

Submitted to:
**CALAVERAS COUNCIL
OF GOVERNMENTS**

Calaveras County Regional Transportation Plan Update 2001

FINAL REPORT



FEHR & PEERS ASSOCIATES, INC.
Transportation Consultants

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EXECUTIVE SUMMARY

Introduction

The 2001 Regional Transportation Plan (RTP) for Calaveras County was updated by the Calaveras County Council of Governments (COG) to comply with the California Transportation Commission's (CTC) recently adopted 1999 RTP Guidelines. These guidelines have prompted a number of changes in both the format and the content of the RTP. Specifically:

- The RTP emphasizes its linkages with the Regional Transportation Improvement Program (RTIP) and the Interregional Transportation Improvement Program (ITIP), the land-use transportation connection, and public participation activities including outreach to Native Tribal Governments within the County.
- The Policy Element includes the addition of specific policies and objectives that are linked to program level performance measures in the Action Element.
- The Action Element includes programmed and recommended transportation improvements for the following modes:
 - Roadways;
 - Public Transit;
 - Goods Movement
 - Bicycle and Pedestrian;
 - Aviation; and
 - Transportation System Management.

The prioritization of projects within each mode were developed through an application of the program level performance measures, and the planning and decision process of the COG.

- The Financial Element includes updated funding program information and “funding strategy options” for financing future transportation improvements.
- The needs assessment information for all transportation modes has been updated, and future needs and recommended actions are now identified as short-term (0-10 years) or long-term (11 – 22 years). The horizon year for the 2001 RTP is 2022.

Regional Transportation System

Travel in Calaveras County is primarily automobile-oriented due to the rural nature of the local communities, low development densities, and limited options for using alternative modes of travel. The roadway network serving the County is build around a skeleton of State highways including State routes 4, 12, 26, and 49. These routes are functionally classified as minor arterials and interconnect with a network of collector and local streets. Collectively, these roadways form the primary element of the regional transportation system in the County.

Regional and Local Issues

The primary regional and local issues continue to revolve around deteriorating levels of service on State highways 4, 12, 26 and 49, and some regionally significant local roads, with many constraints to be addressed before improvements can be implemented. Increased growth, congestion, recreational and truck traffic, and a general lack of adequate funding for highway improvements are among the most important issues to be addressed. These issues serve as the catalyst for the majority of actions recommended in this RTP.

Regional Goals

Four regional goals guided the development of the transportation system:

- *Goal 1 - Provide a high degree of mobility for people and goods in Calaveras County (linked to Performance Measure 1 – Mobility and Access)*
- *Goal 2 - Promote Equity for all system users (linked to Performance Measure 4 - Equity)*
- *Goal 3 - Enhance sensitivity to the environment in all transportation decisions (linked to Performance Measure 5 – Environmental Quality)*
- *Goal 4 - Support the vitality of the region (linked to Performance Measure 8 – Economic Well Being)*

RTP Review and Public Workshop Summary

A public forum and workshop was held on June 26, 2001 at the Calaveras County Government Center. The purpose of the forum was to present an overview of the RTP planning process including technical information on transportation needs and proposed project solutions. Forum attendees were able to review maps, project lists and costs, and preliminary revenue forecasts from federal, state and local sources. No specific comments were received that would alter the direction or content of the RTP. In subsequent meetings of the Calaveras COG Board of Directors on August 8 and September 12, the overall RTP was reviewed with a focus on improvement projects and their prioritization.. This RTP reflects the overall focus and direction of the Board to maintain the existing transportation system and to provide for congestion relief on the County's major roadways.

Financial Plan

Table 1 provides a summary of the estimated transportation improvement costs and the anticipated revenues by mode. Over the life of the RTP, the largest shortfall (\$203,000,000) is in road improvement costs for both the State and local road system. This shortfall may be reduced significantly pending adoption of the County's Road Impact and Mitigation Program (RIM).

Table 1					
Summary of RTP Costs and Revenues					
(1,000s of 2001 Dollars)					
Transportation System Component	Short-Range Improvement costs (0-10 Years)	Long-Range Improvement Costs (11-22)	Total Cost	Anticipated Revenues	Surplus or Shortfall
Roadway (includes SHOPP)	\$212,200	\$82,500	\$294,700	\$94,400	<-\$-200,300>
Public Transit	\$300	\$400	\$700	\$700	--
Bicycle and Pedestrian	\$480	\$2,400	\$2,900	230	<-\$-2,700>
Aviation	\$1,160	TBD	\$1,160	\$1,160	--
Total	\$214,138	\$85,350	\$299,500	\$96,500	<-\$-203,000>

I. INTRODUCTION

In January 1998, the Calaveras Council of Governments (COG) replaced the Calaveras County Local Transportation Commission (LTC) as the designated Regional Transportation Planning Agency (RTPA) under a Joint Powers Agreement between the County of Calaveras and the City of Angels. Formation of the COG was an effort to improve the transportation planning process in the County. The Calaveras COG is composed of seven Council Members.

Soon after the COG was formed, Senate Bill 45 (1997) was passed and influenced how each RTPA would conduct transportation planning activities. SB45 requires that each RTPA adopt a Regional Transportation Plan (RTP) every four years for counties under 200,000 people. In addition, Regional Transportation Improvement Programs (RTIPs), which nominate priority transportation projects for state funding, are required by the end of odd numbered years.

In 1999, the California Transportation Commission (CTC) adopted a policy, beginning with the 2002 State Transportation Improvement Program (STIP), requiring that RTPs be updated to incorporate new RTP Guidelines. The RTP guidelines were adopted by the CTC in December 1999. The guidelines place more emphasis on the linkages between the RTP, RTIP, Interregional Transportation Improvement Program (ITIP), the land-use transportation connection, the use of performance measures to monitor goals and policies, coordination between public and private entities, including Native Tribal Governments, and air quality.

Note: This is the first RTP for Calaveras County developed under the 1999 RTP guidelines and as such, some of the program level performance measures identified in the Action Element are being used for the first time. It is the County's intent to continually review and monitor the performance measures but, reserves the right to modify them in the future if needed.

The Regional Transportation Plan (RTP) for Calaveras County was last updated in 1996 under the LTC. The basis for the 1996 RTP update included results from the 1995 *Valley-to-Foothill Intermodal Subarea Study* and the 1995 update to the County's travel demand forecasting (TDF) model. The Valley-to-Foothill Study evaluated interregional transportation issues and travel between the Central Valley and the Sierra Foothills.

The Calaveras County 2001 RTP update serves as the planning blueprint to guide transportation investments involving federal, state, and local funding decisions over the next twenty years. The basis for the update by the COG includes previous work developed for the 1996 RTP and new travel data and level-of-service calculations from the Calaveras County Road Improvement/Mitigation Program (RIM) completed in 1998. The RIM study identified an expanded list of roadway deficiencies and needed improvements for County roads that require major upgrades to meet current County design and safety standards. The results from the RIM study were used to update traffic volumes and LOS from the 1996 RTP update, and to supplement the prioritized project list developed during its development.

REGIONAL SETTING

Calaveras County is located in the western foothills of the Sierra Nevada mountain range within the historic Mother Lode area of central California. The County is bordered on the north by the Mokelumne River, which separates it from Amador County, and on the south by the Stanislaus River, which separates it from Tuolumne County. The western boundary of the Calaveras County abuts San Joaquin and Stanislaus Counties, and the eastern boundary abuts Alpine County as shown on Figure 1.

The only incorporated city in the County is the City of Angels (also known as Angels Camp), while the community of San Andreas serves as the County seat. The study area encompasses the entire County, the City of Angels, and all of the unincorporated communities. The unincorporated area of the County includes several smaller communities as shown in Figure 1.

POPULATION

The California Department of Finance (DOF) reported the January 2000 county population at 40,950 – a 2.8 percent increase over 1990 (43,531). January 2001 estimates from the DOF show the population increased approximately 0.4 percent to 41,100. The distribution of population between county and the City of Angels is shown in Table 1.

Table 1		
Calaveras County Population Distribution		
Incorporated Cities	Population January 2000	Population January 2001
City of Angels	3,050	3,150
Unincorporated Area	37,900	37,950
Total County Population	40,950	41,100
Source: State of California, Department of Finance, E-1 City/County Population Estimates, with Annual Percent Change, January 2000 and 2001. Sacramento, California, May 2001.		

TRAVEL PATTERNS

Travel in Calaveras County is primarily automobile-oriented due to the rural nature of the local communities, low development densities, and limited options for using alternative modes of travel. The roadway network serving the County is built around a skeleton of State highways including State Routes 4, 12, 26, and 49. These routes are functionally classified as minor arterials and interconnect with a network of collector and local streets. This interconnected network is the primary element of the transportation system referred to in this RTP.

PURPOSE OF THE PLAN

According to the California Transportation Commission’s 1999 Guidelines, as revised December 1999, the purpose of a regional transportation plan is to accomplish the following:

- Provide an assessment of the current modes of transportation and the potential of new travel options

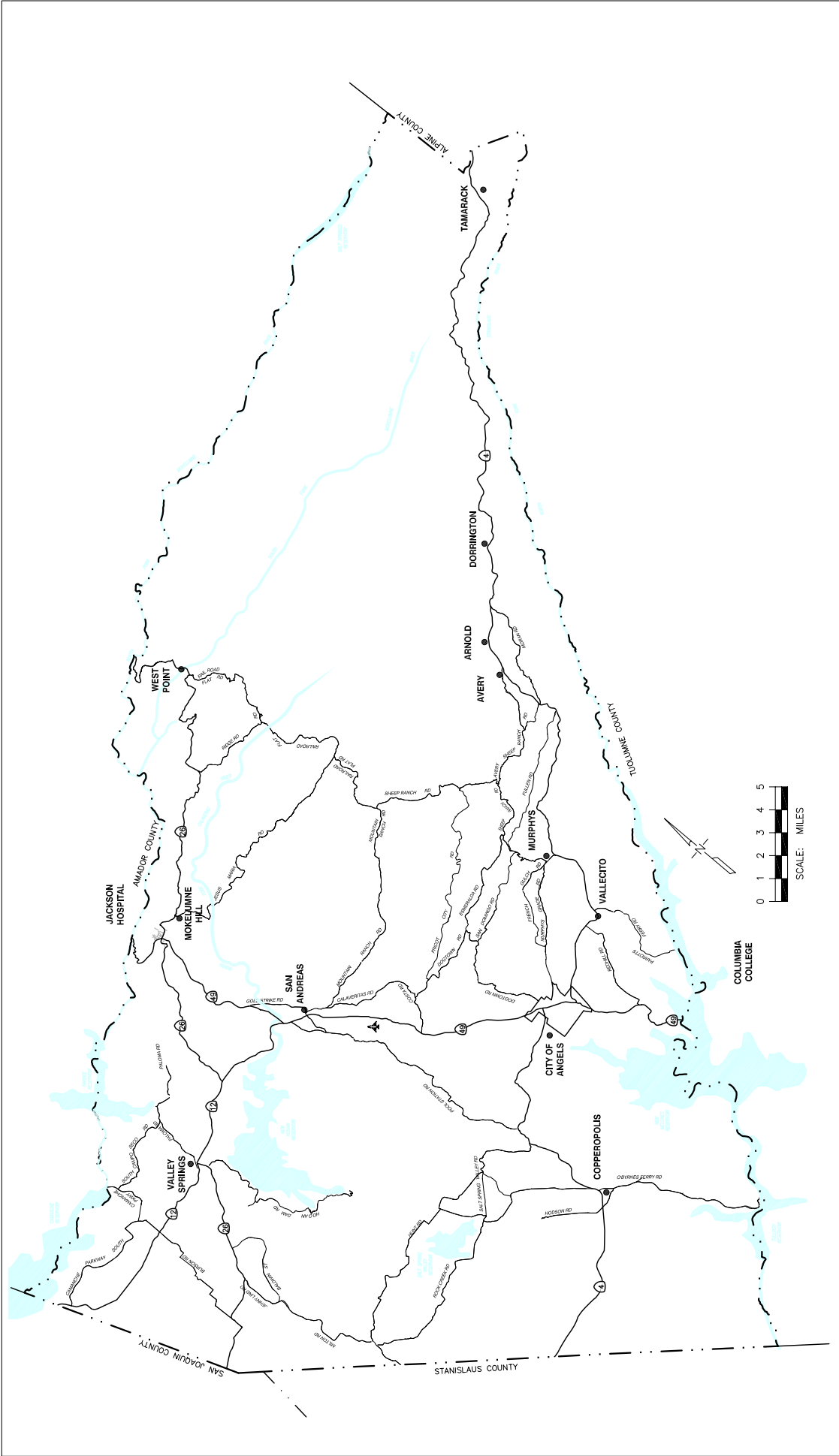
within the region;

- Predict the future needs for travel and good movement;
- Identify and document specific actions necessary to address the region's mobility and accessibility needs;
- Identify guidance and documentation of public policy decisions by local, regional, state and federal officials regarding transportation expenditures and financing;
- Identify needed transportation improvements, in sufficient detail, to serve as a foundation for the following actions:
 - Development of the Federal Transportation Improvement Program (FTIP), the Regional Transportation Improvement Program (RTIP) and the Interregional Transportation Improvement Program (ITIP);
 - Facilitate the National Environmental Protection Act (NEPA)/404 integration process decisions;
 - Identify project purpose and needs; and
 - Develop an estimate of emissions impacts for demonstrating conformity with the air quality standards identified in the State Implementation Plan (SIP).
 - Promote consistency between the California Transportation Plan, the regional transportation plan and other transportation plans developed by cities, counties, districts, private organizations, tribal governments, and state and federal agencies in responding to statewide and interregional transportation issues and needs;
 - Provide a forum for; (1) participation and cooperation and (2) to facilitate partnerships that reconcile transportation issues which transcend regional boundaries; and
 - Involve the public, federal, State and local agencies, as well as local elected officials, early in the transportation planning process so as to include them in discussions and decisions on the social, economic, air quality and environmental issues related to transportation.

Calaveras County has prepared this 2001 Regional Transportation Plan update based on these purpose statements and guidelines.

COORDINATION WITH OTHER PLANS AND STUDIES

During development of this 2001 RTP update, existing local and regional policy documents, and studies addressing transportation in Calaveras County were reviewed. In addition to the 1996 RTP, these documents included the *Calaveras County 1996 General Plan* (1996 General Plan), the *1998 Bicycle Master Plan* (1998 BMP), Calaveras County 1995 Traffic Model Update, 1999 CTC RTP Guidelines, the 1998 STIP, and the 2000 State Highway Operations & Protection Program (SHOPP). As a result of the new CTC 1999 RTP Guidelines, a significant effort was directed to ensure consistency between this RTP update, the 1996 General Plan, the RTIP, and the State's ITIP.



TRANSPORTATION/LAND USE INTEGRATION

The guiding principle in preparing this RTP update is to provide a better balance between transportation system planning for all modes and land use. This approach will result in lower cost for improvements and increased operational efficiency of the existing transportation system.

How is this accomplished? By ensuring the identified function, capacity and level of service of transportation facilities are consistent with applicable county land use and transportation policies. The following actions will help promote a viable connection and functionality between the transportation system and planned land uses.

Provide travel mode choice so that people have the option to travel independently on the mode that fits their need. These choices should not only involve the automobile, but also alternative modes such as transit, walking, biking, and telecommuting.

Support countywide multi-modal travel on major routes that connect major activity destinations. The transportation system should provide access from local areas to county activity centers in San Andreas and Angels Camp.

Promote pedestrian and bicycle accessibility to transit and major activity designations wherever feasible.

REPORT ORGANIZATION

This report is divided into seven sections as described below.

I. Introduction - provides background information regarding Calaveras County, along with descriptions of the purpose of the plan, the regional setting, plan assumptions, description of the existing transportation system, the relationship of the plan to other studies and plans, and the citizen participation program.

II. Assessment of Needs - identifies the existing and future deficiencies of the Calaveras County transportation system, by mode, that are of both regional and State significance. It also includes a description of the methodology used to develop future traffic projections and to analyze traffic operations under existing and future conditions.

III. Policy Element - contains the goals, objectives, and policies that address transportation issues by mode. In addition, local, regional and Statewide issues are discussed.

IV. Action Element - describes the State and regional transportation planning processes, as well as the process undertaken to evaluate various improvement options. The Action Element summarizes plan assumptions, past accomplishments, modal alternatives, and the purpose, need, and scope of recommended projects. Specific improvements are identified for short-range and long-range capital programs designed to meet the anticipated needs of the County's regional circulation system. Implementation cost estimates and responsible agencies are also identified.

V. Financial Element - lists the costs, revenues, and deficits/surpluses for each transportation mode. In

the cases where a funding deficit exists, a discussion of those improvements that are financially feasible is presented along with an assessment of the resulting impacts of the funding shortfall. Finally, potential funding sources are discussed. The Financial Element will show consistency with the four-year STIP fund estimate adopted by the CTC, the RTP goals, policies, and objectives, and with projects included in the ITIP and the RTIP.

VI. Environmental Review - describes the environmental review processes and procedures, and consultation process, followed by the assessment of the environmental impacts of this Plan.

VII. Appendices - Supplemental information is presented in the Appendices to this document including a list of reference documents, a glossary of terms, and other technical information.

CITIZEN PARTICIPATION

Public input is welcomed at monthly COG meetings regarding planning items on the agenda. Once a year the COG holds a public hearing for Unmet Transit Needs prior to making any changes in public transit service in the County. The COG also holds public hearings prior to the acceptance or adoption of any other planning documents or major policy decisions.

Calaveras County’s Social Services Transportation Advisory Council (SSTAC) represents public transit providers, transit dependent groups, and advises the Council directly regarding public transit coordination and Unmet Transit Needs. The COG provides technical assistance and staff support for the SSTAC.

COORDINATION WITH INDIAN TRIBAL GOVERNMENTS

The CTC Guidelines require the RTP process to meet the federal and state requirement to consult with and consider the interests of Indian Tribal Governments in the development of transportation plans and programs, including funding of transportation projects accessing tribal lands through state and local transportation programs.

The Indian Reservation Roads (IRR) Program Procedures and Guidelines, October 1999, defines procedures and provides guidelines to be used by the Federal Highway Administration (FHWA), Bureau of Indian Affairs (BIA), and Indian Tribal Governments for transportation planning activities. Consistent with these procedures and guidance, the Sheep Ranch Rancheria in Calaveras County was contacted to invite them to participate in the Calaveras County RTP planning process. Table 2 provides a summary of the contact information and transportation information provided by the Rancheria.

Table 2 Calaveras County Indian Tribal Governments			
Tribal Government	Contact Person	Location	Transportation Issues
Sheep Ranch Rancheria	Silvia Burley, Chairpoerson (209) 834-0197	1055 Winter Court Tracy, CA 95736	No issues identified prior to the public workshop.

Source: Fehr & Peers Associates, Inc. 2001

Two calls were made to Silvia Burley explaining the RTP process and schedule for the Calaveras RTP update. Ms. Burley explained that the Tribe is a “landless” tribe and, as such, does not have any transportation issues in Calaveras County at this time. There are however, 0.92 acres at Sheep Ranch in Calaveras County that are owned by as many as five individuals. It is not known if all are living. Ms. Burley was advised that an invitation to attend a public workshop concerning the RTP would be forthcoming as soon as it is scheduled. A summary of the planning and coordination requirements for federal and state agencies contained in the Indian Reservation Roads Guidelines for Planning are contained in Appendix G (Table G-1).

PUBLIC WORKSHOP SUMMARY

A public forum and workshop was held on June 26, 2001 at the Calaveras County Government Center. The purpose of the forum was to present an overview of the RTP planning process including technical information on transportation needs and proposed project solutions. Forum attendees were able to review maps, project lists and costs, and preliminary revenue forecasts from federal, state and local sources. No specific comments were received that would change the proposed maps or project lists.

In addition, the draft RTP was presented at a working session of the Calaveras Council of Governments Board on August 8th, 2001. The purpose of the session was to discuss project prioritization and to review RTP performance measures. Based on this initial review, a revised draft RTP was presented to the Board on September 12, 2001. The RTP was recommended for final adoption at the October 10th meeting of the Board.

II. ASSESSMENT OF NEEDS

The needs assessment identifies the existing and future deficiencies of the Calaveras County transportation system that are of both regional and State significance. The information presented in this section provides the basis for improvements proposed in the Action Element (Chapter IV).

EXISTING NEEDS

The discussion of existing needs begins with a description of existing socioeconomic conditions, existing travel characteristics, and the status of transportation system maintenance. This information provides a context for the subsequent descriptions of the existing transportation system by mode.

SOCIOECONOMIC CONDITIONS

Existing transportation needs stem from travel demand, which is influenced by population, location and type of employment), and intensity of land-use in Calaveras County. Sources reviewed for this RTP update included the following:

- 1990 Census,
- 2000 Census,
- Calaveras County Profile from the Department of Finance (DOF) dated February 2000,
- 1996 Calaveras County RTP,
- Calaveras County 1996 General Plan, and
- Data provided by the Calaveras County Planning and Public Works Departments.

Calaveras County experienced relatively high population growth rates (i.e., in excess of four percent) during the 1980s due to net in-migration from the San Francisco Bay area and Central Valley of California. However, the growth in population slowed to approximately two percent per year since that time. Table 3 shows the historical population growth trend from 1980-2000.

Year	Population	Average Annual Percent Change
1980	20,710	-
1990	31,998	4.4%
1995	36,907	2.9%
2000	40,950	2.1%

Source: State of California, Department of Finance, E-1 City/County Population Estimates, with Annual Percent Change, Sacramento, California, May 2001.

The following information summarizes other key socioeconomic data obtained from the 1990 census and the February 2000 DOF County Economic profile:

- The civilian labor force in 2000 was 15,190.
- The per-capita income in Calaveras County in 1998 was \$20,172. This compares to a statewide average of \$28,173 for the same year.
- The 2000 unemployment rate in Calaveras County was 6.7 percent. The statewide average for 2000 was 4.9 percent.
- Eighteen percent of the County's population in 2000 was 65 years or older compared to a state average of 12 percent.
- The average number of persons per household in 2000 was 2.5.

TRAVEL CONDITIONS AND CHARACTERISTICS

Key travel characteristics of Calaveras County related to commute and recreational travel are summarized below. The two components of overall travel in the County are generally responsible for most of the existing improvement needs.

The 1990 Census provided a variety of information on area travel characteristics for work trips. The following summarizes a number of the key conclusions drawn from the data:

- Single-occupant vehicle trips represent 76 percent of all work trips,
- Approximately 90 percent of Calaveras County workers travel to work by automobile,
- Only 0.2 percent of all work trips are made using public transit. The statewide average is four percent,
- Walking accounts for approximately three percent of work trips which matches the statewide average,
- Six percent of the labor force in Calaveras County work-at-home or telecommute. This is double the statewide average of three percent, and
- The County has approximately 870 miles of streets and roads.

The other major component of travel in Calaveras County continues to be recreational traffic. With the many recreational attractions in and around the County, traffic volumes are often highest during weekends and holidays. The *Valley-to-Foothill Intermodal Sub area Study*, prepared by Fehr & Peers Associates in 1995, attributed high traffic volumes and levels of congestion at key locations to recreational traffic both within and through the County. The *Four County Recreational Transit Demand and Feasibility Study* (J. Kaplan Associates, 1991) reported that over a third of total daily traffic is made up of recreational visitors and tourists on busy weekends and during summer months. This increased level of traffic places higher maintenance demand on the existing transportation infrastructure.

