.	\$222,000	County	Bicycle/Pedestrian	IG-02, AA-07, BR-01, BO-02, PO-02, OT-01	Short-term	CCIP-SC1, CCIP-CW1
BP-08	Squabbletown Trail Improvement Project: install 10' wide multi-use bicycle/pedestrian facility	Squabbletown Trail – Sawmill Flat Rd to Hwy 49 at Browns Flat	5900	I.f.	\$817,000	County	Bicycle/Pedestrian	IE-09, BP-06, OT-01	Long-term	RMP, CCP
BP-09	Melones Water Line Trail Improvement Project, Columbia College Bicycle/Pedestrian South Entry Project: install 10' wide multi-use bicycle/pedestrian facility	Melones Water Line – Sawmill Flat Rd to Columbia College	3900	I.f.	\$540,000	County	Bicycle/Pedestrian	IE-10, AA-01, BP-06, OT-01	Long-term	CCP

Table 3: Proposed Projects List										
CCIP ID- No.	Name: Description	Route - Segment - Location	Approximate Size of Project	Unit Type	Cost (in 2009 \$)	Lead Agency(s)	Type of Potential Funding Source	Relationship to other CCIP segments	Timeframe for Implementation	Project/Gap ID Source(s)
BP-10	Stagecoach Trail Improvement Project - install 10' wide multi-use bicycle/pedestrian facility.	Stagecoach Trail - Columbia State Historic Park to Columbia College	TBD	l.f.	TBD	County	Bicycle/Pedestrian	TBD	Mid-term	CCP
BP-11	Columbia Airport Trail Improvement Project - install 10' wide multi-use facility.	Columbia Airport Trail - Horseshoe Bend Road to North Airport Road	7040	l.f.	\$981,000	Tuolumne County Airports	Bicycle/Pedestrian	PC-04, BP-07, PO-02	Long-term	CCP
Potential Bicycle-Only (BO) Projects										
BO-01	Columbia State Historic Park Bicycle Parking Facilities: install 4 bicycle parking facility/s at various locations	Columbia State Historic Park - location/s TBD pending site visit and coordination with CSHP	4	rack	\$18,000	Columbia SHP	Bicycle/Pedestrian	TBD Pending Locations	Short-term	CSHPGDP, CCIP-STN
BO-02	Columbia Airport Bicycle Rental and Parking Facilities: provide bicycle rental opportunities and install bicycle parking facilities	Columbia Airport - location/s TBD pending site visit and coordination with Airport	1	rack	\$14,000	Tuolumne County Airports	Bicycle/Pedestrian	BP-07, PO-02, OT-01	Short-term	CCIP-SC1, CCIP-PW1
Potential Pedestrian-Only (PO) Projects										
PO-01	Bell Hill Trail Improvement Project: install 4' wide pedestrian facility and shoulders. Partial 'natural looking alternative'	Bell Hill Trail – Yankee Hill Rd at Jackson St to Columbia College	4121	l.f.	\$349,000	County/Columbia College	Bicycle/Pedestrian	IE-08, SE-01, BR-02, OT-01, OT-02	Mid-term	RMP, CCP
PO-02	Dondero Trail Pedestrian Improvement Project: install 4' wide pedestrian facility	Dondero Trail – Columbia Airport Parking Lot to Parrotts Ferry Rd	1410	l.f.	\$81,000	County	Bicycle/Pedestrian	IG-04, SE-01, IE-07, BR-01, BP-03, BO-02, OT-01, OT-02	Mid-term	RMP, CCP
PO-03	Columbia Trails Wayfinding Signage Improvement Project: install 10 enhanced trail signs at various locations around Columbia indicating lengths and destinations	TBD	10	ea	\$11,000	County	Bicycle/Pedestrian	TBD Pending Locations	Short-term	CCCIP-CW1
POTENTIAL EQUESTRIAN PROJECTS										
Potential Equestrian Parking (EP) Facilites										
EP-01	Central Columbia Equestrian Parking Facility: construct 4-stall equestrian parking facility.	In the existing State Park Main Lot.	3500	s.f.	\$67,000	Columbia SHP	Other	IE-04, SE-01, HH-01, HH-02, BP-04, OT-01, OT-02	Mid-term	CCIP-STN, CCIP-CW1, CCIP-SC1
Potential Equestrian Trail (ET) Facilities										
ET-01	Columbia Equestrian Trail Facilities Project: study to identify locations for construction of bridal trails/staging lots	adjacent and/or parallel to other CCIP bicycle/pedestrian facilities	1	ea	\$45,000	County	Other	TBD	Mid-term	CCIP-SC1, CCIP-PW1
POTENTIAL OTHER PROJECTS										
Potential Other Projects										
OT-01	Columbia Road, Trail, and Landscape Maintenance Funding Alternatives Feasibility Study: study potential for establishing funding programs	Columbia Planning Area (per Columbia Community Plan)	1	allow	\$8,000	TCTC	Other	TBD Pending Report	Short-term	CCP
OT-02	Columbia Streetscape Master Plan: establish master plan for street trees, focal points, street lighting standards, , etc.	Focus: Parrotts Ferry Road and Columbia SHP Areas.	1	allow	\$80,000	TCTC	Other	TBD Pending Report	Mid-term	CCP

Timeframe:
 Short-term = 0 to 3 years
 Mid-term = 3 to 10 years
 Long-term = over 10 years