TRANSPORTATION SYSTEM MAINTENANCE

In past years, the County has suffered from a backlog of “deferred maintenance” on many County roadways. The 1998 estimates from a County and City survey of pavement rehabilitation completed for Caltrans showed a backlog of approximately \$38 million in deferred maintenance for the County, and \$1.5 million for the City of Angels. It should be noted that adjacent counties face similar problems with “deferred maintenance” and it is important that efforts to improve maintenance on interregional roadway segments, particularly those that serve as primary truck routes, be coordinated between affected counties.

ROADWAY SYSTEM

Figure 2 displays the major roadways in Calaveras County along with their functional classification. All state routes in Calaveras County are classified as Minor Arterials. Minor arterials constitute routes whose design is expected to provide for relatively high overall travel speeds, with minimum interference to through movement. In Calaveras County, the minor arterial system consists of State Routes 4, 12, 26, and 49. State Routes 4, 12, and 49 are included as routes on the Interregional Rural Road System (IRRS). Other roads of regional significance in Calaveras County are classified as Major or Minor Collectors.

MAJOR COLLECTORS

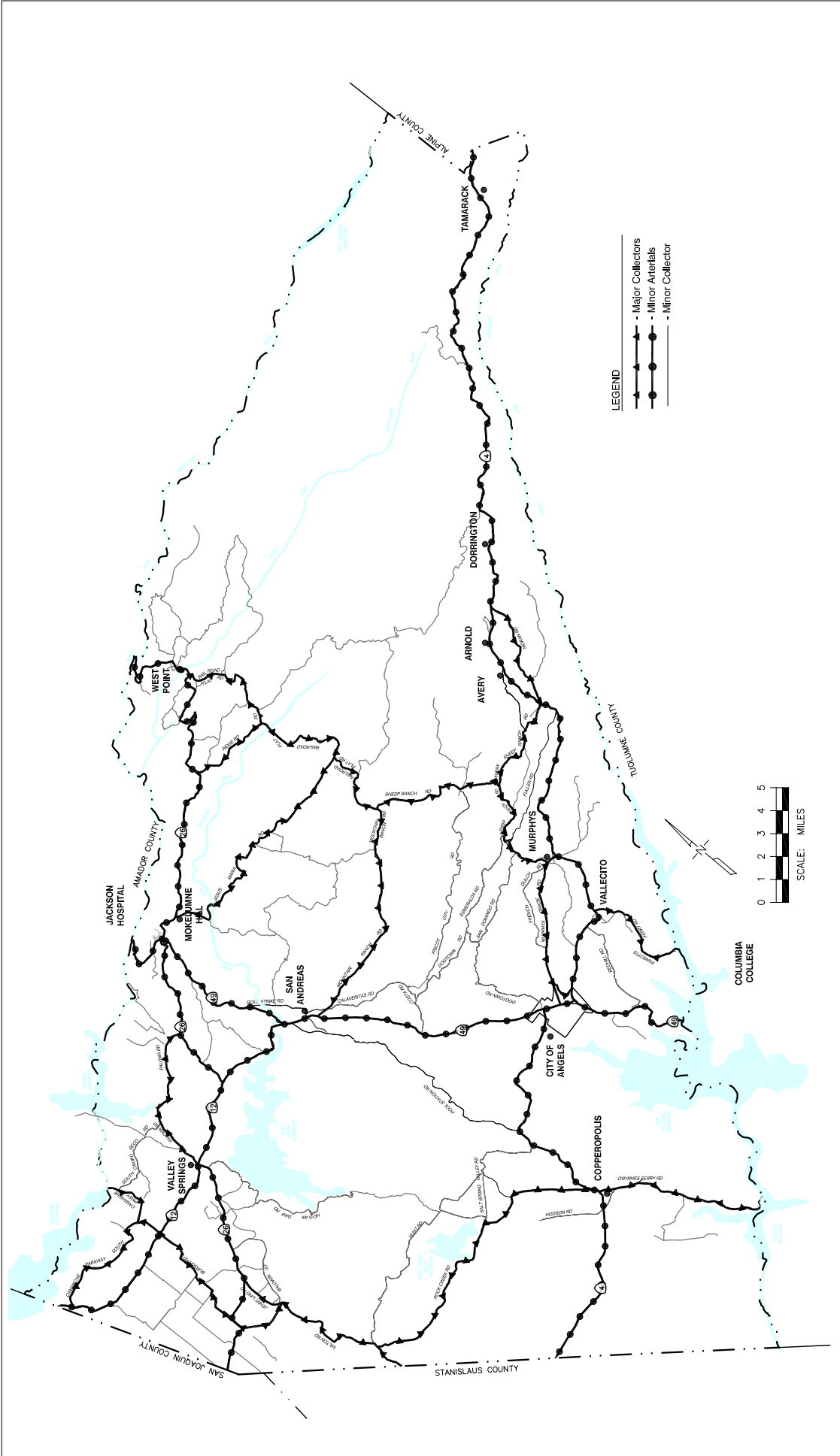
Major collectors provide service to larger towns not directly served by the arterial system, and to other traffic generators of equivalent intra-county importance, such as consolidated schools, shipping points, County parks, and important mining and agricultural areas. Additionally, they link these activity centers with nearby larger towns or cities and/or with routes of higher classification.

MINOR COLLECTORS

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.

LOCAL ROADS

The rural local road system serves primarily to provide access to adjacent land, and provides travel over relatively short distances as compared to arterials and collectors. Local roads constitute the remaining roadway mileage not classified as principal arterial, minor arterial, or collector roadways.



EXISTING ROADWAYS AND FUNCTIONAL CLASSIFICATION
 FIGURE 2

ROADWAY OPERATIONS – AVERAGE DAILY CONDITIONS

Figure 3 displays the existing (year 2000) average daily traffic volumes for the major roadways within the study area including the average daily traffic of the peak month on the state highways. Counts on state highways were obtained from Caltrans and counts for the local road system were provided by the Calaveras County Public Works Department.

The quality of traffic operations is expressed in terms of level of service (LOS) ranging from LOS A (best) to LOS F (worst). Level of service on a two-lane roadway is based primarily on the amount of time motorists are delayed and travel speeds are less than their desired speed. An indicator of this delay is the “capacity utilization” or the ratio of the traffic volume on a road segment to its functional capacity (i.e., volume-to-capacity ratio). The capacity of a road segment is influenced by many factors including lane width, shoulder width, grade line, proportion of trucks, directional split, peaking characteristics, and the ability to pass another vehicle. Table 4 below provides a qualitative description of each LOS category for two-lane highways.

Table 4	
Level of Service Description	
Level of Service	Description
A	Represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream.
B	Stable flow, but the presence of others in the traffic stream begins to be noticeable.
C	Stable flow, but marks the beginning of the range of flow in which the operation of individual users become affected by interaction with others in the traffic stream.
D	Represents high density, but stable flow.
E	Represents operating conditions at or near the capacity of a roadway
F	Represents forced or breakdown flow.
Source: Fehr & Peers Associates, Inc., 2001	

The existing physical characteristics of each state highway segment (refer to Table A-1 of Appendix A) were used to determine the capacity of the study roadway segments based on methods described in the *Highway Capacity Manual* and Transportation Research Record 1194, (Transportation Research Board, *Traffic Flow Theory and Highway Capacity, 1994*). These capacities are summarized by segment in Table B-1 of Appendix B.

Traffic volumes were compared to capacity thresholds developed for each roadway segment to determine the existing LOS. Caltrans maintains a LOS C goal for State highways designated in the Interregional Road System (IRRS) and LOS D for non-IRRS routes in rural areas. Caltrans, in conjunction with County dictates, may consider LOS D acceptable for some IRRS routes in rural areas due to physical constraints, lack of passing opportunities, and the limited number of alternative travel routes. In Calaveras County, these routes include SR 4 (east of O'Byrnes Ferry Road) and SR 49 (north of San Andreas and south of the City of Angels). LOS D is the goal for all routes in urban/developed areas such as Valley Springs, San Andreas and the City of Angels (Angels Camp).

Figure 4 shows the existing LOS for State and County roadways. As shown, most of the deficiencies (LOS D or worse) occur on the State routes within the developed areas of the County. Table 5 summarizes these locations.

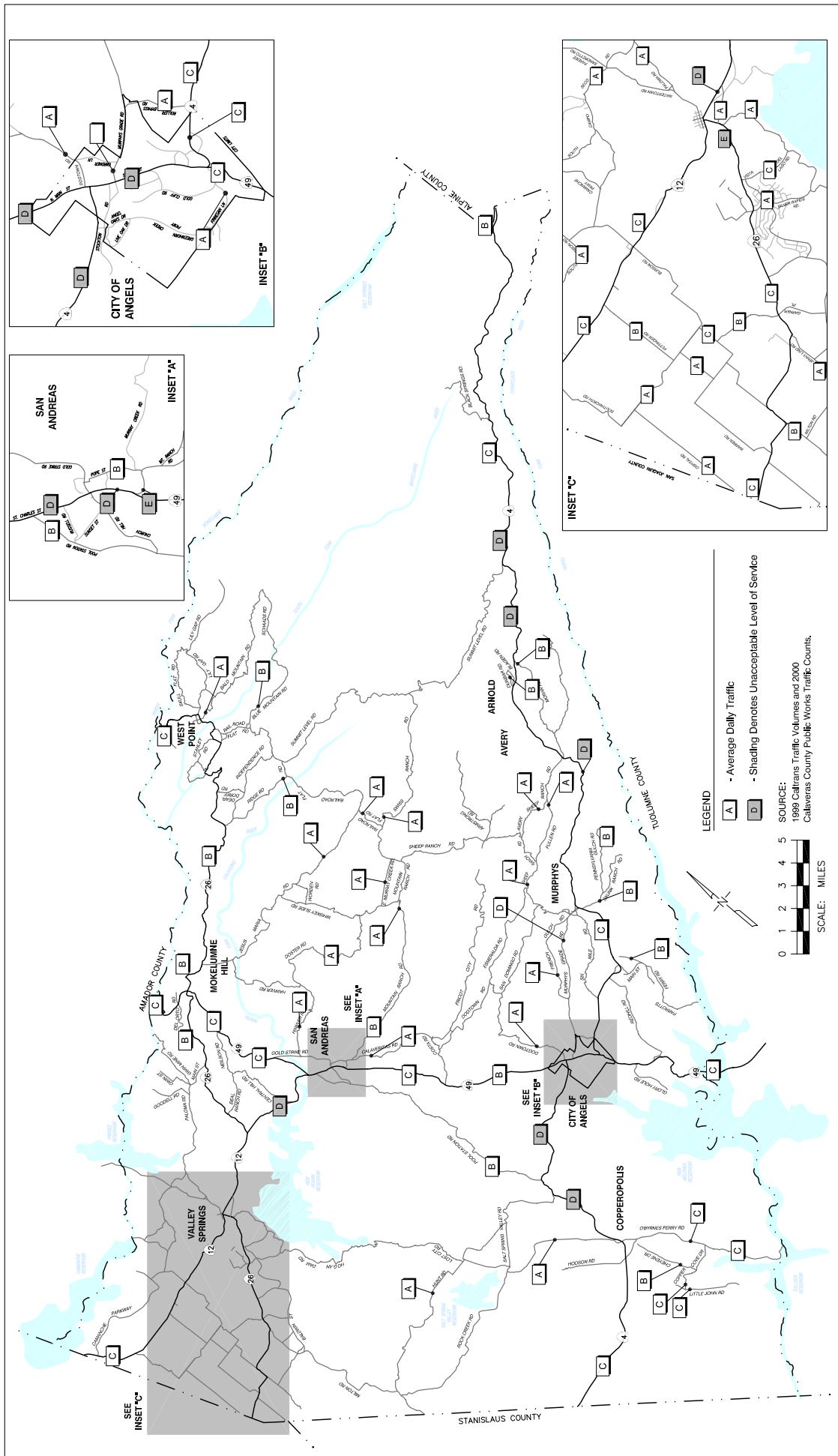
Route – Segment	Avg. Daily LOS / Peak Month LOS	Urban/Developed Area Impact
SR 26 – East of Silver Rapids Road	D/E	Valley Springs
SR 4 – East of O'Byrnes Ferry Rd. to SR 49	D/D	City of Angels
SR 4 – East of Murphys	D/D	Murphys
SR 4 – East of Arnold	D/E	Arnold/Dorington
SR 12 – South of Comanche Parkway	C/D	Valley Springs
SR 12 – West of Pettinger Road	C/D	Valley Springs
SR 49 – Court Street to Mountain Ranch Rd.	D/D	San Andreas
SR 49 – SR 4 north to SR 4 south	D/D	City of Angels
Murphys Grade Road	D	City of Angels/Murphys

Source: Fehr & Peers Associates, 2001

Existing deficiencies on SR 4, 12 and 26 are due to limited roadway capacity caused by restricted passing areas, narrow lanes and shoulders, and not-standard vertical and horizontal road alignments. SR 49 experiences congested operations in the communities of San Andreas and the City of Angels due to the number of driveways and collector roads that provide access to the facility, as well as the volume of recreational and through traffic in the area. The County should explore preparation of an “Access Management Plan” with Caltrans that addresses the SR 49 corridor through San Andreas and the City of Angels. Limiting direct access to SR 49 may help alleviate some of the congestion in the more populated areas. Murphys Grade Road is the one County road of regional significance experiencing LOS D because residents and visitors both use it to avoid the traffic congestion in the City of Angels and the SR 49/SR 4 intersection.

GOODS MOVEMENT

With no existing rail freight service within the County, trucks continue to handle almost all of the freight entering and exiting Calaveras County. According to Caltrans 1998 vehicle classification counts, the percentage of trucks in the traffic stream on State routes within the County range from three to eight percent, with the highest percentage (8.3 percent) occurring on SR 4 between Arnold and the Calaveras Big Trees state park area. Specific truck volumes for each highway segment in the County are shown in Table 6.



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EXISTING LEVELS OF SERVICE
FIGURE 4

Table 6 Truck Volumes on State Highways in Calaveras County			
Route	Limits	Average Daily Truck Volume	Truck Percentage of Total Traffic
SR 4	Stanislaus Co. Line to O'Byrnes Ferry Road	167	4.5%
SR 4	O'Byrnes Ferry Road to W. Br. Cherokee Creek	126	4.0%
SR 4	W. Br. Cherokee Creek to W. Jct. Rte. 49	120	3.8%
SR 4	W. Jct. Rte 49. To E. Jct. Rte. 49	220	4.0%
SR 4	E. Jct. Rte. 49 to Murphys	436	6.5%
SR 4	Murphys to Avery	515	6.6%
SR 4	Avery to Arnold	286	5.2%
SR 4	Arnold to Calaveras Big Trees	315	8.3%
SR 4	Calaveras Big Trees to Alpine Co. Line	89	4.7%
SR 12	San Joaquin Co. Line to W. Jct. Rte. 26	391	6.3%
SR 12	W. Jct. Rte. 26 to E. Jct. Rte. 26	439	6.1%
SR 12	E. Jct. Rte. 26 to Jct. Rte. 49	429	6.6%
SR 26	San Joaquin Co. Line to W. Jct. Rte. 12	416	5.4%
SR 26	W. Jct. Rte. 12 to E. Jct. Rte. 12	60	5.0%
SR 26	E. Jct. Rte. 12 to Jct. Rte. 49	101	4.6%
SR 26	Jct. Rte. 49 to Amador Co. Line	128	6.1%
SR 49	Tuolumne Co. Line to S. Jct. Rte. 4	445	5.0%
SR 49	S. Jct. Rte. 4 to N. Jct. Rte. 4	528	4.4%
SR 49	N. Jct. Rte. 4 to W. Jct. Rte. 12	640	6.1%
SR 49	W. Jct. Rte. 12 to Jct. Rte. 26/Mokelumne Hill	309	7.2%
SR 49	Jct. Rte. 26 to Amador Co. Line	374	6.8%
Source: 1998 Annual Average Daily Truck Traffic on the State Highway System (Caltrans, 1998)			

As growth in Calaveras County continues to increase, the level of truck traffic is anticipated to increase on routes through the more developed areas. Large trucks on regional and local roads add to traffic congestion and increased road maintenance costs. There continues to be a need to establish and/or designate specific truck routes throughout the County to help direct truck traffic to the most appropriate roadways, and to help manage the ongoing highway maintenance costs.

PUBLIC TRANSIT

Calaveras Transit initiated service on October 13, 1999 under a contract between Laidlaw Transit Services, Inc. and the County. The current system provides a combination of primarily fixed route, along with deviated service (upon request) to within ¾ mile either side of the fixed route.

FIXED ROUTE SERVICE

The system provides public bus service on weekdays (M-F) to Calaveras County communities and major trip generators in San Andreas and Angels Camp. In addition, Calaveras Transit serves border destinations in neighboring counties including, Columbia College in Tuolumne County, Gold Country Center (Raley’s), and Jackson Amador-Sutter Hospital in Amador County. Passengers may transfer to the Tuolumne and Amador transit systems at these locations. All buses are fully ADA accessible and most are equipped with bike racks to accommodate up to two bicycles. Despite expanded service coverage, frequency of service remains limited. Most outlying communities are served by only three round trips per day. Figure 5 shows the existing transit routes and facilities serving the County.

DIAL-A-RIDE AND SENIOR NUTRITION SERVICE

In addition to fixed-route service, dial-a-ride service is provided two days a week in San Andreas and Angels Camp. The service is open to the general public, but seniors and the disabled are given priority for reservations. Senior Nutrition-service provides scheduled rides from Valley Springs and Angels Camp to the San Andreas Senior Center’s and the A.C. Nutrition Center in Angels Camp.

FARE STRUCTURE

The current fare structure for Calaveras Transit is shown in Table 7.

Table 7 Current Fare Structure for Calaveras Transit (effective May 2000)		
Cash Fares	Monthly Pass	Tickets
Regular - \$1.00	Regular - \$36.00	15 Regular Tickets - \$12.50
Discounted ¹ - \$0.75	Discounted - \$28.00	15 Discounted Tickets - \$10.00
Senior Nutrition - \$0.50	Not Applicable	Not Applicable
Midday Dial-a-Ride - \$1.50	Not Applicable	Not Applicable

Notes: ¹ Discounted fares, tickets and passes are for senior citizens (55+), youth (6-18) and persons with disabilities
 Source: Calaveras Transit

PERFORMANCE INDICATORS

Recent data indicates that Calaveras Transit's ridership has grown significantly since start-up in November 1999. Data from 1999 showed monthly ridership to be about 960 passengers per month (November and December). Monthly passenger boardings in June 2000 were almost 1,800 - an 88 percent increase. For calendar year 2000, monthly ridership has averaged 1,848 persons. This is a favorable trend considering that the previous Calaveras Stagecoach system showed decreases in ridership between FY 1993-94 and FY 1992-93.

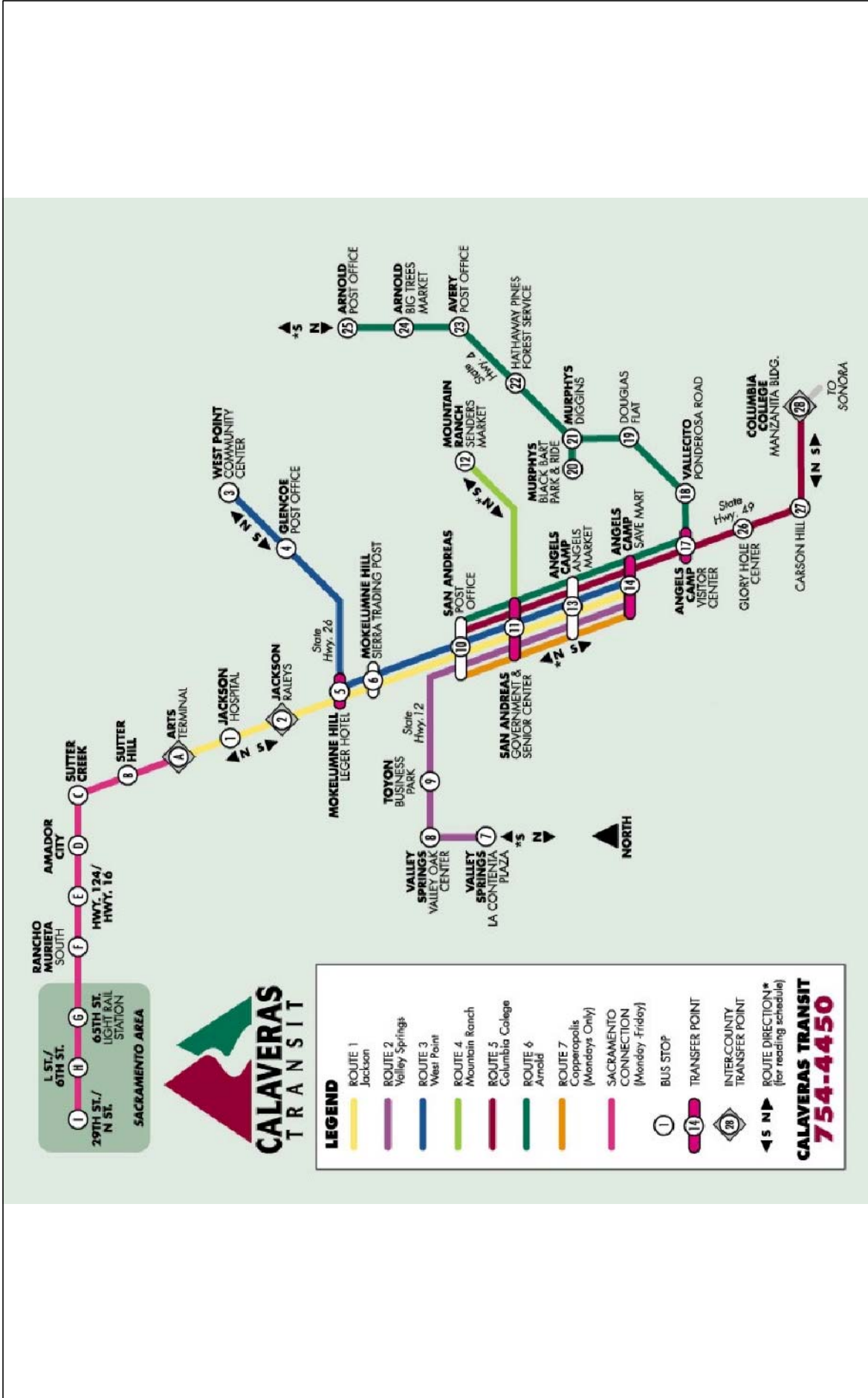


Table 8 presents system data and performance indicators for Calaveras transit for its first full year of operation (January – December 2000). No prior comparable data is available.

Table 8 Calaveras Transit Performance Measures	
Performance Indicator	Calaveras Transit YTD (January – December 2000)
Total System Ridership	22,182
Total Vehicle Service Hours	9,451
Total Vehicle Service Miles	298,890
Passengers per Service Hour	2.35
Passengers per Service Mile	0.07
Total Cost	\$390,533
Cost per Service Hour	\$41.32
Cost per Service Mile	\$1.22
Total Fare box Revenue	\$26,033
Average Fare box Recovery Ratio	6.67%
Cost per passenger	\$16.43
Source: Calaveras Transit Annual Report prepared by Laidlaw Transit Services, Inc.	