Table 4a: Project Prioritization - By Project Type

CCIP ID- No.	Name: Description	Lead Agency	Type of Project (primary)	Type of Funding	Number of gaps filled	Number of uses addressed	Relative Ease of Implementation	Project Cost	Likelihood of funding	Nexus to a transportation project	Community Support	Relationship to Parrotts Ferry Rd Corridor?	Total Points	Overall Rank
			s=study		1 per gap	1 per use	Easy - 4	<\$50k - 4	Very - 8	Yes - 2	past/pres	On - 2		
			d=design		(limit 10)	(limit 5)	Mod - 2	50-500 - 2	Mod - 4	No - 0	(limit 10)	Links - 1		
			c=const				Diff - 0	>500k - 0	Low - 0			Off - 0		
POTENTIAL HIGHWAY AND ROAD PROJECTS														
Potential Bypass Route (BR) Projects														
BR-01	Parrotts Ferry Road Bypass Feasibility Study	TCTC/ County	s	capacity	8	3	4	2	4	2	10	2	35	1
BR-02	Jackson St Diverter Feasibility Study	County/ SHP	s	aesth	7	3	4	4	0	2	3	0	23	21
BR-03	Italian Bar Rd Bypass Feasibility Study	County/ SHP	s	aesth	2	1	4	4	0	2	1	0	14	43
Potential Intersection Geometry (IG) Projects														
IG-01	Pedro Wye Intersection Improvement Study	TCTC/ Caltrans	s	safety	7	3	2	4	4	2	7	2	31	5
IG-02	Columbia 'Star' Intersection Improvement Study	TCTC	s	safety	6	3	2	4	0	2	7	2	26	15
IG-03	Columbia College Intersection Improvement Project	County/ College	d	safety	4	3	2	2	0	2	4	0	17	38
IG-04	Columbia Elementary South Exit Improvement Project	County/ Elementary	d	safety	4	3	2	2	4	2	3	2	22	24
IG-05	Church Lane Intersection Modification Project	County	d	safety	3	1	2	2	4	2	3	2	19	31
IG-06	Sawmill and Parrotts Ferry Intersection Modification Study	TCTC	s	capacity	6	3	2	4	8	2	6	2	33	3
Potential Intersection Enhancement (IE) Projects														
IE-01	Columbia Community Gateway Monument Project	County/ Caltrans	d	aesth	2	2	2	2	8	0	7	2	25	18
IE-02	Parrotts and Sawmill Crossing Project	County	d	safety	5	3	2	2	0	2	6	2	22	24
IE-03	Columbia State Historic Park Gateway Enhancement Project South	County/ SHP	d	aesth	6	3	2	2	4	2	7	2	28	9
IE-04	State and Broadway Intersection Enhancement Project	County/ SHP	d	aesth	5	3	2	2	4	2	5	2	25	18
IE-05	Columbia State Historic Park Gateway Enhancement Project North	County/ SHP	d	aesth	5	3	2	2	4	2	6	2	26	15
IE-06	Sawmill and Columbia College Crossing Project	County/ College	d	safety	5	3	2	2	0	2	4	0	18	36
IE-07	Columbia Elementary Crossing Project	County/ Elementary	d	safety	4	2	2	4	4	2	8	2	28	9
IE-08	Bell Hill Trail Crossing Project	County	c	safety	4	2	4	4	4	0	5	0	23	21
IE-09	Squabbletown Trail Crossing Project	County	c	safety	4	3	4	4	4	0	5	0	24	20

Table 4a: Project Prioritization - By Project Type

CCIP ID-No.	Name: Description	Lead Agency	Type of Project (primary)	Type of Funding	Number of gaps filled	Number of uses addressed	Relative Ease of Implementation	Project Cost	Likelihood of funding	Nexus to a transportation project	Community Support	Relationship to Parrotts Ferry Rd Corridor?	Total Points	Overall Rank
			s=study		1 per gap	1 per use	Easy - 4	<\$50k - 4	Very - 8	Yes - 2	past/pres	On - 2		
			d=design		(limit 10)	(limit 5)	Mod - 2	50-500 - 2	Mod - 4	No - 0	(limit 10)	Links - 1		
			c=const				Diff - 0	>500k - 0	Low - 0			Off - 0		
IE-10	Melones Waterline Trail Project, Columbia College Bicycle/Pedestrian South Entry Crossing Project	County	c	safety	4	3	0	4	0	2	4	0	17	38
IE-11	Parrotts Ferry and Marble Quarry Crossing Project	County	c	safety	4	3	2	4	0	2	3	2	20	29
Potential Historic Heritage (HH) Roadway Enhancement Projects														
HH-01	Columbia Historic Heritage Street Surface Enhancement Projects	SHP	d	aesth	2	1	0	0	0	0	3	1	7	52
HH-02	Columbia Historic Heritage Parking Enhancement Projects	SHP	d	aesth	3	1	0	0	0	0	3	1	8	51
HH-03	California Heritage Corridor Designation Project	SHP	d	aesth	3	1	2	4	4	0	3	2	19	31
Potential Parking Capacity (PC) Projects														
PC-01	Gold and State Parking Facility North	SHP	d	parking	4	1	2	2	0	0	2	1	12	47
PC-02	Gold and State Parking Facility South	SHP	d	parking	4	1	2	0	0	0	2	1	10	49
PC-03	Columbia State Historic Park Parking Facility South	SHP	d	parking	4	1	2	0	0	0	3	2	12	47
PC-04	Columbia Airport Parking Facility Expansion	Airport	d	parking	3	1	2	2	0	0	1	0	9	50
Potential Alternative Access (AA) Route Projects														
AA-01	Columbia College Secondary Entry Feasibility Study	TCTC/ College	s	capacity	6	3	0	4	0	2	7	1	23	21
POTENTIAL PUBLIC TRANSIT PROJECTS														
Potential Transit Service (TS) Enhancement Projects														
TS-01	Columbia Intra-Connector Shuttle Feasibility Study	TC Transit	s	transit	3	2	4	4	0	2	3	1	19	31
TS-02	Columbia Transit Service Deficiency Survey	TC Transit	s	transit	2	2	4	4	0	2	2	1	17	38
Potential Transit Facilities (TF) Enhancement Projects														
TF-01	Columbia Inter-Agency Transit Shelter Project	TC Transit	d	transit	5	2	2	2	8	2	5	1	27	12
TF-02	Columbia Park 'n Ride Facility Project	TC Transit	d	transit	6	2	2	2	4	2	2	1	21	28

Table 4a: Project Prioritization - By Project Type

CCIP ID- No.	Name: Description	Lead Agency	Type of Project (primary)	Type of Funding	Number of gaps filled	Number of uses addressed	Relative Ease of Implementation	Project Cost	Likelihood of funding	Nexus to a transportation project	Community Support	Relationship to Parrotts Ferry Rd Corridor?	Total Points	Overall Rank
			s=study		1 per gap	1 per use	Easy - 4	<\$50k - 4	Very - 8	Yes - 2	past/pres	On - 2		
			d=design		(limit 10)	(limit 5)	Mod - 2	50-500 - 2	Mod - 4	No - 0	(limit 10)	Links - 1		
			c=const				Diff - 0	>500k - 0	Low - 0			Off - 0		
POTENTIAL BICYCLE AND PEDESTRIAN PROJECTS														
Potential Combination Bicycle and Pedestrian (BP) Projects														
BP-01	Sonora to Columbia College Bicycle/Pedestrian Connector: (Segment B), Columbia to Sonora Bicycle/Pedestrian Connector (Segment D)	County/ Caltrans	d	b/p	4	3	2	2	8	2	10	2	33	3
BP-02	Columbia to Sonora Bicycle/Pedestrian Connector (Segment C)	County	d	b/p	4	3	2	0	4	2	10	2	27	12
BP-03	Columbia to Sonora Bicycle/Pedestrian Connector (Segment B)	County	d	b/p	4	3	2	0	4	2	10	2	27	12
BP-04	Columbia to Sonora Bicycle/Pedestrian Connector (Segment A)	County/ SHP	d	b/p	5	3	2	2	4	2	10	2	30	7
BP-05	Columbia to Marble Quarry Bicycle/Pedestrian Connector	County	d	b/p	4	3	2	0	0	2	5	2	18	36
BP-06	Sonora to Columbia College Bicycle/Pedestrian Connector (Segment C)	County	d	b/p	4	3	0	0	0	2	9	1	19	31
BP-07	Airport Rd Bicycle/Pedestrian Improvement Project	County	d	b/p	4	3	4	2	4	2	6	1	26	15
BP-08	Squabbletown Trail Improvement Project	County	d	b/p	4	3	0	0	0	0	6	0	13	45
BP-09	Melones Water Line Trail Improvement Project, Columbia College Bicycle/Pedestrian South Entry Project	County	d	b/p	4	3	0	0	0	0	7	0	14	43
BP-10	Stagecoach Trail Improvement Project	County	d	b/p	4	3	2	2	0	2	6	0	19	31
BP-11	Columbia Airport Trail Improvement Project	Airport	d	b/p	5	3	2	0	0	0	3	0	13	45
Potential Bicycle-Only (BO) Projects														
BO-01	Columbia State Historic Park Bicycle Parking Facilities	SHP	c	b/p	4	2	4	4	8	2	9	1	34	2
BO-02	Columbia Airport Bicycle Rental and Parking Facilities	Airport	c	b/p	4	2	4	4	8	2	6	0	30	7
Potential Pedestrian-Only (PO) Projects														
PO-01	Bell Hill Trail Improvement Project, Columbia College Ped. North Entry Project	County/ College	d	b/p	6	1	4	2	0	2	6	1	22	24
PO-02	Dondero Trail Pedestrian Improvement Project	County	d	b/p	4	1	0	2	4	0	10	1	22	24

Table 4a: Project Prioritization - By Project Type

CCIP ID- No.	Name: Description	Lead Agency	Type of Project (primary)	Type of Funding	Number of gaps filled	Number of uses addressed	Relative Ease of Implementation	Project Cost	Likelihood of funding	Nexus to a transportation project	Community Support	Relationship to Parrotts Ferry Rd Corridor?	Total Points	Overall Rank
			s=study		1 per gap	1 per use	Easy - 4	<\$50k - 4	Very - 8	Yes - 2	past/pres	On - 2		
			d=design		(limit 10)	(limit 5)	Mod - 2	50-500 - 2	Mod - 4	No - 0	(limit 10)	Links - 1		
			c=const				Diff - 0	>500k - 0	Low - 0			Off - 0		
PO-03	Columbia Trails Wayfinding Signage Improvement Project	County	c	b/p	4	1	4	4	8	0	9	1	31	5
POTENTIAL EQUESTRIAN PROJECTS														
Potential Equestrian Parking (EP) Facilities														
EP-01	Central Columbia Equestrian Parking Facility	SHP	d	other	4	2	2	2	0	0	6	1	17	38
Potential Equestrian Trail (ET) Facilities														
ET-01	Columbia Equestrian Trail Facilities Project	County	s	other	5	1	2	2	0	0	6	1	17	38
POTENTIAL OTHER PROJECTS														
Potential Other Projects														
OT-01	Columbia Road, Trail, and Landscape Maintenance Funding Alternatives Feasibility Study	TCTC	s	other	4	3	2	4	2	2	9	2	28	9
OT-02	Columbia Streetscape Master Plan	TCTC	s	aesth	4	2	2	2	4	0	4	2	20	29

Uses: Pedestrian Path
Bicycle Path
Equestrian Trail
Transit
Vehicular

Gaps:

1. Adequate transportation plan
2. Facilities/programs that encourage alternative transportation
3. Wayfinding signage
4. Safety lighting
5. Vehicular access to community destinations
6. Parking capacity
7. Accessibility of the circulation network
8. Definable 'village center'
9. Traffic volumes in community are causing undesirable conditions
10. Community in need of beautification projects along transportation infrastructure
11. Funding for maintenance of transportation infrastructure
12. Vehicular chokepoints
13. Historic image

Table 4b: Project Prioritization - By Funding Category

CCIP ID- No.	Name: Description	Lead Agency	Type of Project (primary)	Type of Funding	Number of gaps filled	Number of uses addressed	Relative Ease of Implementation	Project Cost	Likelihood of funding	Nexus to a transportation project	Community Support	Relationship to Parrotts Ferry Rd Corridor?	Total Points	Overall Rank
			s=study		1 per gap	1 per use	Easy - 4	<\$50k - 4	Very - 8	Yes - 2	past/pres	On - 2		
			d=design		(limit 10)	(limit 5)	Mod - 2	50-500 - 2	Mod - 4	No - 0	(limit 10)	Links - 1		
			c=const				Diff - 0	>500k - 0	Low - 0			Off - 0		
AESTHETICS														
IE-03	Columbia State Historic Park Gateway Enhancement Project South	County/ SHP	d	aesth	6	3	2	2	4	2	7	2	28	1
IE-05	Columbia State Historic Park Gateway Enhancement Project North	County/ SHP	d	aesth	5	3	2	2	4	2	6	2	26	2
IE-04	State and Broadway Intersection Enhancement Project	County/ SHP	d	aesth	5	3	2	2	4	2	5	2	25	3
IE-01	Columbia Community Gateway Monument Project	County/ Caltrans	d	aesth	2	2	2	2	8	0	7	2	25	3
BR-02	Jackson St Diverter Feasibility Study	County/ SHP	s	aesth	7	3	4	4	0	2	3	0	23	5
OT-02	Columbia Streetscape Master Plan	TCTC	s	aesth	4	2	2	2	4	0	4	2	20	6
HH-03	California Heritage Corridor Designation Project	SHP	d	aesth	3	1	2	4	4	0	3	2	19	7
BR-03	Italian Bar Rd Bypass Feasibility Study	County/ SHP	s	aesth	2	1	4	4	0	2	1	0	14	8
HH-02	Columbia Historic Heritage Parking Enhancement Projects	SHP	d	aesth	3	1	0	0	0	0	3	1	8	9
HH-01	Columbia Historic Heritage Street Surface Enhancement Projects	SHP	d	aesth	2	1	0	0	0	0	3	1	7	10
BICYCLE AND PEDESTRIAN														
BO-01	Columbia State Historic Park Bicycle Parking Facilities	SHP	c	b/p	4	2	4	4	8	2	9	1	34	1
BP-01	Sonora to Columbia College Bicycle/Pedestrian Connector: (Segment B), Columbia to Sonora Bicycle/Pedestrian Connector (Segment D)	County/ Caltrans	d	b/p	4	3	2	2	8	2	10	2	33	2
PO-03	Columbia Trails Wayfinding Signage Improvement Project	County	c	b/p	4	1	4	4	8	0	9	1	31	3
BP-04	Columbia to Sonora Bicycle/Pedestrian Connector (Segment A)	County/ SHP	d	b/p	5	3	2	2	4	2	10	2	30	4
BO-02	Columbia Airport Bicycle Rental and Parking Facilities	Airport	c	b/p	4	2	4	4	8	2	6	0	30	4
BP-02	Columbia to Sonora Bicycle/Pedestrian Connector (Segment C)	County	d	b/p	4	3	2	0	4	2	10	2	27	6
BP-03	Columbia to Sonora Bicycle/Pedestrian Connector (Segment B)	County	d	b/p	4	3	2	0	4	2	10	2	27	6