The Calaveras Transit Marketing Plan (June 2000) identifies the critical short-term issue for Calaveras Transit to be the limited level of service relative to the dispersed population that it serves. However, the social benefits of this service are strong, particularly in light of the aging population in the County.

UNMET NEEDS PROCESS

The unmet needs process is an integral part of transit planning process in Calaveras County. State law under the Transportation Development Act (TDA) requires this process. Unmet transit needs usually fall into one of two categories:

- Transit service levels or gaps identified in the RTP that have not been implemented or addressed; or
- Transit needs identified through a public hearing process that has been delivered in writing or in public testimony.

The TDA statutes specify that the Calaveras COG may not use Local Transportation Funds (LTF) for streets and roads purposes until all unmet transit needs that are reasonable to meet have been addressed.

The COG held an “Unmet Needs Hearing” on February 9, 2000 to take public testimony concerning the operation of Calaveras Transit. Five recommendations were offered as part of the testimony at the hearing.

1. Expand Dial-A-Ride in Valley Springs and provide service to Rancho Calaveras;
2. Expand Dial-A-Ride service to Burson;
3. Expand Dial-A-Ride to Murphys Diggins;
4. Expand public outreach and education; and
5. Provide connecting service to Stockton.

These requests were evaluated relative to the Unmet Needs criteria. Items 1-3 were identified as unmet needs that are not reasonable to meet at this time. Item 4 did not qualify as an unmet transit need. Item 5 is not considered reasonable to meet at this time.

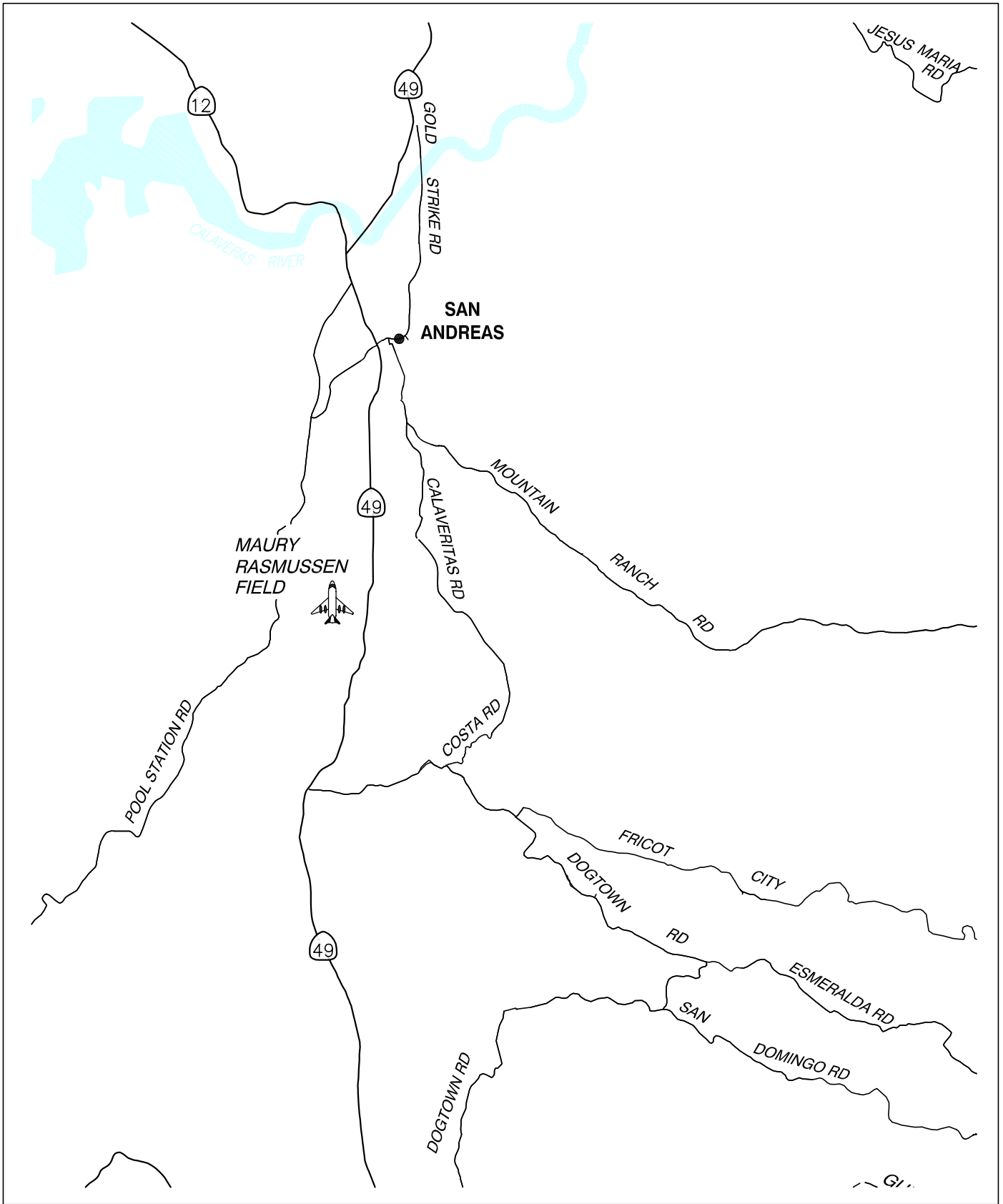
AVIATION FACILITIES

Calaveras County Airport (Maury Rasmussen Field) is the only general aviation facility available to the public. As shown in Figure 6, the airport is located approximately four miles south of San Andreas and five miles north of the City of Angels west of State Route 49. The nearest public airports are located near Jackson in Amador County (19 miles to the north) and in Columbia in Tuolumne County (15 miles to the south). Rasmussen Field is situated at an elevation of approximately 1,300 feet, and has a 3,600-foot long and 60-foot wide asphalt runway classified as a Basic Utility Stage II runway. A full-length taxiway is located east of the main runway. This facility can accommodate all single-engine and smaller twin-engine aircraft, in addition to lighter, 'business-jet' aircraft. Two helipads are also available for use at the airport.

The airport serves commuters, business travelers, and recreational pilots, in addition to providing facilities for flight training, charter service, and aircraft restoration and repair. Approximately 66 aircraft are based at the airport. According to the 1996 General Plan, the airport is designed to accommodate 200 aircraft with the ultimate tie-down and hangar facilities in place. Annual aircraft operations at the airport are estimated to be around 20,000 take-offs and landings. The current need is to maintain the existing facilities in a safe and operable condition to accommodate any future growth that may occur. The current capacity is deemed adequate to serve the current demand.

BIKEWAY, PEDESTRIAN AND EQUESTRIAN FACILITIES

In 1998, the Calaveras County Bikeway Plan was updated to provide a blueprint for developing a bikeway system that includes on-street facilities, off-street facilities, and support facilities and programs in the County. The 1998 Bikeway Plan identified the following needs.



ROADWAY FACILITIES

An increase in bicycle interest and activity in Calaveras County, coupled with a lack of designated facilities, has placed a higher burden on the County roadway system to accommodate existing on-street bicycle travel. Bicyclists are forced to share existing roadways, which is not desirable given that many roadways are narrow and do not have adequate shoulders. In many cases, there is not enough roadway width on two-lane roads to allow vehicles to safely pass a slower moving bicycle.

MULTI-MODAL CONNECTIONS

Multi-modal connections in Calaveras County are especially important due to barriers for continuous bicycle travel such as topography or lack of existing continuous bikeway facilities. Calaveras Transit does accommodate up to two bikes on buses via bike racks on each vehicle. Bicycle parking facilities do not currently exist at key bus stops along system routes. The limited bicycle access to transit and lack of secure parking facilities at transit stops deters the attractiveness of bicycling as an alternative mode of transportation within the County. In addition, multi-modal transfer points typically include park-and-ride facilities. Within the County, there is one Caltrans-operated park-and-ride lot in Murphys on Algiers Street. However, this location does not provide bike lockers or secure bicycle parking.

SUPPORT FACILITIES

Bikeway support facilities include physical infrastructure designated to accommodate or promote the use of bicycles such as bicycle racks, bicycle lockers, restrooms, and shower facilities. A windshield survey of major shopping centers, schools, parks and employment centers found bike racks located in some locations, but no evidence of other support facilities such as lockers, restrooms, or shower facilities. In many cities and counties, the installation of secure bicycle parking is required as part of local transportation management plans or the zoning code to encourage the use of bicycles as an alternative to automobile use. Policies to address this need are identified in Chapter III – Goals, Objectives and Policies.

PEDESTRIAN FACILITIES

A primary deficiency for pedestrian circulation is the lack of safe crossings for high-volume, very wide, or sight-restricted roadways, particularly state routes. Within Calaveras County, the wide travel lanes coupled with the two-way left-turn lane on SR 49 through portions of San Andreas leaves pedestrians exposed to vehicles for a substantial length of time. Crossing of these facilities by elderly or disabled persons is even more difficult.

Although walking represents only a small portion of all person trips in the County, pedestrian travel is a key element of the transportation system and intermodal activity. Pedestrian issues were not addressed in the 1998 Bikeway Master Plan, except as they related to bikeway design standards for shared-use facilities. The issues of pedestrian access and connectivity to the transportation system are important links to a balanced multi-modal system. Many developed areas in the County lack sidewalks or safe pedestrian walkways.

EQUESTRIAN TRAVEL

Many residents and visitors to Calaveras County enjoy equestrian recreation opportunities. Given the predominant rural character of the County, and the fact that most equestrian travel occurs on private lands, horseback riding on public roads is limited and usually confined to low-volume facilities.

RAILROAD FACILITIES

Union Pacific abandoned the branch railroad line of the Pacific Transportation Company, which extended from Lodi to the Calaveras Cement Plant, known as Kentucky House, near San Andreas in 1999. This action was the result of a lack of use (no activity since the cement plant closure in 1984) and the fact there is no passenger service within the County. The future of any railroad operation in Calaveras County, including commuter rail service, is currently unknown. If rail service is resumed, activity in the near-term is likely to include only freight transportation.

MANAGING THE TRANSPORTATION SYSTEM

Programs that allow the County to better use the existing transportation system benefit all uses of it. System management strategies are divided into two categories - transportation system management (TSM) and transportation demand management (TDM). Each category emphasizes different strategies and approaches.

TSM refers to techniques for maximizing utilization of existing circulation facilities without having to construct expensive new facilities. Examples of TSM include signal timing, access management, transit priority treatments, high occupancy vehicle (HOV)/commuter lanes, and other operational-oriented strategies to improve traffic flow. In contrast, TDM strategies manage the flow of traffic on and extend the life cycle of existing facilities by reducing and reshaping the demand for use of these facilities. Most TDM strategies are designed to influence travel choices by providing alternatives to driving alone. Examples of TDM include the coordinated use of public and social service transportation, ridesharing (carpool/vanpools), telecommuting, bicycling, the use of flexible (staggered) work hours, variable work schedules by large employers, and the management of parking demand.

The County does not have specific TSM or TDM programs. However, the Valley to Foothill Study recommended that Calaveras County consider implementing a hierarchy of projects that could increase roadway capacity by decreasing the number of single-occupant auto trips. The two key recommendations were the development of park-and-ride lots and the expansion of the existing ridesharing program run by San Joaquin County. In addition, the COG commissioned a transportation demand management (TDM) feasibility study that was conducted by Nelson/Nygaard Consulting Associates in 1998. The results of a commuter survey of 441 people for that study provided the following information:

- 95 percent were Calaveras County residents;
- 5 percent work in Calaveras County, but live elsewhere;
- 55 percent commute to destinations within the County;
- 45 percent commute to destinations outside the County;

- 95 percent of commute trips are for work;
- 90 percent drive alone; and
- Over half of those surveyed that are not carpooling indicated an interest in carpooling or vanpooling.

The Valley to Foothill Study recommendations and this information suggest that specific TSM and TDM actions are needed in the County.

AIR QUALITY

Under State Law, local and regional air pollution control districts have the primary responsibility for controlling air pollutant emissions from all sources other than vehicular emissions. Control of vehicular air pollution is the responsibility of the California Air Resources Board (CARB). In California, both State and Federal standards apply. The following three primary pollutants are prevalent within the County:

- *Ozone (O₃)* – smog formed through a chemical reaction of volatile organic compounds, nitrogen oxides and sunlight;
- *Carbon Monoxide (CO)* – a colorless, odorless gas that is considered toxic because of its tendency to reduce the carrying capacity of oxygen in the blood; and,
- *Suspended Particulate Matter less than 10 microns (PM₁₀)* – solid or liquid matter that can penetrate into the lungs and affect sensitive population groups such as children, the elderly, and people with respiratory diseases.

Under State standards, the County has been moderate non-attainment for Ozone, while the status of CO and PM₁₀ has been unclassified. The CARB has found the Ozone problem has been primarily due to through traffic from the Central Valley. As such, the County has not been subject to air quality conformity and trip reduction measures. However, under the Environmental Protection Agency's (EPA) new 8-hour ozone standard, the County has been put on alert that a more stringent non-attainment status designation may be pending in 2001. If and when this occurs, the County will be subject to air quality conformity analysis, and identification of measures to reduce Ozone levels to meet the new Federal standard.

FUTURE NEEDS

The analysis of future transportation needs in Calaveras County was based on projected increases in travel demand and the ability of existing facilities to accommodate the demand at acceptable levels.

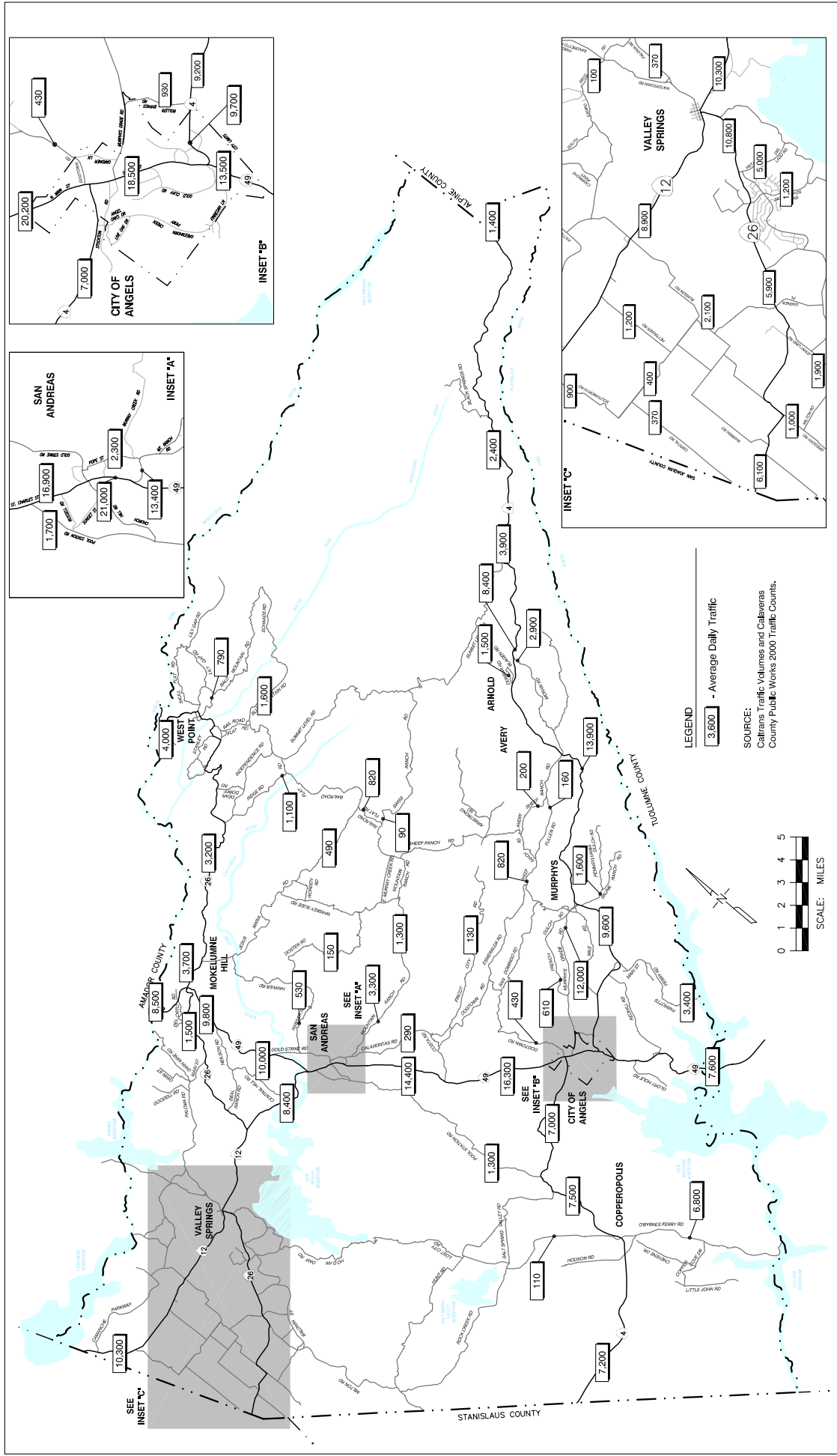
POPULATION AND HOUSEHOLD ESTIMATES

For this 2001 RTP update, future conditions were analyzed for a 22-year planning horizon (2000 - 2022) to determine the roadway system required to support the General Plan Land Use Element and County Planning staff's projections for future growth. The year 2022 will help ensure that the adopted RTP reflects a minimum 20-year time frame for project implementation consistent with the 1999 CTC RTP Guidelines. The Calaveras County General Plan land use assumptions and population estimates were modeled as part of the recent Road Improvement and Mitigation Program (RIM 1998) study. Based on these inputs, the County is expected to grow by a total of 23,220 persons between 2000 and 2022. This results in an average annual growth rate of approximately two percent per year from 40,950 in 2000 to 63,770 in 2022. During this same time, total households are estimated to increase by a little over 13,000 units from 22,940 to 36,370.

The State DOF Population projections summarized from the DOF's *Population Projections by Race/Ethnicity for California and Its Counties 1990 - 2040* (Sacramento, CA 1998) support the RIM study estimates. According to the DOF, the County's population is expected to increase to 64,400 in 2022. This translates into an average of two percent annual growth over twenty years as well. Increases in population and household density (and inevitably the location and type of employment) directly result in increased demand on all modes of the transportation system. Impacts to each of these modes and associated issues are discussed below.

ROADWAY SYSTEM

To determine future roadway facility needs, traffic projections were developed using the County Travel Demand model. Figure 7 displays the average daily traffic forecasts for area roadways in 2022. As expected, volumes are projected to be substantially higher than existing volumes on all roads, particularly those in the State highway system. The increase in growth in Calaveras County will result in substantial increases in traffic on SR 49 in the vicinity of Angels Camp and San Andreas, SR 4 near Murphys and Arnold, SR 12 from the San Joaquin County line through Valley Springs to San Andreas, and SR 26 near Mokelumne Hill and West Point. The existing trend of combining through traffic with local traffic generated by new development is expected to continue to worsen in the developing portions of the County such as Copperopolis, Valley Springs, Angels Camp, and San Andreas.



2022 DAILY TRAFFIC VOLUMES
 FIGURE 7

OPERATIONS ANALYSIS

The traffic volumes shown on Figure 7 were compared to the level of service thresholds previously described to determine the LOS in 2022, assuming no improvements will be made to the roadway system. Figure 8 illustrates the projected level of service for each study roadway segment and Table 9 summarizes the deficient roadways in comparison to existing conditions.

Roadway Segment	Avg. Daily LOS	
	Existing	2022
SR 4 - Stanislaus County Line to West of O'Byrnes Ferry Rd	C	D
SR 4 - East of O'Byrnes Ferry Rd to West of SR 49	D	E
SR 4 - East of SR 49 (City of Angels) to Murphys	C	D
SR 4 - Murphys to Arnold	D/D	E
SR 4 - East of Arnold	D/E	E
SR 12 - San Joaquin County Line to SR 26 West (Valley Springs)	C/D	D
SR 12 - SR 26 West Jct. (Valley Springs) to SR 26 East Jct.	C	D
SR 12 - SR 26 East Jct. to SR 49 (San Andreas)	D	D
SR 26 - San Joaquin County Line to Rancho Calaveras	C/C	D
SR 26 - Rancho Calaveras to SR 12 West Jct. (Valley Springs)	C/C	E
SR 26 - East of SR 49 – Near Mokelumne Hill and West Point	C/C	D
SR 49 - Tuolumne County Line to SR 4 South Jct. (City of Angels)	C	D
SR 49 - South Jct. to SR 4 North Jct. (City of Angels)	D	E
SR 49 - North Jct. (City of Angels) to Mountain Ranch Rd	C	E
SR 49 - Mountain Ranch Rd. to Court Street (San Andreas)	C	D
SR 49 - SR 12 Jct. (San Andreas) to SR 26 Jct. (Mokelumne Hill)	C	D
SR 49 - SR 26 Jct. (Mokelumne Hill) to Amador County Line	C	D
Murphys Grade Rd - SR 49 (City of Angels) to SR 4	E	F
O'Byrnes Ferry Rd - SR 4 to Tuolumne County Line	C	D

Source: Fehr & Peers Associates, 2001

The LOS results indicate that, without any improvements to the roadways, the State highway system will continue to experience the majority of the traffic congestion within the County. Almost the entire network of State highways, with the exception of portions of SR 26 and SR 4 near Black Springs and the Alpine County Line, is projected to operate at LOS D or worse based on average daily traffic volumes.

OTHER SYSTEM PERFORMANCE MEASURES

Other measures to determine the impact of projected travel demand on the existing roadway network are Vehicle Miles of Travel (VMT) and Vehicle Hours of Delay (VHD), both output by the Calaveras traffic model. Table 10 summarizes the results with and without, the SR 49 North Angels Bypass. As Table 10 shows, without the bypass or any traffic improvements, VMT and VHD increase significantly by 2022. The Calaveras travel demand model was used to forecast the effects of building the bypass, but with no other improvements in place. As Table 10 shows, VMT tends to increase even more as more trips are attracted to the new facility. However, VHD actually decreases, indicating a positive effect on congestion in the City of Angels. Travel forecasts from the model show approximately 5,600 daily trips are diverted from through traffic on SR 49 onto the bypass.

Planning Scenario	Total Vehicle Trips	Regional VMT/Day	Regional VHD/Day
Existing Conditions (2000)	100,300	1,422,100	590
Future Conditions (2022) without improvements	158,100	2,490,200	1,720
Difference	57,800	1,068,100	1,130
Future Conditions (2022) with SR 49 North Angels Bypass	158,100	2,495,000	1,650
Difference	57,800	1,072,900	1,060

Source: Fehr & Peers Associates, 2001.

TRAFFIC SAFETY

Motorist safety on the State highway system is an important element of the RTP planning process. The COG has established a safety goal and performance measure to reduce accidents on State highways in the County below the State average for similar facilities. Table 11 compares the 1998 accident rate (accidents per 1,000,000 miles of vehicle travel) by roadway type for the State, Caltrans District 10, and Calaveras County.