Table 4b: Project Prioritization - By Funding Category

CCIP ID-No.	Name: Description	Lead Agency	Type of Project (primary)	Type of Funding	Number of gaps filled	Number of uses addressed	Relative Ease of Implementation	Project Cost	Likelihood of funding	Nexus to a transportation project	Community Support	Relationship to Parrotts Ferry Rd Corridor?	Total Points	Overall Rank
			s=study		1 per gap	1 per use	Easy - 4	<\$50k - 4	Very - 8	Yes - 2	past/pres	On - 2		
			d=design		(limit 10)	(limit 5)	Mod - 2	50-500 - 2	Mod - 4	No - 0	(limit 10)	Links - 1		
			c=const				Diff - 0	>500k - 0	Low - 0			Off - 0		
BP-07	Airport Rd Bicycle/Pedestrian Improvement Project	County	d	b/p	4	3	4	2	4	2	6	1	26	8
PO-01	Bell Hill Trail Improvement Project, Columbia College Ped. North Entry Project	County/ College	d	b/p	6	1	4	2	0	2	6	1	22	9
PO-02	Dondero Trail Pedestrian Improvement Project	County	d	b/p	4	1	0	2	4	0	10	1	22	9
BP-06	Sonora to Columbia College Bicycle/Pedestrian Connector (Segment C)	County	d	b/p	4	3	0	0	0	2	9	1	19	11
BP-10	Stagecoach Trail Improvement Project	County	d	b/p	4	3	2	2	0	2	6	0	19	11
BP-05	Columbia to Marble Quarry Bicycle/Pedestrian Connector	County	d	b/p	4	3	2	0	0	2	5	2	18	13
BP-09	Melones Water Line Trail Improvement Project, Columbia College Bicycle/Pedestrian South Entry Project	County	d	b/p	4	3	0	0	0	0	7	0	14	14
BP-08	Squabbletown Trail Improvement Project	County	d	b/p	4	3	0	0	0	0	6	0	13	15
BP-11	Columbia Airport Trail Improvement Project	Airport	d	b/p	5	3	2	0	0	0	3	0	13	15
CAPACITY														
BR-01	Parrotts Ferry Road Bypass Feasibility Study	TCTC/ County	s	capacity	8	3	4	2	4	2	10	2	35	1
IG-06	Sawmill and Parrotts Ferry Intersection Modification Study	TCTC	s	capacity	6	3	2	4	8	2	6	2	33	2
AA-01	Columbia College Secondary Entry Feasibility Study	TCTC/ College	s	capacity	6	3	0	4	0	2	7	1	23	3
OTHER														
OT-01	Columbia Road, Trail, and Landscape Maintenance Funding Alternatives Feasibility Study	TCTC	s	other	4	3	2	4	2	2	9	2	28	1
EP-01	Central Columbia Equestrian Parking Facility	SHP	d	other	4	2	2	2	0	0	6	1	17	2
ET-01	Columbia Equestrian Trail Facilities Project	County	s	other	5	1	2	2	0	0	6	1	17	2
PARKING														
PC-01	Gold and State Parking Facility North	SHP	d	parking	4	1	2	2	0	0	2	1	12	1
PC-03	Columbia State Historic Park Parking Facility South	SHP	d	parking	4	1	2	0	0	0	3	2	12	1

Table 4b: Project Prioritization - By Funding Category

CCIP ID-No.	Name: Description	Lead Agency	Type of Project (primary)	Type of Funding	Number of gaps filled	Number of uses addressed	Relative Ease of Implementation	Project Cost	Likelihood of funding	Nexus to a transportation project	Community Support	Relationship to Parrotts Ferry Rd Corridor?	Total Points	Overall Rank
			s=study		1 per gap	1 per use	Easy - 4	<\$50k - 4	Very - 8	Yes - 2	past/pres	On - 2		
			d=design		(limit 10)	(limit 5)	Mod - 2	50-500 - 2	Mod - 4	No - 0	(limit 10)	Links - 1		
			c=const				Diff - 0	>500k - 0	Low - 0			Off - 0		
PC-02	Gold and State Parking Facility South	SHP	d	parking	4	1	2	0	0	0	2	1	10	3
PC-04	Columbia Airport Parking Facility Expansion	Airport	d	parking	3	1	2	2	0	0	1	0	9	4
SAFETY														
IG-01	Pedro Wye Intersection Improvement Study	TCTC/ Caltrans	s	safety	7	3	2	4	4	2	7	2	31	1
IE-07	Columbia Elementary Crossing Project	County/ Elementary	d	safety	4	2	2	4	4	2	8	2	28	2
IG-02	Columbia 'Star' Intersection Improvement Study	TCTC	s	safety	6	3	2	4	0	2	7	2	26	3
IE-09	Squabbletown Trail Crossing Project	County	c	safety	4	3	4	4	4	0	5	0	24	4
IE-08	Bell Hill Trail Crossing Project	County	c	safety	4	2	4	4	4	0	5	0	23	5
IG-04	Columbia Elementary South Exit Improvement Project	County/ Elementary	d	safety	4	3	2	2	4	2	3	2	22	6
IE-02	Parrotts and Sawmill Crossing Project	County	d	safety	5	3	2	2	0	2	6	2	22	6
IE-11	Parrotts Ferry and Marble Quarry Crossing Project	County	c	safety	4	3	2	4	0	2	3	2	20	8
IG-05	Church Lane Intersection Modification Project	County	d	safety	3	1	2	2	4	2	3	2	19	9
IE-06	Sawmill and Columbia College Crossing Project	County/ College	d	safety	5	3	2	2	0	2	4	0	18	10
IG-03	Columbia College Intersection Improvement Project	County/ College	d	safety	4	3	2	2	0	2	4	0	17	11
IE-10	Melones Waterline Trail Project, Columbia College Bicycle/Pedestrian South Entry Crossing Project	County	c	safety	4	3	0	4	0	2	4	0	17	11
TRANSIT														
TF-01	Columbia Inter-Agency Transit Shelter Project	TC Transit	d	transit	5	2	2	2	8	2	5	1	27	1
TF-02	Columbia Park 'n Ride Facility Project	TC Transit	d	transit	6	2	2	2	4	2	2	1	21	2
TS-01	Columbia Intra-Connector Shuttle Feasibility Study	TC Transit	s	transit	3	2	4	4	0	2	3	1	19	3
TS-02	Columbia Transit Service Deficiency Survey	TC Transit	s	transit	2	2	4	4	0	2	2	1	17	4