Facility Type	State of California	Caltrans District 10	Calaveras County
2 & 3 Lane	1.26	1.53	1.77
4 Lane UD	1.62	2.85	1.43
4 Lane Divided	1.40	2.23	0
2-Lane Expressway UD	0.76	1.23	1.32
2-Lane Expressway Divided	0.70	0.66	0
Total Rural	0.78	0.96	1.72

Source: 1998 Accident Data on California State Highways (Caltrans)

As the table shows, accident rates are higher in Calaveras County for 2 and 3-lane roadways than for comparable facilities in District 10 and Statewide. This trend is typical of other rural counties with mountainous roadways. The Action Element contains several projects to upgrade existing State facilities, repair bridges, and provide for passing lanes. These improvements will help increase safety on the State highway system and lower the accident rate. Each project in the Action Element includes a qualitative assessment of the projects anticipated contribution to safety.

GOODS MOVEMENT

Trucking will continue to be the most commonly used mode for transporting freight in Calaveras County over the next 20 years. Although goods movement by truck can be more expensive than other modes (such as rail) because of high energy and maintenance costs, it is quicker and more flexible. Assuming truck traffic volumes increase at a rate consistent with that projected for passenger cars, the existing roadway system will be subject to increased delay and pavement wear that will further reduce overall capacity and LOS on major roadways within the County.

Cooperative efforts are needed between the trucking industry, Calaveras County, and Caltrans to assess the impacts that trucks have on the roadway network and to create regulatory guidelines for truck travel in the County such as designated truck routes. Routes designated for truck travel should provide turnouts and passing lanes, where necessary, to maximize capacity, maintain LOS, and improve safety.

PUBLIC TRANSIT

Future transit ridership is anticipated to increase in conjunction with population growth in Calaveras County (see Table 12). Although there are many other variables that can have an effect on the magnitude of growth such as frequency of service, access to transit, and passenger amenities, ridership typically increases at a rate similar to population growth.

Indicator	FY 00/01	FY 01/02	FY 02/03	FY 03/04
Total Passengers	22,600	23,100	24,000	24,500
Vehicle Revenue Hours	11,152	12,006	12,006	12,006
Total Operating Costs	\$509,921	\$647,745	\$695,784	\$713,387
Fare box Revenues	\$49,492	\$67,649	\$77,810	\$91,742
Passengers/Revenue Hr.	2.0	1.9	2.0	2.0
Fare box Recovery Ratio	10%	10%	11%	13%

Source: Calaveras Transit Monthly Management Reports; Calaveras Council of Governments FY 2000/01 Transit Budget.

Table 12 shows a projection of Calaveras Transit System ridership and other key indicators through FY 2003/04. The future ridership is assumed to at least track with the population growth trend in the County of approximately two percent per year. Using this estimate, transit ridership will approach 24,500 riders

by FY03/04 and approximately 35,300 by 2022. The transit goal for future operations is the improvement of efficiency and cost-effectiveness of the present service, and possible interregional service to hospital facilities in Stockton. If the system experiences significant ridership increases after the first 3-4 years of operation, geographic expansion of the service area will be considered. Over the long-term (beyond 2010), this plan focuses on maintaining the expanded system, maximizing cost-effectiveness, and possibly providing interregional service to the Central Valley.

Future needs associated with the growing transit demand will include:

- New sources of local funding to supplement fare box revenues and to achieve and maintain a 10 percent fare box recovery ratio in the near term,
- Building awareness for the new Calaveras Transit system and its services through education, updated passenger information, and cost-effective marketing,
- Implementing recommendations in the Calaveras Transit 2000 Marketing Plan as funding allows,
- Building community support for enhanced public transit services through promotion and community outreach,
- Vehicle fleet expansion and replacement as funding allows,
- Improved operating frequencies and expanded hours of operation,
- Providing additional facilities and passenger amenities such as transit shelters and bus turnouts,
- Implementation of Stockton or Lodi service, and
- Expansion of service to Valley Springs.

The Calaveras Transit Marketing Plan (June 2000) identified specific target groups that could benefit by using transit service. Outreach aimed at introducing these groups to the benefits of transit will help increase both system ridership and fare revenues. These target groups are shown in Table 13.

Table 13	
Target Transit Groups for Increasing Ridership	
Target Group	Demographics
Seniors	Seniors currently make up about 40percent of Calaveras Transit ridership and 20 percent of the County Population.
Low Income Families	Approximately 7-8 percent of the County's current population is considered low income, and could benefit from improved transit service.
Low Wage Earners	Thirty percent of all jobs in the County are considered "low wage service" and would benefit from improved transit service.
College Students	Calaveras Transit serves the Columbia College campus in Tuolumne County where several hundred Calaveras County residents attend.
Elementary and Secondary Students	Approximately 8,000 students (k-12) reside in the County. A little less than half of these (3,500) are old enough to go places on their own, but too young to drive.
Persons with Disabilities	Persons with disabilities currently make up about 8% of Calaveras Transit's ridership and will continue to be an important target group.
Source: Calaveras Transit Marketing Plan – June 2000, prepared by Selena Barlow, Marketing Consultant	

AVIATION

According to the *Calaveras County Airport Special Plan*, October 1992, the number of aircraft operations forecast for year 2010 is 125,600. This forecast was based on assumptions for annual aircraft operations per based aircraft, estimated to increase from the current number of 66 to 157 by the year 2010.

Since the runway and taxiway are designed to accommodate roughly 167,000 annual operations, the existing facilities should adequately serve the projected 2010 demand. There are plans to expand the runway to 4,200 feet, which would allow large twin engine and medium-sized jet aircraft to utilize the airport in the future. However, this improvement is not necessary to serve the type of aircraft currently using the airport.

The *Airport Special Plan* also includes goals, policies, and implementation measures for land use development that adhere to Federal Aviation Administration guidelines for safety and noise. This information has been incorporated into the RTP Goals and Policies and will be used to control development in the vicinity of the airport so as not to limit capacity of operations or preclude the use of aircraft already using the airport.

One important need of the airport is to maintain adequate vehicle access to and from the facility as aircraft activity increases. Additional access may be needed to serve the increased demand projected for the airport or to provide an alternate access for emergency vehicles.

BIKEWAY, PEDESTRIAN AND EQUESTRIAN FACILITIES

The quantity of commuter and recreational bicycling is anticipated to increase in the future along many roadways in the County, many of which are not designed to provide safe access. Census data also indicates that approximately three percent of home-to-work travel occurs by walking. Although detailed projections of bicycle and pedestrian travel demand are not available, facilities proposed in the County's BMP (Figure 9) that encourage the use of these alternative modes should be provided to achieve a more balanced transportation system in Calaveras County.

Future needs, which are similar to existing needs for these modes, include wider roadways for shared bicycle/automobile travel, separate bicycle-pedestrian paths, repair and expansion of sidewalk facilities in historic communities where roadway widenings may be precluded, and crosswalks and pedestrian walkways adjacent to state highways to improve safety. Similarly, equestrian enthusiasts are trying to develop permanent trail access along the Mokelumne River in Calaveras County. The proposed Mokelumne Coast to Crest Trail has been included in the Open Space Element of the Calaveras County General Plan.

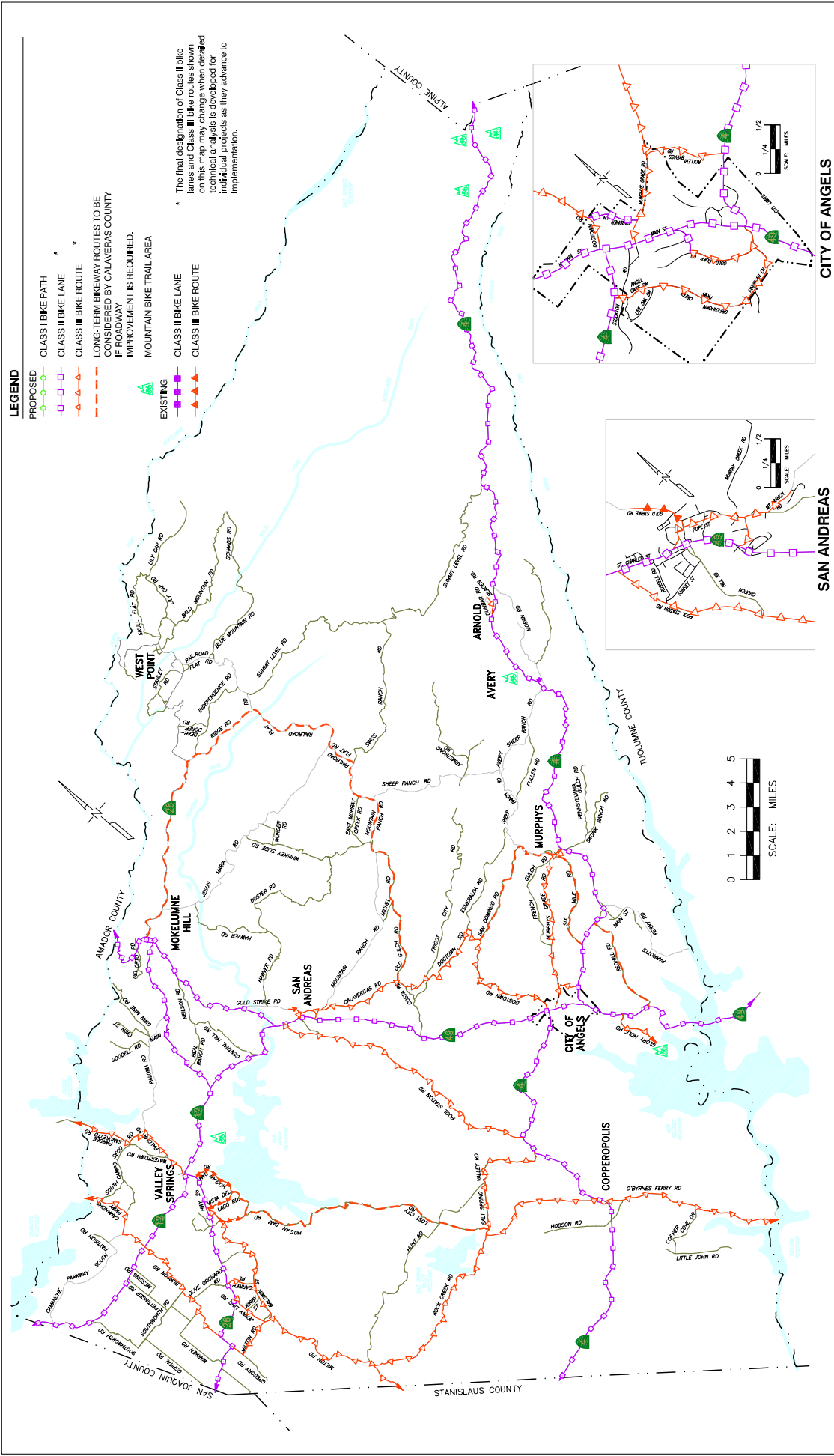
RAILROAD FACILITIES

There are no existing railroad operations in the county and no adopted plans to develop freight or passenger service on the existing (abandoned) rail line. Development of passenger rail service has been

discussed periodically over the last several years, but financial considerations have limited progress of this proposal. Rail feasibility studies for other Foothill Counties (e.g., Amador and Tuolumne) have shown that there would be insufficient ridership to the Central Valley and Sacramento regions to adequately support passenger rail service in the near-term (i.e., before 2010).

TRANSPORTATION SYSTEMS MANAGEMENT

In the years past, there has not been an explicit need for TSM nor TDM measures in Calaveras County because the transportation system could adequately serve demand. As urban-type development has increased and resources to upgrade the County's circulation system have become limited, there has been an increasing need for TSM/TDM techniques to maximize each system's efficiency. Potential TSM/TDM actions that are considered applicable to Calaveras County over the short-range and long-range are included in the action Element (Chapter IV).



**CALAVERAS COUNTY BIKEWAY MASTER PLAN UPDATE
EXISTING AND PROPOSED SYSTEM**
FIGURE 9

III. POLICY ELEMENT

The purpose of the Policy Element is to present direction and guidance for decision-makers regarding Calaveras County's transportation issues. The goals, objectives, and policies express the concerns and desires of the Calaveras Council of Governments and its local communities and give guidance in developing programs and projects to address transportation needs.

POLICY ISSUES

In this section, state, regional and local issues are identified. Needs and issues provide the framework for establishing goals, objectives, and policies for this RTP.

STATEWIDE ISSUES

As a result of limited State funding for transportation related projects, many of the projects in the 1994 STIP had to be reprioritized and included in the 1998 STIP Augmentation. According to Caltrans and CTC staff, this result significantly lowered county minimums, reduced funding commitments (possibly complete deletion) for some currently programmed projects, and reduced levels of spending for maintenance of State Highways. Although the funding picture looks a little better for the upcoming STIP, shortfalls in transportation dollars and sources to cover all of the County's transportation needs will continue to be a primary concern.

REGIONAL AND LOCAL ISSUES

The primary local and regional issues continue to revolve around deteriorating levels of service on most State highways and some regionally significant local roads, with many constraints to be addressed before improvements can be implemented. Increased growth, increasing recreational traffic, and lack of adequate funding for highway improvements, are among the most important issues. Table 14 provides a non-prioritized summary of Calaveras County's most important transportation issues.

Table 14 Regional and Local Transportation Issues		
Transportation Facility/Element	Issue	Potential Solution
Roadway System		
State Highways	General issue of Increasing traffic congestion on most State highways due to increased traffic volumes and lack of passing opportunities.	Construction of priority RTP projects.
Countywide	Lack of passing opportunities on State highways and inadequate right-of-way to meet minimum safety improvement criteria for projects.	Provide additional passing lanes where feasible and identify, map, and secure funding for dedication of future arterial, collector, and local rights-of-way to improve safety and circulation.
	Inequity in the distribution of State highway funds to rural counties based on population rather than need. Large volumes of non-resident recreational traffic exacerbate the problem.	- Seek legislation that changes the formula distribution to need rather than population. - Monitor performance measure #4 to provide evidence of the mismatch between needs and population-based fund allocation.
	Congestion resulting from land-use decisions.	Consider and mitigate transportation impacts for all land-use decisions. Implement Countywide traffic impact fee program to fund additional facilities.
City of Angels*	Unacceptable levels of service on SR 4 and SR 49 in the City of Angels Camp. Traffic study showed LOS B at SR4/SR49 intersection but LOS F during summer peak months.	Construction of the SR 4 North Angels Bypass.
Copperopolis	Congestion on O Byrnes Ferry Road and other collectors due to projected growth through 2022.	Extension of local roadways and implementation of an impact fee program to fund planned improvements.
Ebbetts Pass Area	Congestion due to number of driveways along SR 4.	Implementation of Circulation Element of Ebbetts Pass Highway Special Plan (June, 1988) that establishes policies and objectives for access control.
Arnold	Congestion on SR 4 that serves as "main street" to downtown.	Implementation of Arnold Community Plan (December 1998) that provides for a shift in planned development away from SR 4, limit on driveways along SR 4, and extension of several local streets.
Murphys	Congestion in downtown due to on-street parking.	Implementation of existing Murphys & Douglas Flat Community Plan (June 1988) that provides for centralized parking facilities, and incorporation of recommendations from new circulation/parking study after 7/01.
Mokelumne Hill	Congestion due to on-street parking.	Implementation of Mokelumne Hill Community Plan (June 1988) that requires new developments to provide adequate off-street parking facilities.
San Andreas	Congestion and traffic circulation along SR 49.	Implementation of San Andreas Community Plan (June 1988) that identifies improvements to the existing collector road system and priority locations for new transportation facilities.
County Roads of Regional Significance	Deferred maintenance	Secure new source of maintenance funding
Local Roads	Deferred maintenance	Secure new source of maintenance funding
Goods Movement		
Cooperation with trucking industry	Cooperative efforts are needed between the trucking industry, Calaveras County, and Caltrans to assess truck impacts to highways.	Discuss truck volumes/trends and pavement management measures with the trucking industry.
Public Transportation		
Calaveras Transit – Local service	Use of limited funding to improve transit frequency and quality of service while continuing to serve transit dependent riders in outlying areas.	Meeting "unmet" needs as funding allows.
Calaveras Transit – interregional service	State highway congestion and lack of transit access to nearby urbanized areas.	Provide transit connections to other areas as funding allows. Possibly, seek joint partnerships to provide intra-jurisdictional connections such as the Sacramento link.
Aviation	Maintain existing Airport facilities in safe operating condition.	Providing and maintaining good road access to airports.

GOALS, OBJECTIVES, AND POLICIES

The goals, policies and objectives in this document are intended to guide the development of the transportation system and improve the quality of life for citizens in Calaveras County. The following definitions help differentiate the planning focus of a goal, objective and policy:

- A *goal* is the end toward which effort is directed; it is general and timeless.
- An *objective* is a specific end, condition or state toward attaining a goal. It is achievable, measurable and time specific.
- A *policy* is a direction statement that guides actions for use in determining present and future decisions. A policy is based on RTP goals and objectives as well as the analysis of data.

The goals, objectives and policies for each component of the Calaveras County transportation system are provided below. They are consistent with the policy direction of the Calaveras County General Plan, the Calaveras Council of Governments, and the City of Angels relative to the regional transportation system.

REGIONAL GOALS

1. **Goal:** Provide a High Degree of Mobility for People and Goods in Calaveras County. (linked to Performance Measure 1)

A. Objective: Increase accessibility to all modes of the transportation system.

B. Objective: Provide adequate maintenance funding for all facets of the transportation system

Policy: Promote a balanced multi-modal transportation system that considers all modes.

2. **Goal:** Promote Equity for All System Users. (linked to Performance Measure 4)

A. Objective: Use cost-effectiveness measures to prioritize transportation projects.

Policy: Transportation decisions will be based on equitable access to the region's transportation system and decision-making process.

3. **Goal:** Enhance Sensitivity to the Environment in All Transportation Decisions. (linked to Performance Measure 5)

A. Objective: Promote transportation policies and projects that support a healthful environment.

Policy: Conduct environmental review consistent with the California Environmental Quality Act for individual projects as they advance to the implementation state of development.

Policy: Avoid areas of sensitive habitats for plants and wildlife when constructing facilities contained in

the proposed system whenever feasible. If sensitive areas are affected by new routes, mitigate impacts through the appropriate California Environmental Quality Act or National Environmental Policy Act process.

4. **Goal:** Support the Vitality of the Region. (linked to Performance Measure 8)

A. Objective: Maintain and promote the competitiveness of the region by directing investment in the transportation infrastructure.

Policy: Transportation improvements should be used to create more livable communities and enhance the county quality of life.

STATE HIGHWAYS

5. **Goal:** Construct all State highway improvements that are needed to keep pace with increasing local and regional recreation travel and that increase public safety. (linked to Performance Measure 1 and 2)

A. Objective: Secure full funding for County and Caltrans efforts to reduce traffic congestion and improve safety on State highways.

Policy: The COG will work with the County, Caltrans and the City of Angels to identify funding to implement highway improvements necessary to prevent capacity deficiencies and to provide adequate levels of service on State highways in Calaveras County. Local agencies should use the following funding mechanisms, individually or in combination, to pay for improvements:

- State and Federal transportation funding;
- Local sales tax increases as allowed by State law;
- Area traffic mitigation fees and/or county-wide mitigation fees;
- Special Assessment District for improvement projects; and
- Dedication of land or other transportation improvements by developers.

6. **Goal:** Provide and maintain a highway system with sufficient capacity to serve projected traffic at acceptable levels of service. (linked to Performance Measure 1)

A. Objective: Maintain Caltrans' acceptable levels of service on all county roads and state highways.

Policy: All local jurisdictions should require traffic analysis for new development projects that generate more than 50 peak hour trips.

7. **Goal:** Enhance opportunities for safe pedestrian travel on and across State highways (linked to Performance Measure 2)

A. Objective: Reduce pedestrian/vehicle injury accidents below the statewide average on State highways within the County.

Policy: Local jurisdictions should work with Caltrans to provide pedestrian facilities and crosswalks along state highways as needed to improve safety.

LOCAL ROADWAY SYSTEM

8. **Goal:** Maintain a local road system to serve the public's needs for mobility and access.

A. Objective: Accept new roads into the locally maintained road system only when they meet the criteria established by the local agency.

Policy: Access to new development and to newly created parcels should meet County standards under any applicable Community Plan, Specific Plan, Special Plan, or Mixed Use/Master Project area, and the applicable jurisdictional road ordinances.

ROAD MAINTENANCE

9. **Goal:** Maintain local roads in a safe condition. (linked to Performance Measure 2 and 4)

A. Objective: Reduce the “backlog” of deferred maintenance by 25 percent by 2025.

Policy: The COG shall work with the County, the State Legislature, Caltrans and the City of Angels to identify new sources of maintenance funding.

PUBLIC TRANSIT

10. **Goal:** Develop and maintain affordable and effective public and private transportation for County residents, especially disabled residents and others with specialized transportation needs. (linked to Performance Measure 3)

A. Objective: Monitor monthly management reports and performance measures for Calaveras Transit and adjust service and schedules accordingly.

Policy: Meet any unmet transit needs that are reasonable to meet according to the criteria established by the COG.

AVIATION

11. **Goal:** Protect existing residents from significant noise and hazards from new private airports. (linked to Performance Measure 5)

A. Objective: Use the following criteria to site individual private airports.

- Not within an existing residential subdivision.
- Compatible with adjoining existing and potential land uses.

- Compliance with County noise and safety policies.
- Compliance with the standards of the Airport Special Plan.

Policy: Require conditional use permits for all airports.

12. **Goal:** Enhance, maintain and improve the Calaveras County Airport. (linked to Performance Measure 5)

- A. Objective:** Implement land use, zoning and development policies of the Airport Special Plan.

Policy: Prevent new land uses and zoning surrounding the County Airport from creating future land use conflicts.

RAILROADS

13. **Goal:** Promote opportunities for rail transport of goods and passengers to and from the County. (linked to Performance Measure 8)

- A. Objective:** Provide a transit connection to future rail service if and when it becomes a reality.

Policy: Local jurisdictions should protect potential rail corridors whenever possible.

GOODS MOVEMENT

14. **Goal:** Promote the continued and expanded use of trucking for the transport of suitable products and materials. (linked to Performance Measure 8)

- A. Objective:** Install passing lanes, turnouts, and other low-cost improvements to minimize adverse traffic impacts from truck traffic.

Policy: Promote the efficient utilization of truck transport through transportation and land use decisions.

15. **Goal:** Provide for truck travel on County facilities that can safely accommodate heavier vehicles.

- A. Objective:** Keep the trucking industry informed about truck impacts to County facilities and lessen the impact wherever possible.

Policy: The COG shall work with the County, Caltrans, and the trucking industry to develop regulatory guidelines for truck travel in and through the County.

BICYCLE, PEDESTRIAN AND EQUESTRIAN TRAVEL

16. **Goal:** Provide a comprehensive system of facilities and amenities to provide safe travel for bicycles, pedestrians, and equestrians on existing and proposed roads.

A. Objective: Implement the priority projects in the most recent bicycle master plan for each jurisdiction as funding allows.

Policy: Design and fund improvements of transportation facilities with primary consideration to providing for the safety of school children and local residents on existing and proposed facilities.