See Table 4a for list of Uses and Gaps

Table 4c: Project Prioritization - By Overall Rank

CCIP ID- No.	Name: Description	Lead Agency	Type of Project (primary)	Type of Funding	Number of gaps filled	Number of uses addressed	Relative Ease of Implementation	Project Cost	Likelihood of funding	Nexus to a transportation project	Community Support	Relationship to Parrotts Ferry Rd Corridor?	Total Points	Overall Rank
			s=study		1 per gap	1 per use	Easy - 4	<\$50k - 4	Very - 8	Yes - 2	past/pres	On - 2		
			d=design		(limit 10)	(limit 5)	Mod - 2	50-500 - 2	Mod - 4	No - 0	(limit 10)	Links - 1		
			c=const				Diff - 0	>500k - 0	Low - 0			Off - 0		
BR-01	Parrotts Ferry Road Bypass Feasibility Study	TCTC/ County	s	capacity	8	3	4	2	4	2	10	2	35	1
BO-01	Columbia State Historic Park Bicycle Parking Facilities	SHP	c	b/p	4	2	4	4	8	2	9	1	34	2
IG-06	Sawmill and Parrotts Ferry Intersection Modification Study	TCTC	s	capacity	6	3	2	4	8	2	6	2	33	3
BP-01	Sonora to Columbia College Bicycle/Pedestrian Connector: (Segment B), Columbia to Sonora Bicycle/Pedestrian Connector (Segment D)	County/ Caltrans	d	b/p	4	3	2	2	8	2	10	2	33	3
IG-01	Pedro Wye Intersection Improvement Study	TCTC/ Caltrans	s	safety	7	3	2	4	4	2	7	2	31	5
PO-03	Columbia Trails Wayfinding Signage Improvement Project	County	c	b/p	4	1	4	4	8	0	9	1	31	5
BP-04	Columbia to Sonora Bicycle/Pedestrian Connector (Segment A)	County/ SHP	d	b/p	5	3	2	2	4	2	10	2	30	7
BO-02	Columbia Airport Bicycle Rental and Parking Facilities	Airport	c	b/p	4	2	4	4	8	2	6	0	30	7
IE-03	Columbia State Historic Park Gateway Enhancement Project South	County/ SHP	d	aesth	6	3	2	2	4	2	7	2	28	9
IE-07	Columbia Elementary Crossing Project	County/ Elementary	d	safety	4	2	2	4	4	2	8	2	28	9
OT-01	Columbia Road, Trail, and Landscape Maintenance Funding Alternatives Feasibility Study	TCTC	s	other	4	3	2	4	2	2	9	2	28	9
TF-01	Columbia Inter-Agency Transit Shelter Project	TC Transit	d	transit	5	2	2	2	8	2	5	1	27	12
BP-02	Columbia to Sonora Bicycle/Pedestrian Connector (Segment C)	County	d	b/p	4	3	2	0	4	2	10	2	27	12
BP-03	Columbia to Sonora Bicycle/Pedestrian Connector (Segment B)	County	d	b/p	4	3	2	0	4	2	10	2	27	12
IG-02	Columbia 'Star' Intersection Improvement Study	TCTC	s	safety	6	3	2	4	0	2	7	2	26	15
IE-05	Columbia State Historic Park Gateway Enhancement Project North	County/ SHP	d	aesth	5	3	2	2	4	2	6	2	26	15
BP-07	Airport Rd Bicycle/Pedestrian Improvement Project	County	d	b/p	4	3	4	2	4	2	6	1	26	15
IE-04	State and Broadway Intersection Enhancement Project	County/ SHP	d	aesth	5	3	2	2	4	2	5	2	25	18
IE-01	Columbia Community Gateway Monument Project	County/ Caltrans	d	aesth	2	2	2	2	8	0	7	2	25	18

Table 4c: Project Prioritization - By Overall Rank

CCIP ID-No.	Name: Description	Lead Agency	Type of Project (primary)	Type of Funding	Number of gaps filled	Number of uses addressed	Relative Ease of Implementation	Project Cost	Likelihood of funding	Nexus to a transportation project	Community Support	Relationship to Parrotts Ferry Rd Corridor?	Total Points	Overall Rank
			s=study		1 per gap	1 per use	Easy - 4	<\$50k - 4	Very - 8	Yes - 2	past/pres	On - 2		
			d=design		(limit 10)	(limit 5)	Mod - 2	50-500 - 2	Mod - 4	No - 0	(limit 10)	Links - 1		
			c=const				Diff - 0	>500k - 0	Low - 0			Off - 0		
IE-09	Squabbletown Trail Crossing Project	County	c	safety	4	3	4	4	4	0	5	0	24	20
BR-02	Jackson St Diverter Feasibility Study	County/ SHP	s	aesth	7	3	4	4	0	2	3	0	23	21
IE-08	Bell Hill Trail Crossing Project	County	c	safety	4	2	4	4	4	0	5	0	23	21
AA-01	Columbia College Secondary Entry Feasibility Study	TCTC/ College	s	capacity	6	3	0	4	0	2	7	1	23	21
IG-04	Columbia Elementary South Exit Improvement Project	County/ Elementary	d	safety	4	3	2	2	4	2	3	2	22	24
IE-02	Parrotts and Sawmill Crossing Project	County	d	safety	5	3	2	2	0	2	6	2	22	24
PO-01	Bell Hill Trail Improvement Project, Columbia College Ped. North Entry Project	County/ College	d	b/p	6	1	4	2	0	2	6	1	22	24
PO-02	Dondero Trail Pedestrian Improvement Project	County	d	b/p	4	1	0	2	4	0	10	1	22	24
TF-02	Columbia Park 'n Ride Facility Project	TC Transit	d	transit	6	2	2	2	4	2	2	1	21	28
IE-11	Parrotts Ferry and Marble Quarry Crossing Project	County	c	safety	4	3	2	4	0	2	3	2	20	29
OT-02	Columbia Streetscape Master Plan	TCTC	s	aesth	4	2	2	2	4	0	4	2	20	29
IG-05	Church Lane Intersection Modification Project	County	d	safety	3	1	2	2	4	2	3	2	19	31
HH-03	California Heritage Corridor Designation Project	SHP	d	aesth	3	1	2	4	4	0	3	2	19	31
TS-01	Columbia Intra-Connector Shuttle Feasibility Study	TC Transit	s	transit	3	2	4	4	0	2	3	1	19	31
BP-06	Sonora to Columbia College Bicycle/Pedestrian Connector (Segment C)	County	d	b/p	4	3	0	0	0	2	9	1	19	31
BP-10	Stagecoach Trail Improvement Project	County	d	b/p	4	3	2	2	0	2	6	0	19	31
IE-06	Sawmill and Columbia College Crossing Project	County/ College	d	safety	5	3	2	2	0	2	4	0	18	36
BP-05	Columbia to Marble Quarry Bicycle/Pedestrian Connector	County	d	b/p	4	3	2	0	0	2	5	2	18	36
IG-03	Columbia College Intersection Improvement Project	County/ College	d	safety	4	3	2	2	0	2	4	0	17	38
IE-10	Melones Waterline Trail Project, Columbia College Bicycle/Pedestrian South Entry Crossing Project	County	c	safety	4	3	0	4	0	2	4	0	17	38
TS-02	Columbia Transit Service Deficiency Survey	TC Transit	s	transit	2	2	4	4	0	2	2	1	17	38
EP-01	Central Columbia Equestrian Parking Facility	SHP	d	other	4	2	2	2	0	0	6	1	17	38