MANAGEMENT OF THE TRANSPORTATION SYSTEM

17. **Goal:** Minimize traffic congestion by increasing the efficiency of the existing transportation system through Transportation System Management (TSM) techniques. (linked to Performance Measure 7)

A. Objective: Periodically review traffic operations along State highways and major county roads.

Policy: Promote signal timing, access management, transit priority treatments, and accident scene management measures to help increase traffic flow.

18. **Goal:** Where feasible, reduce the demand for travel by single-occupant vehicles through transportation demand management techniques.

A. Objective: Increase the mode share for public transit through operational improvements.

B. Objective: Establish a formal ride share program within the County by 2010.

Policy: Promote public awareness of Calaveras Transit and rideshare opportunities through media and promotional events.

IV. ACTION ELEMENT

The Action Element sets forth a plan of action to address issues and needs identified in accordance with the RTP goals, objectives and policies. It identifies short-range (0-10 years) and long-range (11-20 years) transportation improvements for inclusion in the Regional Transportation Improvement Program (RTIP). The Action Element includes a discussion on past accomplishments, the State and regional planning processes, the program level “performance measures” selected to help prioritize projects, and the short-term and long-term improvements that were selected for each component of the transportation system.

PAST ACCOMPLISHMENTS

THREE COUNTY MOU

One of the most beneficial accomplishments for the County has been its participation in the Tri-County Memorandum of Understanding (MOU) that was entered into in August 1997. The following information provides the historical developments that led to the MOU between Amador, Calaveras, and Alpine Counties.

In February of 1996, Amador and Calaveras Counties entered into a two party MOU related to the Amador Route 49 (Sutter Creek) Bypass and the Calaveras SR 4 (Angels Camp) Bypass projects. Under the MOU, Amador and Calaveras agreed to ask the CTC to ‘pool’ their STIP allocations for programming purposes. Calaveras also consented to allow the CTC to transfer STIP funds that were previously allocated to the Calaveras SR 4, Angels Camp Bypass project, to the Amador SR 49 project in exchange for the future support by Amador of the Angels Camp Bypass.

In May of 1996, Alpine and Calaveras Counties entered into a separate two party MOU related to the Calaveras SR 4 (Angels Camp) Bypass project. Under the agreement, both Counties agreed to “pool” their STIP allocations for the purpose of funding the Calaveras SR 4 (Angels Camp) Bypass project.

Subsequent to execution of the above MOU’s, the scope of the Amador project was refined and all three Counties agreed to “pool” their STIP allocations for the purpose of funding the Amador SR 49 Bypass, the Calaveras SR 4 Bypass, and constructing various passing lane projects for Alpine County on SR 88 and SR 4. The passing lanes are critical to Alpine County to relieve congestion and improve safety on two-lane State highways traveled by its residents and visitors.

The Tier One priorities for the 1998 STIP included obtaining supplemental funding to make up the shortfall on the Amador SR 49 project and seeking partial funding to purchase ROW for the Calaveras SR 4 Bypass project. The Tier Two priorities (year 2000 and, if required, subsequent STIPs) for the Tri-County MOU are to seek additional funding to fully fund the Calaveras SR 4 (Angels Camp) Bypass, and to construct one or more additional passing lanes on SR 88 for Alpine County. The projects in the MOU have been advanced to the environmental stage and it is anticipated that one or more of the projects will be fully funded in the 2002 STIP.

CALAVERAS TRANSIT

Another significant accomplishment has been the success of the Calaveras Transit System. Since its inception in October 1999, ridership has increased to approximately 1,800 riders per month. The system is comprised of six fixed-routes that provide weekday service to major portions of the County. The demand for transit service is expected to continue to increase in the future as more development occurs and as the population becomes older and more transit dependent.

RTP IMPROVEMENTS

In addition to the MOU and transit achievements, Calaveras County has accomplished the following from the 1996 RTP:

Completed

- Wouthworth/Bear Creek Bridge (Br. # 30C-78),
- Realigned SR 49 south of Red Hill Road,
- Constructed a new alignment and bridge replacement on Rail Road Flat Road over South Fork Mokelumne River (Br. #30C-37),
- Dogtown Road/San Antonio Creek Bridge (Br.# 30C-52),
- Gwen Mine Road Bridge (Middle Bar Bridge # 30C-16),
- SR 26 Bridges at Indian Creek (Br. # 30-24) and Stone Coral (Br. # 30-23).

Under Construction

- Pool Station/ Calaveritas Creek (Br. # 30C-35)
- Main Street/ Cota Cyote Creek (Br. # 30C-15)

STATE AND REGIONAL PLANNING PROCESSES

The State and regional planning processes are defined by legislation on the federal and state level. TEA-21 and SB 45 have had significant effects on the RTP planning process in the past few years with new requirements for transportation planning, air quality conformity, project selection and delivery responsibility, development and implementation of transportation system performance measures, decision making, and the allocation of federal funds. In addition, the 1999 RTP Guidelines place significant emphasis on showing linkages between projects in the RTP and the RTIP/STIP process. The Regional planning process at the State and Federal level is included as Appendix H of the 1999 RTP Guidelines. The same Appendix is replicated and included as Appendix H of this RTP. The discussion below focuses on those components of the State and regional processes that have specific application to Calaveras County.

STATE PLANNING PROCESS

The STIP now consists of two broad programs, the Interregional Transportation Improvement Program (ITIP) and the Regional Improvement Program (RIP). The ITIP is funded with 25 percent of the State Highway Account revenues programmed through the STIP. The RIP is funded from 75 percent of the new STIP funds, divided by formula among fixed county shares. Each county selects the projects to be funded from its share in the RTIP. Under AB 2928, the 2002 STIP and future STIPs will cover 5-year periods. The ITIP funds capital improvements on a statewide basis, including capacity increasing projects primarily outside of an urbanized area. Projects are nominated by Caltrans and submitted to the CTC for inclusion in the STIP. The ITIP is updated every two years by the CTC.

In Calaveras County, as in many other rural counties, the State planning policy revolves around the Federal TEA-21 enabling legislation. The STIP will program projects included in the RTIP and ITIP programs. Additionally, Caltrans is responsible for State highway improvements of a non-capacity-increasing nature for rehabilitation, safety or operational improvements through SHOPP. These SHOPP projects do not count against the County minimums. Caltrans is also required to develop a California Transportation Plan (CTP). The CTP, which is currently being revised, will include a policy element describing state transportation policies and system performance objectives, a strategies element incorporating broad system concepts and strategies partially synthesized from the RTP, and a recommendations element that includes economic forecasts and recommendations to the Legislature and Governor. The CTP is ultimately submitted to the Governor for approval.

REGIONAL PLANNING PROCESS

The COG is designated as the Regional Transportation Planning Agency (RTPA) for Calaveras County. In compliance with State statutes, the COG is comprised of three members appointed by the County Board of Supervisors and three members appointed by the City of Angels (Angels Camp). Citizens are encouraged to participate by attending the regularly scheduled meetings and public hearings.

A primary responsibility of the COG is to adopt and update the RTP and RTIP in accordance with state law. These plans are developed to provide a clear vision of the regional transportation goals, objectives, and policies for the County. The vision must be realistic and be within fiscal constraints. The COG is also responsible, with City of Angels and Calaveras County staff input, for determining the priorities for all proposed new transportation facilities and programs shown in the RTP.

The Calaveras COG approves the Overall Work Program (OWP) each fiscal year. The OWP outlines the transportation planning work to be accomplished, including responsible agencies and funding, in order to ensure that an adequate and up-to-date RTP is maintained. The OWP must also be approved by Caltrans before State subvention funds can be used for transportation planning studies, or administration. The State may provide State Subvention Funds for up to 70% percent of the funding to support work program activities. The remaining 30 percent comes from local sources such as cash or in-kind services

ASSUMPTIONS

The RTP is a document that contains both policy and action direction for the future implementation of transportation system improvements. Although Calaveras County has not experienced substantial growth over the past decade (i.e., less than two percent annual growth between 1995 and 2000), the County, as addressed previously, has an existing backlog of “deferred maintenance” projects (approximately \$38 million for the County, and \$1.5 million for the City of Angels) that are required to improve safety and operations of the transportation system. This backlog stems from a lack of sufficient past funding for maintenance and operations, a roadway system that was not designed to accommodate commuting patterns that have evolved in the western County, and the peak recreational traffic demands that occur during peak summer months.

This RTP responds to these issues based on the following plan assumptions:

- The population of Calaveras County will grow at a modest 1 to 2 percent annually.
- The population of the surrounding Counties of Alpine, Amador, San Joaquin, Stanislaus and Tuolumne will increase at a rate generally consistent with the State Department of Finance (DOF) estimates.
- The automobile will continue to be the primary mode of travel by residents of Calaveras County.
- Recreation-oriented travel will continue to affect State highways and major County roadways.
- Transit service demand will continue to grow, primarily due to the number of elderly, handicapped, and low income persons residing in the County.
- Local road maintenance will continue to be a major issue if a new source of maintenance funding is not identified.
- The available transportation financing for projects at the local, State and Federal levels will not keep pace with the needs of the County.
- Fuel prices will have only a small effect on people’s driving choices.
- The developed areas of the County will continue to experience increased growth in housing stock consistent with the General Plan and RIM projections.

PROGRAM-LEVEL PERFORMANCE MEASURES

Consistent with the RTP Guidelines, Caltrans identified four broad goals for performance measurement:

1. To understand the role the transportation system plays in society;
2. To focus on outcomes at the system level rather than projects and process;
3. To build transportation system partner relationships with clearly defined roles, adequate communication channels, and accountability at all levels; and
4. To better illuminate and integrate transportation system impacts of non-transportation decisions.

The program- level performance measures selected for Calaveras County are shown in Table 15.

**Table 15
RTP Program Level Performance Measures**

Performance Measure ¹	Data Source	RTP Measure	RTP Objective
1. Mobility/Accessibility	Caltrans and County traffic volumes	Minimum acceptable LOS on average daily basis	Provide Acceptable LOS by 2010 on all regionally significant roadways (<i>Goal 6 Objective (a)</i>)
2. Safety	Caltrans, California Highway Patrol, County Department of Public Works	Number of accidents on State highways per 1,000,000 vehicle miles of travel	Reduce the number of accidents on State highways below state average for similar facilities. (<i>Goal 7 Objective (a)</i>)
3. Transit Cost Effectiveness	Monthly/quarterly transit operations reports	Fare box recovery ratio	Achieve and maintain at least a 10 percent fare box recovery ratio for fixed-route transit service (<i>Goal 10 Objective (a)</i>)
4. Equity	Caltrans STIP and SHOPP Allocation Estimates	Ratio of STIP and SHOPP allocations to County revenue shortfall for State highway projects	Make the distribution of transportation funds more consistent with transportation needs, rather than population (<i>Goal 5 Objective (a)</i>)
5. Environmental Quality	Environmental thresholds or significance criteria adopted in the General Plan and/or independently for application in CEQA documents.	Avoid or minimize significant impacts	Analyze the potential short-term and long-term environmental impacts of transportation decisions and mitigate adverse impacts to "less than significant." (<i>Goal 3 Objective (a)</i>)
6. Cost Effectiveness	Traffic counts, traffic forecasts, cost estimates provided by Caltrans and/or the County.	Construction cost per new trip served	Prioritize projects based on cost effectiveness (<i>Goal 2 Objective (a)</i>)
7. Economic Well Being	Caltrans Traffic Volumes	Minimum acceptable LOS in peak month	Provide acceptable LOS by 2010 on all State Highways (<i>Goal 6 Objective (a)</i>)

Notes: ¹The California Transportation Commission (CTC) RTP Guidelines adopted in December 1999 recommend the inclusion of program level performance measures (outcome-based) to help determine how the planned improvements to the system are achieving the desired outcomes of the RTP consistent with the goals, policies, and objectives of the plan. Performance measures are defined as a set of objectives and measurable criteria used to evaluate the performance of the transportation system and to select plan alternatives.

Source: Fehr & Peers Associates Inc. 2001

APPLICATION OF PERFORMANCE MEASURES

The program level performance measures in Table 15 are used to help select RTP project priorities, and to monitor how well the transportation system is functioning, both now and in the future. The application of each performance measure and their location within the RTP are identified below:

1. Mobility/Accessibility - Goal 6 Objective (a)

This performance measure monitors how well State and County roads are functioning based on level of service (LOS). The acceptable LOS for State highways and County roads is LOS C or better. Table 5 shows the current roads experiencing LOS D or higher. Table 9 shows those roads that will experience unacceptable LOS in the future if no road improvements are constructed. Figures 4 and 8 show the location of these road segments. Implementation of the priority RTP highway and road projects will result in acceptable LOS within the County.

2. Safety - Goal 7 Objective (a)

Safety is monitored through the accident rate (accidents per 1,000,000 miles of travel) for State highways. Table 11 compares the average rate for Calaveras County with the rate for Caltrans District 10, and the State, on similar facilities. The accident rates for undivided two and three-lane roadways in Calaveras County are substantially higher than the State and District 10 averages. County projects that focus improvements on safety are important to reducing the accident rate on these facilities.

3. Transit Cost Effectiveness – Goal 10 Objective (a)

The fare box recovery ratio provides one means to monitor the performance of the transit system before and after transit projects are implemented. Table 8 shows a current ratio of seven percent. Table 12 provides the projected future fare box recovery ratio through FY 2003/04. The emphasis will be to implement projects that help achieve and maintain a fare box ratio of 10 percent or higher.

4. Equity - Goal 5 Objective (a)

This measure will be applied when fund allocations are available from Caltrans.

5. Environmental Quality - Goal 3 Objective (a)

This measure is applied prior to actual construction of a project. Each project must comply with environmental criteria from CEQA (State) and/or NEPA (Federal) depending on whether the funding source is a federal or state program.

6. Cost Effectiveness - Goal 2 Objective (a)

This measure considers compares the construction cost to implement the project relative to the number of new trips that will benefit from the project. It provides a quantitative means to rank highway projects

relative to each other. The cost effectiveness measure is applied to State and County road projects in Table 34 in the Financial Element.

7. Economic Well Being - Goal 6 Objective (a)

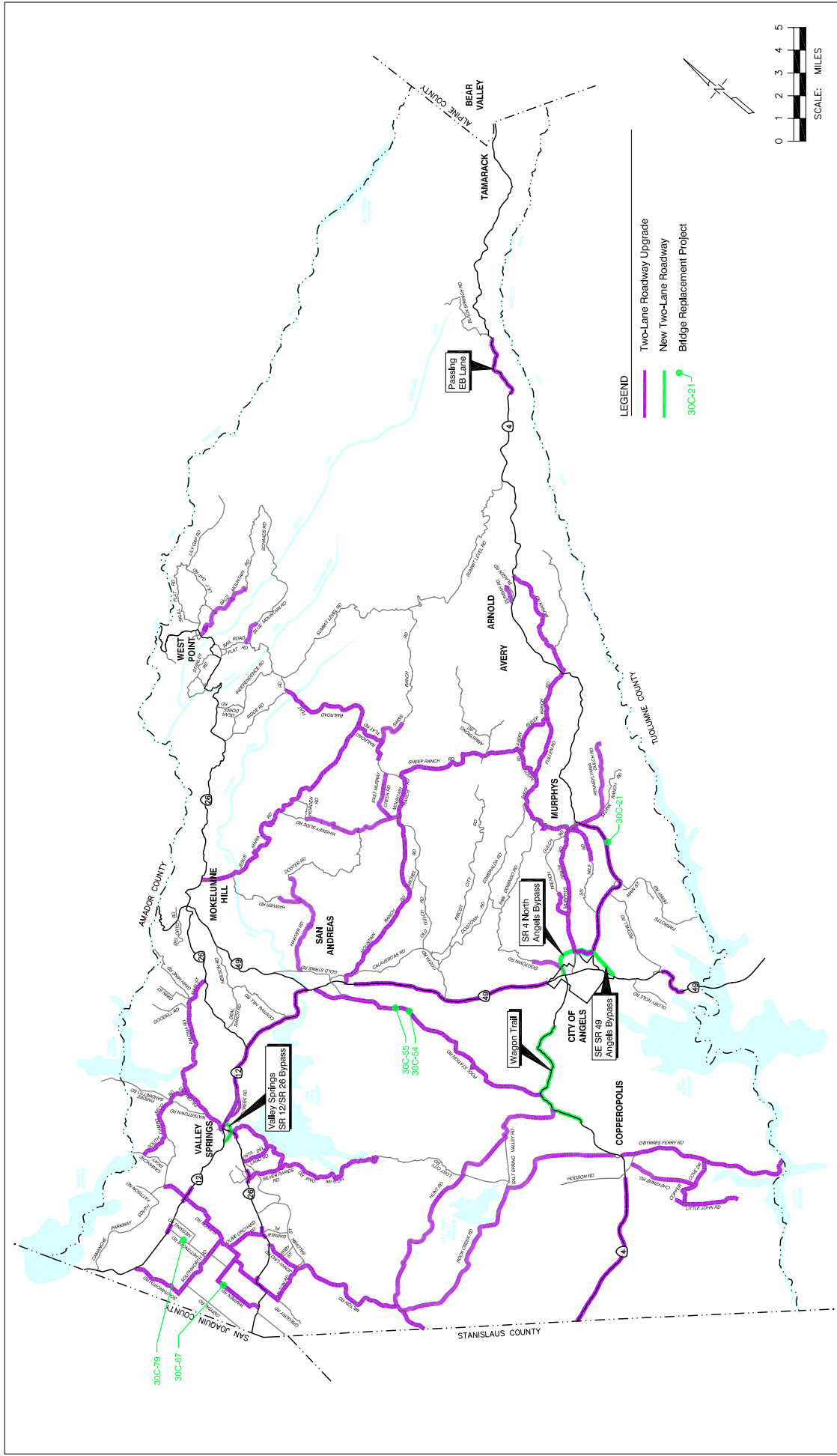
Calaveras County experiences a significant amount of recreational and through traffic, particularly during peak summer months. As a result, the LOS during peak periods often reaches unacceptable levels (LOS D or higher). This measures monitors the LOS during the peak month. Tables 5 and 9, and Figures 4 and 8 show those areas where improvements would help reduce the peak month LOS.

REGIONAL AND LOCAL ACTION PROGRAMS

The regional and local action programs for this RTP are a compilation of projects already proposed and/or planned for Calaveras County in past RTPs and planning studies, as well as new projects deemed necessary to provide adequate operation of the various transportation systems. The recommended improvements for the roadway system, the transit system, aviation facilities, bikeway and pedestrian facilities, and the goods movement system will serve to alleviate existing transportation problems and accommodate future travel demand. Action programs for Transportation Systems Management (TSM), Transportation Demand Management (TDM), Intelligent Transportation Systems (ITS) and air quality are also included in this chapter.

REGIONAL ROAD SYSTEM (YEAR 2022)

To provide acceptable operations along the regional road system, Calaveras County proposes a series of improvements to be sponsored by the State, the County, and/or the City of Angels (Angels Camp). The highest priority improvements to the regional road system are shown in Figure 10. These improvements are linked to the roadway deficiencies identified in Table 9, the Goals and Objectives from Section III, and the recommended improvements from the RIM analysis. Tables 16-23 describe each improvement in detail including type of improvement and funding program, implementation schedule (short-range vs. long-range), and purpose. Additional information on improvements follows the table and Appendix C contains detailed descriptions of the critical roadway improvement projects.



Calaveras RTP
 PRELIMINARY ROADWAY IMPROVEMENTS
 FIGURE 10

Table 16									
Calaveras County									
Short-Range Capital Improvement Program (0 - 10 Years)									
STIP Funded State Highway Projects									
Priority	Funding Source	Caltrans Project Number	Route - PM	Description	Estimated 2001 Cost (\$1,000)	Construction Year	Purpose/Need		
							Congestion Relief	Safety Improvement	MultiModal Improvement
1	RIP, IIP (P)*	0304B	4 - R21.1/R23.4	In Angels Camp, north of junction Route 49 to east of Roller Road - construct 2-lane expressway (North Angels Bypass)	\$31,400	07/08	yes	yes	
2	RIP, IIP (P)*	3294	4 - 53.8/R54.9	Near Arnold - west of Black Springs - construct passing lane (eastbound)	\$2,783	03/04	yes	yes	
3	RIP/IIP	3066/3085	4 - M10.3/R16.4	Wagon Trail - From 2.1 miles east of O'Byrnes Ferry Rd./ Rock Creek Rd. to 2.0 miles west of SR 49 construct 2-lane expressway. PSR completed.** See note.	\$27,000	TBD	yes	yes	
4	RIP		12/26 8.6/11.2	Near Valley Springs from 1.3 miles west to 1.3 miles east of Jct. SR 26 construct 2-lane expressway on new alignment (SR 12/26 Valley Springs Bypass)	\$11,150	TBD	yes	yes	
5	RIP/Local (P)*		4	From Angels Bypass to Murphys - construct passing lanes	\$3,450	TBD	yes	yes	
6	RIP/Local (P)*		12	Improve sight distance at the SR 12/Pettinger Rd. intersection	\$690	TBD	yes	yes	
7	RIP/Local (P)*		12	Construct two-way center left-turn lane from Burson Rd. to the El	\$1,150	TBD	yes	yes	
Total					\$77,623				
Notes: *(P) = Programmed; ** Wagon Trail Project costs range from \$27,000,000 to \$37,000,000 depending on speed and design of the facility.									
Local: May include funds from Road Impact Mitigation Program (RIM); RIP - Regional Improvement Program; IIP - Interregional Improvement Program; TBD - To Be Determined									

Table 17									
Calaveras County									
Short-Range Capital Improvement Program (0 - 10 Years)									
SHOPP Funded State Highway Projects									
Priority	Funding Source	Caltrans Project Number	Route - PM	Description	Estimated 2001 Cost (\$1,000s)	Construction Year	Purpose/Need		
							Congestion Relief	Safety Improvement	Multi-Modal Improvement
1	SHOPP(P)*	3078	4 - 12.5 (0.5 miles)	Near Altaville - 2.4 miles east of O'Byrnes Ferry Road - realign curve (<i>Safety</i>)	\$1,745	01/02		yes	
2	SHOPP(P)*	3482	26 - 7.2 (1.1 miles)	Valley Springs - Silver Rapids Road - realign existing curve (<i>Safety</i>)	\$5,076	03/04		yes	
3	SHOPP(P)*	3387	12 - 3.0 (7.2 miles)	Near Wallace - east of Southworth Road to Route 26 - (<i>Rehabilitation</i>)	\$6,451	01/02		yes	
4	SHOPP(P)*	136	4 - 28.9	Near Murphys and Sonora - on Route 4 and at Soulsbyville Rd. - construct two sand storage facilities (<i>Operations</i>)	\$1,477	01/02		yes	
5	SHOPP(P)*	3281	4 - 49.6/58	Near Camp Connell from 1.3 miles west of Cabbage Patch Maintenance Station - Resurface asphalt concrete (<i>Rehabilitation</i>)	\$2,630	01/02		yes	
Total Programmed					\$17,379				
Notes:									
*(P) – Programmed; SHOPP – State Highway Operation and Projection Program									

Table 17 Continued

Calaveras County

Short-Range Capital Improvement Program (0 - 10 Years)