Table 4c: Project Prioritization - By Overall Rank

CCIP ID- No.	Name: Description	Lead Agency	Type of Project (primary)	Type of Funding	Number of gaps filled	Number of uses addressed	Relative Ease of Implementation	Project Cost	Likelihood of funding	Nexus to a transportation project	Community Support	Relationship to Parrotts Ferry Rd Corridor?	Total Points	Overall Rank
			s=study		1 per gap	1 per use	Easy - 4	<\$50k - 4	Very - 8	Yes - 2	past/pres	On - 2		
			d=design		(limit 10)	(limit 5)	Mod - 2	50-500 - 2	Mod - 4	No - 0	(limit 10)	Links - 1		
			c=const				Diff - 0	>500k - 0	Low - 0			Off - 0		
ET-01	Columbia Equestrian Trail Facilities Project	County	s	other	5	1	2	2	0	0	6	1	17	38
BR-03	Italian Bar Rd Bypass Feasibility Study	County/ SHP	s	aesth	2	1	4	4	0	2	1	0	14	43
BP-09	Melones Water Line Trail Improvement Project, Columbia College Bicycle/Pedestrian South Entry Project	County	d	b/p	4	3	0	0	0	0	7	0	14	43
BP-08	Squabbletown Trail Improvement Project	County	d	b/p	4	3	0	0	0	0	6	0	13	45
BP-11	Columbia Airport Trail Improvement Project	Airport	d	b/p	5	3	2	0	0	0	3	0	13	45
PC-01	Gold and State Parking Facility North	SHP	d	parking	4	1	2	2	0	0	2	1	12	47
PC-03	Columbia State Historic Park Parking Facility South	SHP	d	parking	4	1	2	0	0	0	3	2	12	47
PC-02	Gold and State Parking Facility South	SHP	d	parking	4	1	2	0	0	0	2	1	10	49
PC-04	Columbia Airport Parking Facility Expansion	Airport	d	parking	3	1	2	2	0	0	1	0	9	50
HH-02	Columbia Historic Heritage Parking Enhancement Projects	SHP	d	aesth	3	1	0	0	0	0	3	1	8	51
HH-01	Columbia Historic Heritage Street Surface Enhancement Projects	SHP	d	aesth	2	1	0	0	0	0	3	1	7	52

See Table 4a for list of Uses and Gaps

6.0 Implementation

6.1 IMPLEMENTATION STRATEGY

A combination of relative priority score (see 'Prioritized Solutions'), availability of a suitable and adequate funding source (see 'Potential Funding Sources'), and availability of human resources to pursue the funding will shape the overall implementation strategy of the CCIP. In this sense a project must meet three relative criteria to move forward with implementation:

First, the project must match the requirements of the available funding stream/s. Most funding sources have limitations on the type of project and activities that can be funded through the source. A list of current funding sources and some of their limitations is included in the 'Potential Funding Sources' section of the CCIP. Further explanation of the complexities of grant funding pursuit is also included in that section. Most funding sources are competitive at many scales, including county, region, state, and nationwide.

Second, the project must have the highest priority score in relation to other CCIP projects which also meet the requirements of the funding source being pursued. This means that the priority list will likely change for each funding source (See table 4b for ranking by funding category). Also important to note is that some lead agencies such as the TCTC are responsible for implementation of transportation solutions countywide; therefore, the highest CCIP priority project may also have compete with comparable projects at the county scale for monetary and human resources.

Third, the lead agency must have the human resources available to pursue the funding source at the time that the source becomes available. Funding sources require varying levels of time and energy to prepare applications and each lead agency has varying capacities to dedicate staff to pursuit of funding. Staff capacities and management of their assignments will vary over time and from agency to agency during the lifespan of the CCIP. Alternately outside consultants can be hired to complete grant applications if the agency's funding permits.

As each funding source becomes available, the lead agencies responsible for implementation of the projects herein should use the CCIP as a guidebook to evaluate which project/s accomplish a best fit to compete for funds that they have the capacity to pursue and have the highest overall priority. The successful execution of this implementation strategy will ultimately determine which projects become realities in Columbia.

Applications for most grant programs would need to be submitted by the County, TCTC or a non-profit corporation. Utilizing any of the financing vehicles for local funding would require working through the County to set up the financing vehicle, particularly for long-term maintenance. In most cases additional planning would be required to establish assessment district boundaries or conduct a nexus analysis to impose fees to cover ongoing maintenance expenses (See project OT-01).

6.2 LEAD AGENCIES

Each CCIP project has been designated a lead agency. It is intended that the lead agency be responsible for pursuing funding and coordinating the identified project. For projects with multiple lead agencies the responsibilities may be shared.

6.3 POTENTIAL FUNDING SOURCES

In implementing the Columbia Circulation Improvement Plan, it will be essential to develop long term funding strategies to design, construct, and maintain the improvements envisioned in this Plan. The primary purpose of this section is to identify and briefly describe potential funding sources and financing vehicles for the costs associated with implementation of the improvement program recommended in this Plan. The project summary table in Chapter 5 (Table 3) categorizes types of funding sources as safety, capacity, aesthetic, bicycle/pedestrian, transit, and other. The funding programs identified in this section primarily fall into one or two of these categories.

Many of the lead agencies identified in the CCIP have dedicated staff tracking and applying to potential funding sources. There are literally thousands of potential sources. There are hundreds of publications and web sites for this purpose, but in the end it takes time and perseverance along with political and community support. Each source has different requirements for the activity, matching funds, application procedures, qualifying criteria, etc. Many of these funding programs undergo changes in their rules and guidelines from cycle to cycle. In some cases this means that even the participating lenders are not intimately familiar with the current rules and must be guided through the process.

The funding sources described in this section are intended as potential avenues for funding as opposed to a clear roadmap to guaranteed dollars. An ongoing effort will need to be made to seek out and apply for various grants and loans as implementation proceeds.

6.3.1 Caltrans Programs

Transportation Enhancement (TE) Program

This is a reimbursable capital-improvement program. Projects must comply with federal environmental requirements and other federal regulations, including those for considering disadvantaged business enterprises in consultant selection and for paying prevailing wages during construction. Transportation Enhancement activities must have a direct relationship – by function, proximity or impact – to the surface transportation system. Activities must be over and above normal projects, including mitigation.

Caltrans-Safe Routes to School (SR2S)

Established in 1999, Caltrans, in consultation with the California Highway Patrol (CHP), makes grants available to local governmental agencies under the program based upon the results of a statewide competition. The goals of the program are to reduce injuries and fatalities to school children and to encourage increased walking and bicycling among students. The program

achieves these goals by constructing facilities that enhance the safety for pedestrians and bicyclists. By enhancing the safety of the pathways, trails, sidewalks, and crossings, the likelihood of attracting and encouraging additional students to walk and bike increases. Funds are awarded annually, and applications are solicited in October. These funds are for safety and bicycle/pedestrian projects.