SHOPP Candidate State Highway Projects

Priority	Funding Source	Caltrans Project Number	Route - PM	Description	Estimated 2001 Cost (\$1,000s)	Construction Year	Purpose/Need		
							Congestion Relief	Safety Improvement	Multi-Modal Improvement
	SHOPP		Various	Spot improvements TSI = 200	\$9,500	01/02		yes	
	SHOPP		Various	2 & 3 lane safety projects	\$1,000	01/02		yes	
	SHOPP	3253	4 /44.4-44.8	Curve correction	\$1,500	03/04		yes	
	SHOPP	3087	4 /14.2-14.8	Improve alignment and provide shoulder	\$1,100	03/04		yes	yes
	SHOPP	3482	26 /7.2-8.3	Curve correction and widen	\$2,550	03/04		yes	
	SHOPP		26 /30.0	#30-0022 Deck rehab/rails	\$5,000	05/06		yes	
	SHOPP		26/38.3	#30-0049 Deck rehab/rails	\$5,000	05/06		yes	
	SHOPP		49/16.4	#30-0018 Deck rehab/rails	\$5,000	05/06		yes	
	SHOPP		49/R20.7	#30-0030 Deck rehab	\$5,000	05/06		yes	
	SHOPP		4/21.4	#30-0008 Rails/widen	\$2,000	05/06		yes	
	SHOPP		49/7.2	#30-0019 Rails/widen	\$2,000	05/05		yes	
	SHOPP		12/3.0-10.2	Structural section repair	\$4,868	01/02		yes	
	SHOPP		4/42.7-49.6	C. CAPM	\$1,100	02/03		yes	
	SHOPP		26/10.3-22	C. CAPM	\$3,000	02/03		yes	
	SHOPP		4/0-18.8	P. CAPM	\$4,500	03/04		yes	
	SHOPP		12/10.2-18.2	P. CAPM	\$1,360	03/04		yes	
	SHOPP		26/0.0-3.0	Structural section repair	\$9,580	04/05		yes	
Subtotal for Candidate Projects					\$64,058				

SHOPP – State Highway Operation and Projection Program

Table 17 Continued									
Calaveras County									
Short-Range Capital Improvement Program (0 - 10 Years)									
SHOPP Candidate State Highway Projects									
Priority	Funding Source	Caltrans Project Number	Route - PM	Description	Estimated 2001 Cost (\$1,000s)	Construction Year	Purpose/Need		
							Congestion Relief	Safety Improvement	Multi-Modal Improvement
	SHOPP		4/18.8-42/7	P.CAPM	\$4,100	04/04		yes	
	SHOPP		4/49.6-65.9	P.CAPM	\$2,771	05/06		yes	
	SHOPP		26/15.5-27.8	P.CAPM	\$3,096	07/08		yes	
	SHOPP		26/0.0-3.0	P.CAPM	\$750	09/10		yes	
	SHOPP		12/0.0-3.0	P.CAPM	\$1,500	10/11		yes	
	SHOPP		4 & 49/21.4	Intersection improvement	\$3,000	05/06		yes	
	SHOPP		4/30.0-41.0	Intersection improvement/ shoulder widening	\$3,000	06/07		yes	
	SHOPP		4/41.0-47.0	Curve correction/shoulder widening	\$3,000	07/08		yes	
	SHOPP		4/47.0-57.0	Intersection improvements/shoulder widening	\$3,000	07/08		yes	
	SHOPP		26/8.0-10.3	Curve correction/shoulder widening	\$2,500	07/08		yes	
	SHOPP		26/0.0-2.5	Intersection improvement/ shoulder widening	\$1,500	08/09		yes	
	SHOPP		4/57.0-66.0	Intersection improvements/turn-outs	\$1,000	09/10		yes	
	SHOPP		4/60.0	Replace old buildings	\$820	04/06		yes	
Subtotal for Candidate Projects					\$30,037				
Total SHOPP Candidate List					\$111,474				

SHOPP – State Highway Operation and Projection Program

Table 18									
Calaveras County									
Short-Range Capital Improvement Program									
County Road Projects (0 - 10 Years)									
Priority	Funding Source	Caltrans Project Number	Route - PM	Description	Estimated 2001 Cost (\$1,000)	Construction year	Purpose/Need		
							Congestion Relief	Safety Improvement	Multi-Modal Improvement
High	HBRR		Pool Station Rd.	Bridge replacement over San Antonio Creek (Bridge#30C-55)	\$863	2002		yes	
High	HBRR		Pool Station Rd.	Bridge replacement over San Domingo Creek (Bridge #30C-54)	\$863	2002		yes	
Med	Local		Cheyene Rd.	Upgrade Cheyene Rd. to minimum County road standards (0.75 miles)	\$838	TBD		yes	
Med	Local		Lime Creek Rd.	Upgrade to minimum County road standards	\$491	TBD		yes	
Med	Local		Moran Rd.	Upgrade to minimum County road standards	\$1,635	TBD		yes	
Med	Local		Milton Rd.	Upgrade to minimum County road standards	\$3,178	TBD		yes	
Med	Local		Dunbar Rd.	Upgrade to minimum County road standards	\$747	TBD		yes	
Total					\$8,615				
Notes: TBD - To be determined when Calaveras County Supervisors adopt a county-wide mitigation fee program. Local - May include Road Impact Mitigation Program (RIM) funding ; HBRR - Highway Bridge Replacement and Rehabilitation Program									

TABLE 19
City of Angels
Short-Range Capital Improvement Program
Highway Projects (0-10 Years)

Priority	Funding Source	Caltrans Project Number	Route	Description	Estimated 2001 Cost (\$1,000)	Construction Year	Purpose/Need		
							Congestion Relief	Safety Improvement	Multi-Modal Improvement
TBD	RIP/Local		SR 4 Bypass/SR 4 Intersection	Intersection improvement that provides for grade separation instead of "T"	\$400	TBD		yes	
1	HES/Local		SR4/SR49 South Intersection	Reconstruct Bridge	\$1,836	TBD		yes	
2	HES/Local		GHC Rd. to SR 49	Greenhorn Cr. Rd. Extension south	\$6,327	TBD	yes		
3	Local		Citywide	Street rehabilitation (deferred maintenance)	\$1,464	0-10		yes	
4	HES/Local		Dogtown Rd.	Realignment	\$365	TBD		yes	
5	HES/Local		Angel Oaks Dr. to SR 49	Angel Oaks Dr. Extension north	\$1,000	TBD	yes		
6	HES/Local		various locations	Install traffic signals at major intersections	\$709	TBD	yes	yes	
7	HES/Local		Sonora Street	From Marina Street to 300 feet north - construct 275 feet of retaining wall and install 300 feet of guardrail	\$375	TBD		yes	
8	HES/Local		Gardner Lane north of Murphys Grade Rd.	Construct 1,500 feet of curb, gutter, sidewalk, storm drain and widen	\$365	TBD		yes	yes
9	HES/Local		Finnegan Lane	Construct 60 meet of retaining wall	\$85	TBD		yes	
10	HES/Local		Booster Way	From SR 4 to Booster Way Bridge - widen, realign, and reconstruct 300 foot section	\$300	TBD		yes	
11	HES/Local		Roller Bypass Rd./ Murphys Grade Rd.	Realign intersection, relocate PG&E driveway, install 450 feet of drain, and resurface	\$200	TBD		yes	
Total					\$13,426				

Notes:
 Local - May include Road Impact Mitigation Program (RIM) funding; HBRR - Highway Bridge Replacement and Rehabilitation Program; HES - Hazard, Elimination and Safety.

Table 20
Calaveras County
Long-Range Capital Improvement Program (11 - 20 Years)
STIP Funded State Highway Projects

Priority	Funding Source	Caltrans Project Number	Route	Description	Estimated 2001 Cost (\$1,000)	Construction Year	Purpose/Need		
							Congestion Relief	Safety Improvement	MultiModal Improvement
High	STIP		49	Widen and add passing lanes from 0.4 miles north of Cherokee Creek Br. To 0.1 miles north of Angels Rd.	\$11,242	TBD	yes	yes	
High	STIP		26	Install left turn lane at Garner Place	\$1,000	TBD	yes	yes	
High	STIP		4	Construct passing lanes from the Stanislaus Co. line to west of Reeds Turnpike	\$2,400	TBD	yes	yes	
Total					\$14,642				

Table 21
Calaveras County
Long-Range Capital Improvement Program (11 - 20 Years)
SHOPP Funded State Highway Projects

Priority	Funding Source	Caltrans Project Number	Route	Description	Estimated 2001 Cost (\$1,000)	Construction Year	Purpose/Need		
							Congestion Relief	Safety Improvement	MultiModal Improvement
				To be completed					
				To be completed					
				To be completed					
Total					\$0				

Table 22									
Calaveras County									
Long-Range Capital Improvement Program (11 - 20 Years)									
County Road Projects									
Priority	Funding Source	Caltrans Project Number	Route	Description	Estimated 2001 Cost (\$1,000)	Construction year	Purpose/Need		
							Congestion Relief	Safety Improvement	Multimodal Improvement
TBD	Local		Murphys Grade Rd.	Widen and realign roadway from SR 4 to French Gulch Rd.	\$6,719	TBD	yes	yes	
TBD	Local		O'Byrnes Ferry Rd.	Construct road/shoulder improvements and passing lanes for 8 miles	\$11,490	TBD	yes	yes	
TBD	Local		Copper Cove Dr.	Upgrade to County minimum road standards - full length	\$1,600	TBD		yes	
TBD	Local		Vista del Lago	Upgrade to County minimum road standards - full length	\$884	TBD		yes	
TBD	Local		Mountain Ranch Rd.	Reconstruct roadway from SR 49 to Sheep Ranch Rd. (10.2 miles)	\$3,450	TBD		yes	
TBD	Local		Silver Rapids Rd.	Upgrade to County minimum road standards - full length	\$136	TBD		yes	
TBD	Local		Jenny Lind Rd.	Upgrade to County minimum road standards - full length	\$450	TBD		yes	
TBD	Local		Railroad Flat Rd.	Upgrade to minimum County road standard - Jesus Maria Rd. to Ridge Rd.	\$2,325	TBD		yes	
Sub-Total					\$27,054				
Notes: TBD - To be determined when Calaveras County Supervisors adopt a county-wide mitigation fee program.									
Local - May include funds from Road Impact Mitigation Program-RIM); STIP - State Transportation Improvement Program; IIP - Interregional Improvement Program									

Table 22 Continued									
Calaveras County									
Long-Range Capital Improvement Program (11 - 20 Years)									
State Highway/County Road Projects									
Priority	Funding Source	Caltrans Project Number	Route	Description	Estimated 2001 Cost (\$1,000s)	Construction year	Purpose/Need		
							Congestion Relief	Safety Improvement	Multi-Modal Improvement
	Local		Railroad Flat Rd.	Upgrade to minimum standard - Full section from Lickling Fork Br. to Blizzard Mine Rd.	\$1,017	TBD		yes	
	Local		Blue Mountain Rd.	Upgrade to minimum standards - 24 foot section for 1.5 miles.	\$522	TBD		yes	
	Local		Pennsylvania Gulch Rd.	Upgrade to minimum standards - 24 foot section (4.3 miles)	\$1,481	TBD		yes	
	Local		Six Mile Rd.	Upgrade to minimum standards - 24 foot section (1.0 mile)	\$348	TBD		yes	
	Local		Southworth Rd.	Upgrade to minimum standards - Full length	\$2,231	TBD		yes	
	HBRR/Local		Calaveritas Rd.	Bridge replacement over Calaveritas Creek (Bridge #30C-24)	\$115	TBD		yes	
	Local		Hogan Dam Rd.	Upgrade to minimum standards	\$1,470	TBD		yes	
	Local		Hogan Dam Rd.	Upgrade to minimum standards	\$3,532	TBD		yes	
	Local		East Murray Creek	Upgrade 24-foot section (2.39 mi.)	\$843	TBD		yes	
	Local		Whiskey Slide Rd.	Upgrade 24-foot section (4.9 mi.)	\$1,705	TBD		yes	
	Local		French Gulch Rd.	Upgrade 24-foot section (0.53 mi.)	\$185	TBD		yes	
	Local		Olive Orchard Rd.	Upgrade full length	\$1,068	TBD		yes	
	Local		Ospital Rd.	Upgrade full length	\$1,132	TBD		yes	
	HBRR/Local		Warren Rd. - Bridge replacement	Over Warren Creek (Bridge #30C-67)	\$604	TBD		yes	
Sub-Total					\$16,253				

Table 22 Continued

Calaveras County

Long-Range Capital Improvement Program (11 - 20 Years)

State Highway/County Road Projects

Priority	Funding Source	Caltrans Project Number	Route	Description	Estimate 2001 Cost (\$1,000s)	Construction year	Purpose/Need		
							Congestion Relief	Safety Improvement	Multi-Modal Improvement
	Local		Sheep Ranch Rd.	Upgrade to 24-foot section (3.5 miles)	\$1,219	TBD		yes	
	Local		Sheep Ranch Rd.	Upgrade to 24-foot section (9.9 miles)	\$3,447	TBD		yes	
	Local		Paloma Rd.	Reconstruct road from SR 26 to Rose St. (7.9 miles)	\$955	TBD	yes	yes	
	Local		Paloma Rd.	Upgrade full length	\$3,716	TBD		yes	
	Local		Jesus Maria Rd.	Reconstruct roadway SR 26 to Railroad Flat Rd. (12.9 miles)	\$3,906	TBD	yes	yes	
	Local		Bald Mountain Rd.	Upgrade to 24-foot section (1.5 miles)	\$757	TBD		yes	
	Local		Hunt Rd.	Upgrade to 24-foot section (14.5 miles)	\$2,671	TBD		yes	
	Local		Rock Creek Rd.	Upgrade to 24-foot section (14.4 miles)	\$2,650	TBD		yes	
	Local		Campo Seco Rd.	Reconstruct roadway Camanche Pkwy (south) to Paloma Rd. (4.1 miles)	\$265	TBD	yes	yes	
	Local		Dogtown Rd.	Upgrade to 24-foot section (1.1 miles)	\$202	TBD		yes	
	Local		Dogtown Rd.	Upgrade to minimum standards Lakeside Dr. to San Domingo Cr. Bridge	\$460	TBD		yes	
	Local		Swiss Ranch Rd.	Upgrade to 24-foot section (1.0 mile)	\$468	TBD		yes	
	Local		Avery Sheep Ranch Rd.	Reconstruct roadway SR 4 to Sheep Ranch Rd. (4.75 miles)	\$2,222	TBD	yes	yes	
	Local		Fullen Rd.	Upgrade to 24-foot section (3.1 miles)	\$929	TBD		yes	
	Local		Doster Rd.	Upgrade to 24-foot section (1.0 mile)	\$349	TBD		yes	
Sub-Total					\$18,595				
Total Long-Range County Projects					\$67,523				
Notes:									
Local - May include funding from Road Impact Mitigation Program-RIM									

Table 23									
City of Angels									
Long-Range Capital Improvement Program (11 - 20 Years)									
Road Projects									
Priority	Funding Source	Caltrans Project Number	Route	Description	Estimated 2001 Cost (\$1,000s)	Construction year	Purpose/Need		
							Congestion Relief	Safety Improvement	Multi-Modal Improvement
1	Local		New Roadway	Gold Cliff to Greenhorn Cr. Rd.	\$450	TBD	yes		yes
2	Local		Kurt Drive	Extend Kurt Drive to Murphys Grade Rd.	\$6,000	TBD	yes		
3	Local		Bennett Street	Extend Bennett Street through to the North as development necessitates	\$400	TBD	yes		
4	HES/Local		SR49/Murphys Grade Road	Reconstruct intersection	\$355	TBD	yes	yes	yes
Partial Total					\$7,205				
Notes:									
Local - May include Road Impact Mitigation Program (RIM) funds; HES - Hazard Elimination and Safety									

SHORT-RANGE AND LONG-RANGE HIGHWAY PRIORITIES

As shown in the tables, each of the highway improvement needs were categorized into short-range (0 to 10 years) and long-range (11 to 20 years) in the tables above. Major improvements on the State Highway System are included in the State and County lists, while local road projects are summarized for Calaveras County and Angels Camp. The State highway list is further stratified into those requiring STIP funds and those requiring SHOPP or Minor funds.

SHORT-RANGE STIP PROJECTS – STATE HIGHWAY SYSTEM

Table 16 lists the STIP funded short-range capital improvement projects and their costs for State highways in Calaveras County. The list includes the construction of the North Angels Bypass and eastbound passing lanes on SR 4 near Black Springs. These two projects are partially funded. In addition, the Wagon Trail expressway and the Valley Springs Bypass are proposed for construction in the short-range. Four medium priority projects that provide both congestion relief and safety improvements are proposed by the County for construction over the next 10 years. Other short-range improvement projects for the State Highway System may be funded through the Caltrans SHOPP and “Minor” programs.

DEVELOPMENT INITIATED STATE HIGHWAY IMPROVEMENTS

Traffic generated by new development in Calaveras County may impact the existing or future LOS on a State highway depending on the availability of access to the highway. Consistent with Goal 6, Objective (a), a developer should be required to make project specific improvements in order to maintain acceptable highway LOS at the project’s connection with the State highway. Project specific improvements include left turn lanes, acceleration/deceleration lanes, adequate encroachment width, on-site storage distance, traffic signals, changes in roadway width, alignments, passing and/or auxiliary lanes, and additional right-of-way.

SHORT-RANGE SHOPP PROJECTS - STATE HIGHWAY SYSTEM

Although Caltrans is responsible for the SHOPP program, the County has input into those projects that are programmed for SHOPP funding (i.e., rehabilitation, operational and safety projects). Table 17 lists the short-range SHOPP projects that are already programmed by Caltrans, plus two projects proposed by the County for inclusion in the short-range Caltrans candidate lists. These projects include the realignment of SR 26 at Burson Road and the realignment of SR 26 at Silver Rapids Road. Both projects provide much-needed safety improvements on SR 26. *Note: The short-range Candidate List of non-programmed SHOPP and Minor projects for Caltrans District 10 was not available when Table 17 was compiled. When it becomes available, the projects for Calaveras County will be included.*

SHORT-RANGE COUNTY AND CITY OF ANGELS ROAD IMPROVEMENTS

Important Calaveras County and City of Angels short-range roadway and bridge projects are listed in Tables 18 and 19. The three County bridge replacement projects on Pool Station Road are considered a

high priority for safety reasons. The remainder of the County short-range projects focus on upgrading existing roads to County minimum standards. The City of Angels projects in Table 19 include one proposed County intersection project (SR4 Bypass) that is recommended by the City to facilitate operation of the SR 49 Bypass (West Angels Bypass). The remaining projects focus on safety and operational improvements to improve circulation in the City.

LONG-RANGE STIP AND COUNTY ROAD IMPROVEMENTS

Long-range planning projects for state highways are identified through the Caltrans System Planning Process. This process involves an analysis of projected deficiencies and needed improvements to resolve those deficiencies for each state route. The County has proposed three projects for STIP long-range funding, which are included in Table 20. These projects propose improvements to SR 49, SR 26, and SR 4. The remaining County projects focus on safety by upgrading local roads to County minimum standards. These projects are listed in Table 22. *Note: At the present time, the list of long-range Caltrans STIP projects (Table 20) and SHOPP projects (Table 21) for District 10 is not available. When the information is available, it will be incorporated into this RTP.*

LONG-RANGE CITY OF ANGELS ROAD IMPROVEMENT PROGRAM

The City of Angels long-range road improvement priorities are listed in Table 23. The projects include a new roadway, two road extensions, and an intersection reconstruction.

OPERATIONAL BENEFITS RESULTING FROM THE RTP IMPROVEMENTS

Benefits to the regional circulation system after implementation of the RTP improvements include improved level of service and safety on State and County roads. If all of the projects listed in the tables above are implemented, the regional roadway facilities in Calaveras County will operate at acceptable levels under 2022 conditions based on average daily traffic.

GOODS MOVEMENT

Truck transport will continue to be the primary method of goods movement into, within and out of Calaveras County. Cooperative efforts are needed between the trucking industry, Calaveras County, and Caltrans to assess the impacts that trucks have on the roadway network and to create regulatory guidelines for truck travel in the County, such as specific truck routes. This effort should also be coordinated with the County's pavement management program. Even with the limited roadway network in the County, trucks should not be permitted on facilities not designed or constructed for heavy vehicles.

PUBLIC TRANSIT

Calaveras Transit currently provides local service within the County. Proposed improvements to the system include replacing buses to maintain an adequate operating fleet and installing bus shelters and bus turnouts to improve overall safety and convenience. Transit ridership has increased dramatically since Calaveras Transit became operational in 1999. Transit service expansion will be considered as funding and transit demand dictate.

SHORT-RANGE AND LONG-RANGE PROGRAMS AND IMPLEMENTATION

Table 24 shows the planned improvements for the Calaveras Transit, which includes expansion or replacement of the existing vehicle fleet and construction of bus stop shelters and turnouts. Decisions regarding the purchase of new equipment, the expansion of service, and/or the construction of new facilities, are made by the County. This agency has adopted goals, objectives, and policies that are intended to guide public transportation services in Calaveras County, both now and in the future (See Policy Element in Chapter III of this document).

BIKEWAYS AND PEDESTRIAN FACILITIES

Detailed action programs for bicycle and pedestrian facilities are focused on improving existing roadways to include on-street bikeways or constructing separate paths to safely accommodate existing and future demand.

Table 25 lists the short-range and long-range bicycle and pedestrian improvements that should be implemented in Calaveras County as part of the 2001 RTP. The County's Class III projects are proposed for funding from three sources: Transportation Enhancement Activities (TEA), Local Funds, which may include the County's Road Improvement/Mitigation Program, and the Bicycle Transportation Act (BTA).

Table 26 contains the short-range and long-range bicycle and pedestrian improvements for the City of Angels. The City's projects involve both on-street and off-street facilities, including a pedestrian way along SR 49. Funding for the projects are proposed from TEA, BTA, and Local (possibly RIM funds).