Caltrans-Bicycle Transportation Account (BTA)

The Bicycle Transportation Account (BTA) provides state funds for city and county projects that improve safety and convenience for bicycle commuters. To be eligible for BTA funds, a city or county must prepare and adopt a Bicycle Transportation Plan (BTP) that complies with Streets and Highways Code Section 891.2. These funds are for safety and bicycle/pedestrian projects.

Caltrans Environmental Justice Grants for Planning (EJG4P)

The purpose of the Environmental Justice Grants is to promote more public involvement by diverse and underserved low-income and minority communities in the planning for transportation projects to prevent or mitigate disproportionate, negative impacts while improving their mobility, access to services, equity, affordable housing and economic opportunities. Grants are for planning purposes. The maximum grant is \$250,000 with a 10% local match can be in-kind contributions. The annual application process is in October. These funds could be used for transit projects.

Caltrans Safety Program (SP)

These funds are disbursed by Caltrans HQ in Sacramento. They are more difficult to qualify for and generally require a demonstrated record of accidents. These funds are for safety projects.

Caltrans Community-Based Transportation Planning (CBTP)

The purpose of this grant program is to fund coordinated transportation and land use planning projects that encourage community involvement and partnership. Projects should support livable community concepts and promote community identity and quality of life. Grants are for planning. A maximum grant is \$300,000 with a local match requirement of 20% (10% of which is in kind). The annual application process is in October.

Environmental Enhancement and Mitigation Program (CT:EEMP)

Caltrans has established a state fund called the Environmental Enhancement and Mitigation Program to fund beautification improvements to roadsides to mitigate the effects of transportation projects. Typical grants can range from \$200,000 to \$250,000 and up to a 25% local match is usually required. These funds could be used for aesthetic projects.

Office of Traffic Safety (OTS) Programs

The Office of Traffic Safety's mission is to obtain and effectively administer traffic safety grant funds to reduce deaths, injuries and economic losses resulting from traffic related collisions. Each October - November, OTS mails Requests for Concept Papers to more than 3,000 eligible agencies outlining the opportunity to participate in the program and the requirements to compete for available funds. OTS grants touch as many state and local agencies as possible.

There are eight program priority areas earmarked for grant funding: Alcohol and Other Drugs, Occupant Protection, Pedestrian and Bicycle. These funds are for safety projects.

6.3.2 State Funding

Environmental Enhancement and Mitigation Program (S:EEMP)

The Environmental Enhancement and Mitigation Program (EEMP) was established by the Legislature in 1989. It offers a total of \$10 million each year for grants to local, state, and federal governmental agencies and to nonprofit organizations for projects to mitigate the environmental impacts caused by new or modified state transportation facilities. Eligible projects must be directly or indirectly related to the environmental impact of the modification of an existing transportation facility (CA Constitution, Art. XIX, Sec.1) or construction of a new transportation facility. Grants are awarded in three categories:

Highway Landscape and Urban Forestry: Projects designed improve air quality through the planting of trees and other suitable plants.

Resource Lands: Projects for the acquisition, restoration, or enhancement of watersheds, wildlife habitat, wetlands, forests, or other natural areas.

Roadside Recreational: Projects for the acquisition and/or development of roadside recreational opportunities.

Petroleum Violation Escrow Account (PVEA)

Funds from the PVEA are intended to result in energy savings or displacement of nonrenewable energy. Project Eligibility for PVEA funds are available as a result of Federal Court decisions and settlement agreements against a number of oil companies, which ordered refunds to the States for petroleum product price overcharges. PVEA projects must result in energy savings or displace nonrenewable energy and provide restitution to the motoring public who were injured by the oil price overcharges.

6.3.3 State Department of Public Resources

Habitat Conservation Fund Grant Program (HCF)

The Habitat Conservation Fund Grant Program provides funds to local governments under the California Wildlife Protection Act of 1990. Funds of \$2 million are available under the program. Cities, counties and districts are eligible to apply. Eligible districts are defined in Subdivision (b) of Section 5902 of the Public Resources Code. The HCF program requires a dollar for dollar match from a non-state source.

6.3.4 State Treasurer Programs

Sustainable Communities Grant and Loan Program (SCGL)

This program is sponsored by the State Treasurer's Office in their role as the California Pollution Control financing authority. The grants are intended to encourage sustainable development which includes infill development, proximity to transportation, promotion of economic

development in low income areas, support alternative transportation and so forth. The funds can be used for planning or implementation. The maximum grant amount is \$350,000. Total annual amount statewide is \$2.5 million. Counties and cities are eligible and Tuolumne County can submit one application per round.

6.3.5 State Housing and Community Development Programs

Community Development Block Grants (CDBG)

Begun in 1974, the Community Development Block Grant (CDBG) is one of the oldest programs of HUD. The CDBG program provides annual grants on a formula basis to many different types of grantees through several programs. Tuolumne County is not an entitlement county so they must compete each year. The County can receive a total of \$800,000 per year (\$400,000 per grant) from these two programs combined. There are two general categories:

General Allocation: Funds are meant primarily for low income housing. Infrastructure projects generally must be exclusively for low income housing, and cannot be used to pay a share of infrastructure that benefits the full community.

Economic Development (Over the Counter Enterprise Program): Used for infrastructure projects these funds are intended to create jobs for low income residents who have an annual income at or less than 80% of the median income. These funds have been used in the past for improvements to commercial districts with the intention that this would attract new business and in turn create new jobs. Half of the jobs must be below 80% of the County median income and Retail jobs usually qualify. These funds are not appropriated until a new or expanded business is given a permit. The business or the County must guarantee that there will be one job created for each \$35,000 grant, and Collateral is required.

CDBG-Planning & Technical Assistance

These Planning and Technical Assistance grants are for up to \$35,000 each. Each county is eligible for two grants pre year, one for General Allocation projects (housing and infrastructure) and one for Economic Development projects.

6.3.6 Federal Programs

USDA-Rural Business Enterprise Grants (RBEG)

These grants are available to cities and non-profit organizations. The primary criterion is the creation of jobs and economic development, with an emphasis on small businesses. They can be used for training, Revolving Local Funds, technical assistance, capital expenditures, parking, façade improvements and other uses. Not all costs are eligible for Rural Business Enterprise Grant funds. RBEG funds are intended to jump start new projects to meet the critical needs portion of the project. They typically range from \$100,000 to \$200,000. Notification of Funding Availability for the next round is expected in December. They are very competitive.

Regional Surface Transportation (RST) Funds-County

County RST funds must be used on county roads. Currently there are more projects identified than they can be funded, but if the Arnold project can demonstrate its benefits to the County, it could be considered.

Hazard Elimination Safety (HES) Program

The Hazard Elimination Safety Program (HES) is a federal safety program that provides funds for safety improvements on all public roads and highways. These funds are intended to eliminate or reduce the number and/or severity of traffic accidents at locations selected for improvement. The amount of funds allocated to the local HES Program each year may range from \$10 million to \$16 million. Each year, local agencies compete for HES funds by submitting candidate safety projects to Caltrans for review and analysis. Caltrans prioritizes these projects statewide, and releases an annual HES Program Plan that identifies the projects that are approved for funding. These funds are for safety projects.

Transportation and Community and System Preservation Pilot Program

The Transportation and Community and System Preservation Pilot (TCSP) Program has provided funding over five years to State and local governments to develop innovative strategies that use transportation to build livable communities. Created by Section 1221 of the Transportation Equity Act for the 21st Century (TEA-21), \$61.25 million per year for FY 2006 through 2009 of funding is authorized to respond to the concerns of communities from across America that transportation investments should be used to achieve strong, sustainable economic growth while simultaneously ensuring a high quality of life. Access to jobs, traffic congestion, preservation of green space, and the need for a sense of community are just a few of the considerations that must be balanced as communities plan for their futures. Grants provided by TCSP support projects that improve linkages among transportation and community planning and system preservation practices.

Land & Water Conservation Fund (LWCF)

The LWCF program provides matching grants for acquisition or development of lands and facilities that provide or support public outdoor recreation. Local units of government, including cities, counties, and districts that are authorized to acquire, develop, operate and maintain park and recreation areas are eligible to apply.

Congestion Mitigation and Air Quality Improvement (CMAQ)

The CMAQ Program directs funds to transportation projects in Clean Air Act non-attainment areas for ozone and carbon monoxide. These projects should contribute to meeting the attainment of national ambient area air quality standards (NAAQS). CMAQ funds may be used for construction of bicycle transportation facilities and pedestrian walkways, or non-construction projects such as brochures and route maps related to safe bicycle use. Bicycle projects must be primarily for transportation rather than recreation, and be included in a plan developed by each Regional Transportation Planning Agency (TCTC) and the State. SAFETEA-LU made projects that bring sidewalks into compliance with the Americans with Disabilities Act (ADA) eligible for these funds. These funds are for capacity projects.

Federal Recreational Trails Program (F RTP)

A total of \$370 million is provided through 2009 to continue this program to develop and maintain trails for recreational purposes that include pedestrian, equestrian, bicycling and non-motorized snow activities as well as off-road motorized vehicle activities. New eligibilities are provided, including construction and maintenance equipment, real estate costs, educational program costs, State administration costs, and assessment of trail conditions.

Rural Community Development Initiative (RCDI)

Rural Housing Service (RHS) agency within the USDA Rural Development provides \$6.2 million of competitive grant funds for the RCDI program. Applicants must provide matching funds in an amount at least equal to the Federal grant. These grants will be made to qualified intermediary organizations that will provide financial and technical assistance to recipients to develop their capacity and ability to undertake projects related to housing, community facilities, or community and economic development. Congress initially created the RCDI in fiscal year 2000 to develop the capacity and ability of nonprofit organizations, low-income rural communities, or federally recognized tribes to undertake projects related to housing, community facilities, or community and economic development in rural areas. The respective minimum and maximum grant amount per intermediary is \$50,000 and \$300,000.

6.3.7 Private Funding Programs**Corporate Sponsors/Fundraising (PF:CORP)**

Corporate sponsorship has become a major source of funding for large-scale projects with substantial public exposure. Corporate sponsors are potential sources of funding for facilities, where they can put their name on the facilities and/or special events they can be identified with. This could include tourism related companies (such as hotels) or local companies seeking goodwill in the local community. Some communities have successfully used local fundraising campaigns to fund community amenities such as trails and landscaping.

Foundations (PF:FND)

Foundation giving is governed by specific guidelines that stipulate purposes for which grant money can be used, areas of foundation interest and geographic jurisdiction. Competition for foundation funding has become exceedingly competitive, with many foundations deciding to focus on social problems (housing, poverty, medical care, literacy, education, etc.). In most cases they are guided by some affinity for the project, such as location near a company facility or employee sponsorship. However, there are still foundations that provide funding for community facilities, amenities and beautification. A preliminary search identified several sources for these grants including: American Express; America the Beautiful Fund; Keep America Beautiful, Inc. The Pew Charitable Trusts; PepsiCo Foundation; and State Farm Mutual Contributions.

6.3.8 Local Financing Vehicles

Development Impact Fees (DIF)

AB 1600 regulates the way that impact fees are imposed. It requires that a nexus or connection be made between a fee and the type of development on which the fee is imposed. A development fee cannot be imposed to correct an existing problem or pay for improvements needed for existing development.

Benefit Basins (BB)

These are levies imposed within a designated district to finance a specific maintenance or capital improvements. The improvements must specifically benefit the properties included in the designated area. The levy can vary among properties depending on square feet or property frontage. To form an assessment district, 50% approval is required from the property owners. In some cases there are different tiers within the district which pay different assessments. Arnold does not currently have a benefit basin program established.

The Mello Roos Community Facilities District (CFD) Act

Passed in 1982, the Mello Roos Community Facilities District (CFD) Act can generally be used to fund a broad range of improvements. Any bonds issued by a Mello Roos CFD are repaid through the levy of a special tax, which must be approved by a two-thirds vote within the district. There is more flexibility in the structure of the special tax. For example, it can be based on zoning or intensity of development. There is also greater flexibility in drawing the district boundaries. They need not be contiguous.

Marks-Ross Bond Pooling Authority

This technique is used to pool the tax assessment or fee revenue from several jurisdictions or special districts for the purpose of selling bonds to construct public facilities. The funding provided through a special Assessment District or Mellow Roos will be offset by a credit in development fees.

Business Improvement District (BID)

These can be financed through special assessments on commercial properties. Passage requires a 50% approval by the property owners in the District. The assessment must be re-approved every five years. Typically these revenues are used for public space maintenance, security, and promotion.

Mitigations/Exactions (M/E)

These can be imposed whenever a development requires approval by the County. Mitigations are imposed as a condition on a tentative map based on rough proportionality to the impacts created. These conditions reflect on and off site mitigations that must be completed in order to be able to develop. Development agreements are another form of mitigation. Mitigations can include providing adequate pedestrian access, setbacks, parking requirements, lighting, signage, sidewalks, landscaping and so forth. (Note that development standards and design guidelines often can be used to accomplish the same objectives.)

6.4 NEXT STEPS

Once the plan is adopted, implementation will occur as funding is available. When a funding supply becomes available, the CCIP can be referenced to identify the projects that had the highest level of community support for that funding mechanism. TCTC will also be able to program some of the projects into their annual budgeting process. There is often more funding available for safety related projects. The CCIP is intended as a guidebook for agencies and individuals responsible for making Columbia a better place to live, work, and play. As with any planning document, it will ultimately be the responsibility of these individuals, empowered with sustained community participation and support that will determine the degree of success the plans achieve in the community.