Table 24									
Calaveras County									
Short-Range and Long-Range Transit System Capital Improvements									
Priority	Funding Source	Project Number	Location	Description	Estimated 2001 Cost (\$1,000s)	Construction Year	Purpose/Need		
							Congestion Relief	Safety Improvement	Multi-Modal Improvement
1	STIP		Calaveras Transit	Replace two transit vehicles	\$200	0-10			yes
2	STIP		Calaveras Transit	Replace four transit vehicles	\$400	11-20			yes
3	LTF/STIP		Various locations	Install bus shelters and turnouts	\$100	0-10		yes	yes
Total					\$700				
Notes:									
STIP - State Transportation Improvement Program; LTF - Local Transportation Fund									

Table 25									
Calaveras County									
Short-Range and Long-Range Bicycle and Pedestrian Capital Improvement Program									
Priority	Funding Source	Project Number	Route	Description	Estimated 2001 Cost (\$1,000s)	Construction Year	Purpose/Need		
							Congestion Relief	Safety Improvement	Multi-Modal Improvement
	TEA/BTA/Local		SR 26	Construct Class III bike route from Hogan Dam Rd. to Vista Del Lago (2.0 miles)	\$620	TBD		yes	yes
	TEA/BTA/Local		Algiers Street/ SR 4	Construct Class III bike route loop connecting to SR 4 (.5 miles)	\$148	TBD		yes	yes
	TEA/BTA/Local		Jenny Lind Rd./Baldwin St.	Construct Class III bike route between SR 26 and Milton Rd. (1.7 miles)	\$494	TBD		yes	yes
Total					\$1,262				
Notes:									
Local - May include Road Impact Mitigation Program funding; TEA - Transportation Enhancement Activities; BTA - Bicycle Transportation Act									

Table 26									
City of Angels									
Short-Range and Long-Range Bicycle and Pedestrian Capital Improvement Program									
Priority	Funding Source	Project Number	Route	Description	Estimated 2001 Cost (\$1,000s)	Construction Year	Purpose/Need		
							Congestion Relief	Safety Improvement	Multi-Modal Improvement
1	TEA/BTA		San Joaquin Ave. to SR 49	Bicycle lane and pedestrian facilities on Stanislaus Lane	\$246	0-10		yes	yes
2	TEA/BTA		SR 4 - 21.42	Construct Class III Bikeway from Tryon Park to Booster Way	\$118	0-10		yes	yes
3	TEA/BTA		SR 49 South	Construct 400-foot long pedestrian way from southerly intersection	\$115	0-10		yes	yes
1	BTA/Local		Finnegan Lane	Construct Angels Camp Bikeway at Angels Cr.	\$208	11-20		yes	yes
2	BTA/Local		SR 49	Rehabilitate old rock walkway and upgrade existing walkway on SR 49 from Angels Cr. To Centennial Way	\$414	11-20		yes	yes
3	BTA/Local		Finnegan Lane	From Spreadboroughs south to future pump house - widen roadway; construct rock wall for flood control; install two-way traffic and parking; construct foot-bridge over creek; and restore old Mill.	\$443	11-20		yes	yes
4	BTA/Local		Altaville School	Construct 260 s.f. of public restroom facilities and 5,000 s.f. of landscaping	\$100	11-20			yes
Total					\$1,644				
Notes:									
Local - May include Road Impact Mitigation Program funds; BTA - Bicycle Transportation Act; TEA - Transportation Enhancement Activities									

AVIATION

As described in the Chapter II, the short-range needs of the Calaveras Municipal Airport include improvements to the water system and technological improvements to monitor landings. The long-range improvements focus on expansion of the existing runway and purchasing additional right-of-way. The proposed improvements will enable the airport to accommodate projected aircraft operation demand through 2022. The short-range and long-range airport projects shown in Table 27 are part of the Airport Capital Improvement Program designed to maintain and upgrade facilities in Calaveras County.

TRANSPORTATION DEMAND MANAGEMENT (TDM)/TRANSPORTATION SYSTEM MANAGEMENT (TSM)

As a result of recommendations contained in the recent Calaveras County Transportation Demand Management Feasibility Study, the COG will be investigating the initiation of a regional rideshare program countywide.

INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

ITS is the integration of computerized, electronic, and communication technologies designed to reduce traffic congestion, improve traveler mobility, collect and disseminate real-time traveler information, reduce costs, and improve the operation and efficiency of the transportation network by integrating both technological components and management strategies to improve circulation. Implementation of ITS, with its emphasis on improving traveler mobility, has become a priority for the federal government and the U.S. Department of Transportation. As part of this effort, a National ITS Architecture has been adopted to encourage system interoperability and integration among local, regional, state and federal ITS applications.

The key elements of ITS identified for rural areas are:

- Traveler safety and security technologies,
- Emergency services,
- Fleet operations and maintenance,
- Public traveler and mobility services,
- Roadway operations and maintenance technologies,
- Tourism and travel information, and
- Commercial vehicle systems.

Table 27									
Calaveras County									
Short-Range and Long-Range Aviation System Capital Improvements									
Priority*	Funding Source	Project Number	Location	Description	Estimated 2001 Cost (\$1,000s)	Construction Year	Purpose/Need		
							Congestion Relief	Safety Improvement	Multi-Modal Improvement
	FAA		Maury Rasmussen Field	Reseal ramp and auto parking area.	\$120	02		yes	yes
	FAA		Maury Rasmussen Field	Water system improvement Phase II - 100,000 gallon tank	\$220	02			yes
	FAA		Maury Rasmussen Field	Install Visual Approach Slope Indicator (VASI) on Runway 13	\$30	04		yes	yes
	FAA		Maury Rasmussen Field	Extend runway 600 feet to 4,200 feet.	\$570	04		yes	yes
	FAA		Maury Rasmussen Field	Construct maintenance access road to north end of airport.	\$200	02			yes
	FAA		Maury Rasmussen Field	Purchase 88 acres of land NW side of airport.	\$18	05			yes
Total					\$1,158				
Notes: Priorities established in State Aviation Plan									
FAA - Federal Aviation Administration									

In California, Caltrans' New Technology and Research Program has led an effort to develop Strategic Deployment Plans for a number of regions (combined counties) throughout the State. One of these regions, the Sierra Nevada region, includes Amador as well as Alpine, Calaveras, Tuolumne, Mariposa, Inyo, and Mono Counties. In November 1999, Caltrans hired a consultant to work with the counties in developing the Sierra Nevada ITS Strategic Deployment Plan. Possible specific ITS applications that have been suggested by counties participating in the Sierra Nevada ITS strategy that can be seriously considered for funding within the context of the Sierra Nevada ITS plan and Calaveras County 2001 RTP Update include the following:

1. Light emitting diode (LED) pedestrian crossings;
2. Advance snow plow advisory systems (magnetic markers installed in the roadway to provide guidance in whiteout conditions);
3. Mobile changeable signs;
4. Electronic tourist traveler information stations;
5. Call boxes in most hazardous areas and/or radio/cell phone dead areas;
6. Coordinated emergency response systems;
7. Coordinated local transit agency communications systems;
8. Statewide rural regional road conditions radio stations;
9. Trucks and large recreational vehicle advisory signs/signals; and
10. Electronic toll stations/fee collection

The list above does not necessarily match the list of projects submitted as priorities of the Sierra Nevada ITS team. They are, instead, the list of possible ITS projects worthy of further consideration by Calaveras County within the context of its RTP Update.

V. FINANCIAL ELEMENT

The purpose of the Financial Element is to provide a summary of the projected costs of transportation facilities listed in the RTP and the revenue sources required to fund those facilities. This section includes a summary of the costs to implement programs discussed in the Action Element (Chapter IV) and a discussion of the potential revenue available to fund them (refer to Appendix D for a detailed summary of funding sources, and Appendix E for TEA-21 Fact Sheets of each funding program). Surpluses and deficits resulting from the difference in projected revenues and planned expenditures are identified, along with the ramifications of implementing only those improvements that have secure funding. Finally, alternative sources of funding are recommended and a summary of potential funding strategies is presented.

COST SUMMARY

Table 28 contains a summary of the RTP improvement costs identified for the roadway, public transit, bicycle and pedestrian, and aviation components of the Calaveras County transportation system. Approximately \$111,500,000 of candidate SHOPP projects from Table 17 are included in the roadway total. The amount of available SHOPP funding to construct these projects is not known at the present.

Transportation System Component	Short-Range Improvement Cost	Long-Range Improvement Cost	Total Cost
Roadway(includes SHOPP)	\$212,201	\$82,520	\$294,721
Public Transit	\$300	\$400	\$700
Bicycle and Pedestrian	\$479	\$2,427	\$2,906
Aviation	\$1,158	\$0	\$1,158
Total	\$214,138	\$85,347	\$299,485

EXPECTED REVENUES

During the development of the RTP, it is important to make reasonable estimates of expected revenues during the 20-year life of the Plan. Table 29 provides a summary of the expected revenues from federal, state, and local sources over the 20-year life of the RTP.

Table 29 Summary of 2022 Regional Transportation Plan Revenues for Calaveras County	
Revenue Category	Revenue
Regional Transportation Improvement Program (RTIP) ¹	\$59,500,000
Regional Surface Transportation Program (RSTP) ²	\$7,460,000
State Highways Operations and Projection Program (SHOPP) ³	\$25,000,000
Local Transportation Fund (LTF) - 1/4 cents sales tax for Transit ⁴	\$7,000,000
Local Transportation Fund (LTF) - 2% allocation to Bike/Pedestrian Account	\$234,000
State Transit Assistance (STA)	\$2,230,000
Federal Hazard Elimination and Safety Program (HES)	TBD
Highway Bridge Replacement and Rehabilitation Program (HBRR)	\$2,445,000
Discretionary Grant Funding	TBD
Total Anticipated Revenues from Existing Sources	\$103,869,000
Notes:	
¹ Based on 10-year estimate of 32.1 million and inflated 3% every two years to 2022.	
² Based on 2000/2001 Net apportionment of \$373,000 expanded over 20 years.	
³ Assumes continuation of average past funding of \$1,250,000 per year for 20 years.	
⁴ Due to rising transit contract costs, none of these funds have been assumed to be available for roadway improvement funding.	
Source: Calaveras Council of Governments; Caltrans; Fehr & Peers Associates, Inc. 2001	

COMPARISON OF ROADWAY IMPROVEMENT COSTS TO EXPECTED REVENUES

Table 30 compares the expected costs of roadway improvements to the expected revenues. This table shows a shortfall of approximately \$109 million is projected to occur during the 20-year planning period. This shortfall may not be realized depending on the availability of state funding and federal funding. The assumption that approximately \$60 million will be available in RTIP funds over the next 20-years is conservative. The 2000 STIP allocation for Calaveras County is approximately 3 million with an additional \$9 million expected in the 2002 STIP. Also, the revenue projections assume no ITIP funding through Caltrans and does not include any revenues from the RIM program.

Table 30					
Roadway Improvement Projects Summary of Costs and Revenues					
(\$1,000s of 2001 Dollars)					
Inprovement Projects	Short-Range Costs	Long-Range Costs	Total Costs	Estimated Funding	Surplus/ (Deficit)
STIP Funded Highway Projects	\$77,623	\$14,642	\$92,265	\$59,500	-\$32,765
SHOPP/MINOR Funded Projects	\$111,474	\$0	\$111,474	\$25,000	-\$86,474
HBRR Projects	\$1,726	\$719	\$2,445	\$2,445	\$0
Hazard Elimination and Safety (HES) Projects	\$12,056	\$355	\$12,411	TBD	TBD
Local County and City Projects	\$9,322	\$66,804	\$76,126	TBD	TBD
Total	\$212,201	\$82,520	\$294,721	\$86,945	-\$207,776

Notes: SHOPP total includes \$94 million in candidate projects over the next 10 years
Assumes continuation of average past SHOPP expenditures of \$1,250,000 per year.

COMPARISON OF TRANSIT COSTS AND REVENUES

Table 31 summarizes the expected costs and revenues for transit capital improvements. No funding deficit is anticipated.

Table 31					
Summary of Costs and Revenues for Transit Projects					
(\$1,000s of 2001 Dollars)					
Transit Improvements	Short-Range Costs	Long-Range Costs	Total Costs	Revenues	Surplus/ (Deficit)
All Projects	\$200	\$500	\$700	\$700	\$0

Notes:
Based on STIP and LTF funding

COMPARISON OF BIKEWAY AND PEDESTRIAN COSTS AND REVENUES

Table 32 summarizes the expected costs and revenues for bikeway and pedestrian capital improvements. The known revenue source for bike and pedestrian projects is the 2 percent set aside of LTF funds. Additional competitive sources may include Bicycle Transportation Act funding. This source has been increased to approximately \$5 million dollars a year statewide beginning in 2003. As mentioned previously, the completion of the 1998 BMP will assist the County in securing BTA funds for high priority bike and pedestrian projects. This will help reduce the overall shortfall.

Table 32					
Summary of Costs and Revenues for Bike and Pedestrian Projects					
(\$1,000s of 2001 Dollars)					
Improvements	Short-Range Costs	Long-Range Costs	Total Costs	Revenues	Surplus/ (Deficit)
All Projects	\$479	\$2,427	\$2,906	\$234	-\$2,672
Notes:					
Does not include potential competitive grant funding.					

COMPARISON OF AVIATION COSTS AND REVENUES

Table 33 summarizes the expected costs and revenues for aviation projects. The current sources of aviation funding are the Federal Airport Improvement Program (AIP) administered by the FAA, and the State of California Aid to Airports Program (CAAP). Successful competition for these competitive grants may reduce the shortfall to zero.

Table 33					
Summary of Costs and Revenues for Aviation Projects					
(\$1,000s of 2001 Dollars)					
Transit Improvements	Short-Range Costs	Long-Range Costs	Total Costs	Anticipated Revenues	Surplus/ (Deficit)
All Projects	\$1,158	\$0	\$1,158	\$1,158	\$0
Notes:					
Based on anticipated AIP and CAAP funding					

FUNDING STRATEGY

The 2001 RTP for Calaveras County identifies key short-term (0-10 years) and long-term (11-20 years) roadway improvements for the County’s regional road system. Funding sources for these projects come from various sources including STIP, SHOPP and local funding. The RTP also identifies a series of multi-modal projects and programs such as transit improvements, bicycle improvements, and pedestrian improvements. However, none of the improvements address one of the most critical needs of Calaveras County during the next several years. That need is County road maintenance.

Recognizing that transportation funds are limited in spite of the increases brought about by TEA-21, and SB-45, the following funding issues remain important to Calaveras County.

How should limited transportation funds be prioritized to meet the needs of motorists, transit riders, commerce, bicyclists, pedestrians and visitors over the next 20 years?

Which specific transportation improvement projects and/or programs should be funded with regional dollars?

What type of funding strategy should Calaveras County adopt to provide the needed transportation improvements to its transportation system?

RTP LINKAGES

To help answer the above questions, the RTP Guidelines require that the RTP show linkages to the STIP, RTIP and ITIP. In addition, proposed projects in the RTP must address purpose and need and be selected and prioritized with the help of program level performance measures. To show these links, the Calaveras 2001 RTP provides the following information:

- Performance measures in the RTP (Table 15) reference specific goals and objectives from the Policy Element (Chapter III).
- Project tables in the Action Element (Tables 16 through 27) include a qualitative assessment designating whether the project provides congestion relief, a safety improvement, and/or multi-modal benefits. These categories are included to help identify the purpose and need for the project.
- The Financial Element includes a cost effectiveness measure (cost per new trip served) for projects proposed on State highways (Table 34 below).

POTENTIAL FUNDING STRATEGIES

Potential funding strategies are described below. The first three strategies focus on prioritizing projects based on projected funding revenues while the four strategy outlines options for increase local revenues.

STRATEGY 1 - PRIMARY FOCUS ON STATE HIGHWAYS

This approach would channel the majority of revenues to State highway projects and target those areas that show the greatest deficiencies. The deficiencies are identified through the analysis of level of service (Table 9), accident rates (Table 11) and other performance measures (Table 14). Projects would be prioritized by the Calaveras COG, in cooperation with Caltrans and the City of Angels.

STRATEGY 2 - BALANCE SPENDING ON STATE HIGHWAYS AND LOCAL ROADS

This approach would consider needed capacity, safety and/or rehabilitation improvements on local streets and roads of regional significance, in addition to critical State highway projects. Improvements would be based on the purpose and need assessment from the Action Element as well as the cost effectiveness calculations identified in the Financial Element.

STRATEGY 3 – MULTI-MODAL EMPHASIS

In addition to highways and roads, this approach would channel some funds into multi-modal improvements including transit, bicycle and pedestrian facilities. Opportunities for implementing

congestion reducing TSM and TDM strategies would take a higher priority in concert with capacity increasing measures. Although investment in multi-modal projects does provide increased air quality benefits, their effectiveness in reducing automobile trips through mode shifting can be somewhat limited in rural areas. The type and extent of investment would have to be weighed against these limitations.

STRATEGY 4 - INCREASE LOCAL REVENUE

Elimination of the projected funding shortfalls without reduction in the list of improvement projects will require new revenue sources. Calaveras County has recognized this potential problem and is currently developing the road improvement mitigation (RIM) program to create a traffic impact fee. The following steps have been completed:

- State highway and County roadway improvements were identified based on LOS deficiencies for inclusion in the fee program,
- Cost estimates for each improvement were developed,,
- Alternative strategies for requiring new development to mitigate traffic impacts were analyzed,
- A comparison was made of development fees in surrounding jurisdictions,
- Alternative sources of funding in addition to the fee program were estimated,
- A determination was made as to the “fair share” contribution by new development, and
- A recommended road mitigation fee level and fee program structure was developed.

The RIM program has undergone several iterations of analysis and alternatives development. The County is reviewing the program and considering it for possible adoption. If adopted, the program will be used to fund various transportation improvements throughout the County. However, the RIM program alone is not likely to generate sufficient funding to eliminate the funding shortfalls identified above. Other funding sources such as a local sales tax measure would be required to provide sufficient funding.

SUPPORT ACTIONS TO MAXIMIZE LIMITED FUNDS

No matter what funding strategy is ultimately selected, the following actions are recommended to help maximize the use of limited transportation funds:

- Use STIP funds in the most congested areas on State highways and regionally significant county roads. The COG should implement the highest priority projects from the Action Element based on purpose and need, the performance measure assessment for each project, and the cost effectiveness calculation from the Financial Element.
- Continue the three County MOU. This approach has provided additional funding for critical projects for each County through trade-offs and exchange. It is recommended that the MOU process continue.
- Aggressively pursue Discretionary and Grant-based Funding Programs. The COG should pursue funding through all discretionary and grant-based programs referenced in the Financial Element.
- Development of New Local Revenue Source for County Road Maintenance. The COG should consider the various options outlined in the RTP for creating a more stable source of local funding for road maintenance. The COG and County should lobby the CTC for a new source of maintenance

funding to help replace the lost funds from timber receipts.

- SHOPP Partnerships. The COG and County should partner with Caltrans, wherever possible, to attract additional SHOPP projects in the County.
- Cost-Effectiveness Consideration. Decision makers should consider the cost-effectiveness of improvement projects when establishing implementation priorities. Cost effectiveness was listed as one of the key performance measures in Table 14. The measure (for roadway improvements) is calculated by dividing the estimated construction cost of a project by the difference in current and future average daily traffic (ADT) volume on the affected road segment. For informational purposes, this measure was applied to the State highway improvement projects contained in this RTP. The results are summarized in Table 34.

Table 34				
State Highway Improvement Cost Effectiveness Summary				
Improvement	Cost (1,000s of 2001 Dollars)	ADT		Cost Effectiveness (Cost per New Trip)
		Existing	2022	
State Highways				
4 - In Angels Camp, north of junction Route 49 to east of Roller Road - construct 2-lane expressway (North Angels Bypass)	\$31,400	13,000	23,000	\$3,140
4 - Near Arnold - west of Black Springs - construct passing lane (eastbound)	\$2,783	1,600	3,000	\$1,988
4 - Wagon Trail- from 2.1 miles east of O'Brynes Ferry Rd./Rock Creek Rd. To 2.0 miles west of SR 49 construct 2-lane expressway (Phase 1 & 2) - PSR completed	\$27,000	3,900	9,000	\$5,294
12 - Near Valley Springs, from 1.3 miles west to 1.3 miles east of West Jct. SR 26 construct 2-lane arterial on new alignment (Valley Springs)	\$10,000	7,500	11,600	\$2,439
12 - Construct two-way center left-turn lane from Burson Rd. to the El Pagagallo Restaurant	\$1,150	5,300	11,000	\$202
12 - Improve sight distance at the SR 12 /Pettinger Rd. intersection	\$690	6,600	10,600	\$173
26 - Realignment at Hogan Dam Road	\$1,150	8,800	10,400	\$719
4 - From Angels Bypass to Murphys - construct passing lanes	\$3,450	5,200	15,400	\$338
4 - Near Altaville - 2.4 miles east of O'Brynes Ferry Road - realign curve (Safety)	\$1,745	3,600	9,000	\$323
26 - Valley Springs - Silver Rapids Road - realign existing curve (Safety)	\$4,076	3,600	10,600	\$725
12 - Near Wallace - east of Southworth Road to Route 26 (Rehabilitation)	\$6,451	4,200	8,100	\$1,654
4 - Near Murphys and Sonora - on Route 4 and at Soulsbyville Rd. - construct two sand storage facilities (Operations)	<i>Not Applicable</i>			
49 - Widen and add passing lanes from 0.4 miles north of Cherokee Creek Br. To 0.1 miles north of Angels Rd.	\$11,242	8,600	22,300	\$821
26 - Install left turn lane at Garner Place	\$1,000	3,600	10,600	\$143
4 - Construct passing lanes from the Stanislaus Co. line to west of Reeds Turnpike	\$2,400	4,200	8,100	\$615

VI. ENVIRONMENTAL REVIEW AND CHECKLIST

APPENDIX A

ROUTE SEGMENT DATA

Table A-1 in Appendix A provides a description of State highway segment data for Calaveras County. The table includes route number, post mile location of the segment, facility type, general terrain, grade, average lane width, average shoulder width, and percentage of annual daily traffic (AADT) that is attributed to trucks. The information on road segment data was compiled from the *Caltrans 1997 Route Segment Report*, the *1997 California State Highway Log for District 10*, *Caltrans 1999 Traffic Volumes on State Highways*, *Caltrans 1998 Truck Volumes on State Highways*, past information from the 1996 Calaveras County RTP, and a field survey by Fehr & Peers' staff. This data was used to develop Level of Service (LOS) thresholds for the regional road system.

Table A-1

Calaveras County State Highway Segment Data

Route	Post Mile	Route Segment		Functional Classification	Facility Type	General Terrain	Grade	1999 ADT	1999 Pk. No. ADT	Percent Trucks	
SR 4	0.00		Stanislaus/Calaveras Co. Line	Minor Arterial	2E	Rolling	Rolling	4,200	5,000	4.5%	
SR 4	0.00	8.14	Reeds Turnpike	O'Byrnes Ferry Road	Minor Arterial	2C	Mountainous	Moderate	3,900	4,400	4.5%
SR 4	8.14	21.09	O'Byrnes Ferry Road	W. Jct. Rte. 49	Minor Arterial	2C	Mountainous	Moderate	3,600	4,100	3.8%
SR 4	21.09	21.38	W. Jct. Rte. 49	E. Jct. Rte. 49	Minor Arterial	2C	Mountainous	Moderate	5,500	6,600	6.3%
SR 4	21.38	22.23	E. Jct. Rte. 49	Rolleri Bypass Road	Minor Arterial	2C	Mountainous	Moderate	5,200	6,200	6.3%
SR 4	22.23	29.38	Rolleri Bypass Road	E. of Murphys	Minor Arterial	2C	Rolling	Rolling	7,300	8,800	6.6%
SR 4	29.38	42.62	Murphys	Moran Rd. East Junction	Minor Arterial	2C	Rolling	Rolling	5,600	7,000	6.6%
SR 4	42.62	47.14	Moran Rd.	Dorrington	Minor Arterial	2C	Rolling	Rolling	3,000	4,300	5.2%
SR 4	47.14	49.57	Dorrington	Meko Drive	Minor Arterial	2C	Mountainous	Moderate	1,600	2,350	8.3%
SR 4	49.57	65.87	Meko Drive	Calaveras/Alpine Co. Line	Minor Arterial	2E	Mountainous	Moderate	1,200	1,800	4.7%
SR 12	0.00	6.30	San Joaquin/Calaveras Co. Line	Burson Road	Minor Arterial	2C	Rolling	Moderate	6,600	7,100	7.2%
SR 12	6.30	9.78	Burson Road	Valley Springs, Pine Street	Minor Arterial	2C	Rolling	Moderate	5,300	5,800	6.0%
SR 12	9.78	9.93	Valley Springs, Pine Street	Jct. Rte. 26 South	Minor Arterial	2C	Rolling	Moderate	7,500	8,400	6.8%
SR 12	9.93	18.20	Jct. Rte. 26 South	San Andreas, Jct. Rte. 49	Minor Arterial	2C	Rolling	Moderate	5,900	6,300	6.0%
SR 26	0.00		Calaveras/San Joaquin Co. Line		Minor Arterial	2C	Rolling	Rolling	3,800	4,000	4.3%
SR 26	0.00	4.38	County Line	Jenny Lind Road	Minor Arterial	2C	Rolling	Rolling	3,600	3,800	5.0%
SR 26	4.38	9.86	Jenny Lind Road	Hogan Dam Road	Minor Arterial	2C	Mountainous	Moderate	8,800	9,900	4.6%
SR 26	9.86	10.30	Hogan Dam Road	W. Jct. 12	Minor Arterial	2C	Mountainous	Moderate	9,900	11,100	6.0%
SR 26	10.30	18.07	W. Jct. 12	Mokelumne Hill, Jct. Rte. 49	Minor Arterial	2C	Mountainous	Moderate	1,400	1,500	6.0%
SR 26	18.07	26.80	Mokelumne Hill, Jct. Rte. 49	Ridge Road	Minor Arterial	2C	Mountainous	Moderate	1,200	1,300	5.5%
SR 26	26.80	38.33	Ridge Road	Calaveras/Amador Co. Line	Minor Arterial	2C	Mountainous	Moderate	2,300	2,500	5.5%
SR 49	0.00		Calaveras/Tuolumne Co. Line		Minor Arterial	2C	Mountainous	Rolling	5,200	5,700	5.0%
SR 49	0.00	7.21	Tuolumne Co. Line	Angeles Camp, South Jct. Rte. 4	Minor Arterial	2C	Mountainous	Rolling	8,600	10,200	4.4%
SR 49	7.21	8.33	Angeles Camp, South Jct. 4	Angels Camp, Murphys Grade Road	Minor Arterial	2C	Mountainous	Rolling	13,000	14,700	6.1%
SR 49	8.33	8.67	Angeles Camp, Murphys Grade Rd	Angels Camp, N. Jct. Rte. 4	Minor Arterial	2C	Mountainous	Moderate	11,300	12,900	7.2%
SR 49	8.67	9.42	Angels Camp, N. Jct. Rte. 4	North Angels Camp, Copello Dr.	Minor Arterial	2C	Mountainous	Moderate	7,500	8,600	6.8%
SR 49	9.42	14.2	North Angels Camp, Copello Dr.	Fricot Road	Minor Arterial	2C	Mountainous	Moderate	6,300	7,300	6.0%
SR 49	14.2	19.41	Fricot Road	San Andreas, Main Street	Minor Arterial	2C	Mountainous	Moderate	12,200	13,100	6.0%
SR 49	19.41	20.5	San Andreas, Main Street	Jct. Rte. 12 West	Minor Arterial	2C	Rolling	Rolling	10,500	11,400	6.0%
SR 49	20.5	22.21	Jct. Rte. 12 West	Gold Stike Road	Minor Arterial	2C	Rolling	Rolling	4,400	4,800	5.5%
SR 49	22.21	27.61	Gold Strike Road	Mokelumne Hill, Jct. Rte. 26	Minor Arterial	2C	Mountainous	Moderate	4,200	4,600	5.5%
SR 49	27.61	30.87	Mokelumne Hill, Jct. Rte. 26	Amador County Line	Minor Arterial	2C	Mountainous	Moderate	5,000	5,400	5.5%

Source: Caltrans 1999 Traffic Volume Data; Caltrans 1997 Route Segment Report; 1997 California State Highway Log - District 10.

Note: Facility types are identified by the number of lanes and the type of roadway. C = Conventional Highway; E = Expressway

APPENDIX B

ROUTE SEGMENT CAPACITIES

Table B-1 Calaveras County Regional Transportation Plan Roadway Segment Capacities								
Facility/Location	Segment		Terrain	LOS A	LOS B	LOS C	LOS D	LOS E
SR 4	Stanislaus Co. Line	O'Byrnes Ferry Road	Rolling	2170	3670	6170	8830	10000
SR 4	O'Byrnes Ferry Road	SR 49	Mountainous	250	1250	2750	4580	8080
SR 4	--Concurrent Route with SR 49--		Mountainous	1000	2700	5100	7900	11100
SR 4	SR 49	Arnold	Rolling	1330	3560	6670	11330	16110
SR 4	Arnold	Big Trees	Mountainous	820	2090	4000	6000	8550
SR 4	Big Trees	Alpine Co. Line	Mountainous	530	1270	2470	3730	5600
SR 12	San Joaquin Co. Line	W. Jct. Rte. 12	Rolling	1300	3600	6800	11500	16400
SR 12	--Concurrent Route with SR 26--		Rolling	1220	3440	6560	11110	17220
SR 12	E. Jct. SR 26	Jct. Rte. 49	Rolling	1200	2900	5500	9200	14800
SR 26	San Joaquin Co. Line	W. Jct. Rte. 26	Rolling	1000	2560	4890	8440	15110
SR 26	W. Jct. Rte. 26	Jct. Rte. 49	Mountainous	750	1920	3750	6420	11500
SR 26	Jct. SR 49	Amador Co. Line	Mountainous	360	1640	3360	5640	10910
SR 49	Tuolumne Co. Line	N. Jct. Rte. 4	Mountainous	1450	3550	6550	11000	14910
SR 49	N. Jct. Rte. 4	W. Jct. Rte. 12	Mountainous	2000	4670	8780	14670	19780
SR 49	W. Jct. Rte. 12	Jct. Rte. 26	Mountainous	1450	3550	6550	11000	14910
SR 49	Jct. Rte. 26	Amador County Line	Mountainous	1300	3400	6400	11100	16200
Collectors								
Minor Collector				600	2000	3500	4900	5500
Major Collector				1000	3000	5500	8750	11200
Urban/Developed Area Routes								
SR 4	Arnold/Avery Area			not achievable		7900	11900	15900
SR 12	Valley Springs Area			not achievable		8700	13000	17300
SR 49	San Andreas Area			not achievable		10300	15500	20600
SR 49	Angels Camp Area			not achievable		10300	15500	20600
Note: All rural two lane road segments analyzed using Transportation Research Circular 1194, with 3.5 second headway.								
Note: All collectors and urban/developed area segments analyzed using 2000 Highway Capacity Manual Techniques.								

APPENDIX C

CRITICAL HIGHWAY PROJECT DESCRIPTIONS

The following discussion provides additional information on the purpose and need for critical highway projects listed in the Action Element tables (Tables 16-18).

SR 4 - Calaveras 4 Bypass (short-range priority) – The Calaveras 4 Bypass (North Angels Bypass) is designed to route regional traffic (including recreational through traffic) around the most developed areas of Angels Camp. The discontinuity of SR 4 across the SR 49 corridor combined with local and regional traffic within the Angels Camp area often results in unacceptable levels of congestion. This congestion causes some motorists to divert to Murphys Grade Road, which currently acts as a natural bypass for SR 4. The increased traffic on this City/County roadway results in congestion in the town of Murphys to the east.

The project extends from SR 4 at its northerly intersection with SR 49 easterly to existing Calaveras SR 4 east of Angels Camp. This project received partial funding for right-of-way (ROW) acquisition in the 1994 STIP. The project is programmed for 3.1 million of ROW in the County's 2000 interregional share balance, and is scheduled for construction in FY 2004/05.

Estimates from the RIM study show the traffic volume on Murphys Grade Road increase from its current volume of 6,200 ADT to over 12,000 ADT by 2022, assuming no bypass is built. This volume increases congestion to LOS F by 2022. The construction of the North Angels Bypass will help alleviate a significant portion of this congestion by diverting traffic away from SR 49 in Angels Camp.

SR 12/26 - Valley Springs Bypass (short-range priority) – The Valley Springs Bypass is designed to route traffic around already developed areas that have numerous access driveways and collector streets intersecting SR 12. In Valley Springs, traffic operations are further complicated by the intersection of SR 26 in the center of town. The alignment for the Valley springs Bypass is proposed south of existing SR 12 from approximately 1.3 miles west of the SR 26 intersection to 1.3 miles east. The bypass would be a two-lane arterial with limited local access and would interconnect with SR 26 south of Valley Springs.

The County's preference is to have this facility constructed and maintained by Caltrans as a State highway since it would serve a substantial portion of regional and through traffic. However, due to funding constraints and State geometric requirements, the facility may be constructed as a local arterial bypass.

SR 4 - Wagon Trail (Phase I and II) (short-range priority) – The existing alignment of SR 4 between O'Byrnes Ferry Road and SR 49 severely limits the capacity of this roadway. Projected growth of traffic along this corridor, which is a primary east-west link to the Central Valley, will require improvements that enhance roadway capacity and decrease delay. Roughly a six-mile segment of SR 4 will be reconstructed to expressway standards and realigned to allow for additional passing lanes and turnouts. The construction of a two-lane expressway will restore this segment to LOS C operations in 2022.

SR 4 - Passing Lanes (short-range priority) – In order to increase the operating efficiency and improve safety along SR 4, passing lanes are proposed between the north Angels Bypass and Murphys. These passing lanes will improve safety and reduce congestion levels.

APPENDIX D

FUNDING PROGRAM SUMMARY

The following provides a summary of the Federal, State, and local funding sources and programs available to Calaveras County.

ROADWAY SYSTEM FUNDING

FEDERAL SOURCES/PROGRAMS

The Transportation Equity Act for the 21st Century (TEA-21) was enacted June 9, 1998 as Public Law 105-178. TEA-21 authorizes the Federal surface transportation programs for highways, highway safety, and transit for the 6-year period 1998-2003. This Act provides a greater deal of flexibility for the State and local jurisdictions in deciding how federal dollars can be spent. TEA-21 includes several programs that provide funding for Calaveras County. A summary of key federal programs is provided below (a more detailed summary of federal funding programs under TEA-21 is contained in the Appendix.

Regional Surface Transportation Program (RSTP) - The RSTP provides funding for roadways, bridges, transit capital, bicycle, and pedestrian projects. Funding for this program is supported by the federal Surface Transportation Program. Calaveras COG currently exchanges all RSTP funds for State dollars, to be used for local road maintenance.

Transportation Enhancement Activities (TEA) – Section 3007 of TEA-21 requires that 10 percent of Surface Transportation Program (STP) funds be made available for transportation enhancement activities. TEA offers broad opportunities and federal dollars to take unique and creative actions to integrate transportation into local communities and the natural environment. The Program is designed to promote livable communities and strengthen partnerships.

Areas eligible for TEA funding include acquisition of scenic easements, scenic or historic highway programs, landscaping, rehabilitation of historic transportation buildings, preservation of abandoned railway corridors, pedestrian/bikeway improvements, and the acquisition of abandoned right-of-way for the conversion to pedestrian/bike trails.

Under TEA-21, safety education activities for pedestrians and bicyclists were added to the list of eligible projects. The COG is responsible for ranking TEA projects countywide, but the California Transportation Commission makes final funding decisions. Calaveras COG currently exchanges its TEA funds for State monies, to be used for local road maintenance.

Highway Bridge Replacement and Rehabilitation Program (HBRR) - The HBRR program provides funding for highway bridges in need of repair according to Federal safety standards. A total of \$20.4 billion nationwide is authorized for the program through 2003 to provide assistance for eligible bridges located on any public road. Caltrans has developed procedures for project selection and administration of Federal HBRR funds. These procedures have been adopted by the CTC. Under these procedures, 45 percent of the available funds are expended on State highway bridges and 55 percent on local highway

bridges. The selection of projects on the State highway system is made by the State through SHOPP. Projects on local bridges are selected by local agencies on the basis of bridge deficiency ratings. The program retains the 10 percent set-aside for off-system bridges, but eliminates the set-aside for timber bridges. The federal government allocates 80 percent of the funds and the remaining 20 percent must come from local sources.

Federal Lands Highways (FLH) - The FLH authorizes \$4.1 billion nationwide for Fiscal Years 1998 – 2003. Funding is provided for the three existing categories of Federal Lands Highways – Indian Reservation Roads (IRR), Park Roads and Parkways, and Public Lands Highways (discretionary and Forest Highways). In addition, a new category called Refuge Roads, which are federally owned public roads providing access to or within the National Wildlife Refuge System. FLH funds can be used for transit facilities within public lands, national parks, and Indian reservations. A nationwide priority for improving deficient bridges on IRR has been established with a minimum of \$13 million per year nationwide reserved for this purpose.

U.S. Department of Forestry - The U.S. Department of Forestry (USDF) places a fee on all timber receipts from federal lands. Calaveras County receives 25 percent of these receipts, the school district receives 25 percent, and the USDF receives the remaining half. These monies become part of the County Road Fund and are used for operational improvements. In recent years, the amount of funds available from timber receipts has been reduced significantly. As a result, identification of an additional source of maintenance funding is critical for Calaveras County.

Hazard Elimination and Safety Program – The Hazard Elimination and Safety (HES) program provides funding for improvements to facilities to eliminate travel hazards and improve safety. Projects are nominated by local agencies and funds are allocated on a competitive basis through Caltrans.

STATE SOURCES/PROGRAMS

Under California law (Title 23), most State transportation funds and most federal transportation funds are programmed through the four-year biennial State Transportation Improvement Program (STIP) and the four-year biennial State Highway Operation and Projection Program (SHOPP). Both documents are adopted by the California Transportation Commission (CTC).

The 1998 STIP serves as a six-year transition document, from the previous 1996 STIP seven-year document to the new statutorily required four-year format for the 2000 STIP. However, with the enactment of AB 2928, the 2002 STIP and future STIPs will cover 5-year periods. The STIP consists of two broad programs, the regional program (RTIP) funded from 75 percent of new STIP funding, and the interregional program (ITIP) funded from 25 percent of new STIP funding. The STIP includes projects to increase the capacity of State highways and local highways. Projects are included in the STIP by the CTC directly from the Regional Transportation Improvement Program (RTIP) as prepared by the COG. Projects are approved by the CTC for inclusion into the STIP from the Caltrans prepared Interregional Transportation Improvement Program (ITIP). Brief summaries of these programs are provided below along with other state funding sources:

Regional Improvement Program (RIP) - The RIP receives 75 percent of the STIP funding. The 75 percent is further subdivided by formula into county shares. For the 2000 STIP, Calaveras County was

allocated approximately \$3 million. A primary source of funding for the County minimums is the Motor Vehicle Fuel Tax.

Interregional Transportation Improvement Program (ITIP) - The ITIP receives the remaining 25 percent of the STIP funding. This program is controlled by Caltrans, but regional agencies can provide input on the specific ITIP projects for their region. No ITIP projects were programmed for Calaveras County in the 2000 STIP. However, the Tri-County partnership intends to request \$14.5 million in ITIP funds in the 2002 STIP, to complete funding of the SR 4 North Angels Bypass.

State Highway Operations & Protection Program (SHOPP) - The purpose of the SHOPP program is to maintain the integrity and safety of the State Highway System. Funding for this program is provided through gas tax revenues. Projects are nominated within each Caltrans District office and are sent to Caltrans Headquarters for programming. Final project determinations are subject to CTC review. SHOPP projects include, pavement and bridge rehabilitation, traffic operational improvements and seismic safety projects, and are based on statewide priorities within each program category within each Caltrans District, and are not subject to county minimums. SHOPP funds cannot be used for capacity-enhancing projects.

Minor Program - The Minor A Program is a District-discretionary funding program based on annual Statewide/District allocations. This program provides some level of discretion to Caltrans District Offices in funding projects up to \$750,000. Minor B funds are used for projects up to \$117,000. The advantage of this program is the streamlined nature of the funding process and the local nature of the decision-making. Funding is competitive within the funds allocated to a given District.

Environmental Enhancement and Mitigation (EEM) Program - Similar to TEA, the EEM offers funding to remedy environmental impacts of new or improved transportation facilities. Mitigation can include highway landscapes and urban forestry or development of roadside recreational facilities such as roadside rest stops, trails, scenic overlooks, trailheads, parks, and snow-parks. This grant program is managed by the State Resources Agency, although the COG makes final funding decisions. Each cycle allocates \$4 million to the Northern California counties. The application process is competitive with a \$500,000 project cap for any single project, and is open to governmental or non-profit entities.

Congestion Management/Air Quality Program (CMAQ) – CMAQ funds are allocated to non-attainment areas based on population and severity of pollution. The COG can make project and programming selections in consultation with the State and local agencies. Calaveras County may be designated as a non-attainment area by EPA within the next two years. As such, the County would be eligible for CMAQ funds to fund projects to improve air quality.

LOCAL SOURCES/PROGRAMS

The following local funding sources may potentially be considered in Calaveras County.

Traffic Mitigation Fees - Traffic mitigation fees are one-time charges on new development to pay for required public facilities, and to mitigate impacts created by the development or reasonably related to it. There are a number of approaches to charging developers for the provision of public facilities. In all cases, however, the fees must be clearly related to the costs incurred as a result of the development. AB 1600, which was passed to govern the imposition of development fees, requires that a nexus, or rational connection, be made between a fee and the type of development on which the fee is based. Furthermore,

fees cannot be used to correct existing problems or pay for improvements needed for existing development. A county may only levy such fees in the unincorporated area over which it has jurisdiction. Currently, the County is in the process of developing a countywide Road Impact and Mitigation Program (RIM) that will access new development for county road improvements affected by development. If adopted, the RIM fee program will be used to fund these transportation improvements. The City of Angels also collects capital and maintenance fees from new development to help maintain and improve City streets.

Development Mitigation Measures/Agreements - Development mitigation measures are imposed whenever developments require approval by a local entity. Generally, mitigation measures are imposed as conditions on tentative maps. These conditions reflect on- and off-site project mitigation that must be completed in order to be able to develop. Development agreements are also used to gain cooperation of developers in constructing off-site infrastructure improvements or dedicating rights-of-way needed as a result of the proposed development.

Local Transportation Funds - Local Transportation Funds (LTF) are available for transit, roadway, bicycle, and pedestrian purposes. LTF is derived from 1/4 cent of the State sales tax. These funds are returned to the county by the State. Approximately 2 percent of the County's LTF is set aside for pedestrian and bicycle projects. The remaining funds are dedicated to provide transit service at levels required to meet reasonable transit needs. Any amounts not used for transit can be used for other transportation improvements, including street and road improvements. The COG apportions the funds to the cities and county based upon population. In recent years, little LTF have remained available for streets and roads at the end of the allocation process.

Road Operations And Maintenance - Besides the major capital projects recommended in this RTP, Calaveras County has significant, ongoing operations and maintenance (O&M) needs. The County historically has spent approximately \$5,000,000 per year in maintenance funding, and currently has a backlog of deferred maintenance totaling approximately \$40,000,000. To some extent, the funding for O&M and capital projects overlap. Therefore, it is important to understand the annual O&M funding sources. Each source is briefly described below.

- ⇒ *State Gas Taxes* - The State of California returns a portion of the statewide gas tax revenues to each jurisdiction for the purpose of maintaining roadways. These funds are restricted for use to the City's Road Fund and are accrued on an annual basis. The formula for determining the amount of allocation to each City is complex, but primarily determined based on population.
- ⇒ *Motor Vehicle In-Lieu Fees* - The Motor Vehicle In-Lieu Fees are motor vehicle registration funds returned to the County from the State based on a jurisdiction's population. These funds are General Fund revenues and are not restricted for roadway use. Therefore, the dedication of these funds to provide roadway O&M is essentially a use of General Fund revenues.
- ⇒ *Local Transportation Fund (LTF)* - As stated above, any funds not allocated to transit, bicycle and pedestrian facility improvements can be used for road operations and maintenance. It is anticipated that increased operations and contractual costs for transit will

significantly lessen the amount of funds available for road O&M during the life of the RTP.

- ⇒ *Benefit Assessment Act of 1982* - The Benefit Assessment Act of 1982 allowed for the development of countywide assessments for drainage, flood control, and street lighting. A 1989 amendment to the Act added street maintenance assessments. To date very few cities or counties have instituted this assessment for street maintenance.

PUBLIC TRANSIT SYSTEM FUNDING

Funding for public transit systems is available from a variety of sources. The following is a brief description of the principal sources expected to be available.

FEDERAL SOURCES/PROGRAMS

Funding for transit capital and operational costs has traditionally been provided by the Federal Transit Act. The majority of these monies is designated, by law, for use in urban areas, and is not available for use by Calaveras County. However, some provisions exist for funding in rural areas, which have now been expanded by TEA-21.

FTA Section 5311 Funds (Non-urbanized Area Formula Program for Public Transportation) - The FTA apportions Section 5311 funds annually to each state for public transportation projects in non-urbanized areas. The State prepares an annual program of projects, which must provide for fair and equitable distribution of funds. Approximately \$1.18 billion is available nationwide for apportionment in proportion to each State's non-urbanized population through 2003.

FTA Section 5310 Fund (Elderly and Persons with Disabilities Program) - Provides funds to each state to assist private nonprofit organizations in the purchase of capital equipment (vehicles and related equipment) to provide transportation services which meet the special needs of elderly persons and persons with disabilities.

Rural Transportation Accessibility Incentive Program (FTA Section 5311(f) - This program provides \$24.3 million through 2003 nationwide for over-the-road bus service. The purpose of the funding is to help public and private operators finance the incremental capital and training costs of complying with the DOT's final rule on accessibility of over-the-road buses. Funding may be used for intercity fixed-route over-the-road bus service and other over-the-road service such as local fixed route, commuter, charter, and tour service. The program is administered through a competitive grant selection process.

TEA 21 Section 3037 (Job Access and Reverse Commute Grants) – Provides competitive grant funds to develop transportation services that are specifically designed to transport welfare recipients and low-income individuals to and from job locations. Emphasis is placed on projects that use mass transportation services.

STATE AND LOCAL SOURCES/PROGRAMS

The following summarizes the state transit funding programs.

Local Transportation Fund - The primary source of local funds used to operate the Calaveras Transit System in recent years has been the LTF, made available by Senate Bill 325 (1971) and amended. SB 325 is also known as the Transportation Development Act (TDA).LTF funds are apportioned to transit within a County based on the ability of the transit system to meet the County's transit needs that are "reasonable to meet." Historically, the transit allocation of LTF funds to Calaveras Transit has averaged slightly over 50 percent of the total LTF. The remaining funds are used for LTF administration, subsidized transit and taxi programs, and 2 percent goes for bicycle and pedestrian facilities. In 2002, Calaveras Transit will receive \$312,000.

State Transit Assistance (STA) - Funding for public transportation is available from the STA. These funds were established in 1979 under SB 620 and amended in 1982 under SB 215 and AB 251/SB 1335. The funds are derived from the Public Transportation Account (PTA). Fifty percent of the funds are allocated to Caltrans and the other 50 percent to RTPAs. Of the 50 percent to the RTPAs, fifty percent are allocated to mass transit projects for vehicles, equipment, terminals, etc. and the other fifty percent to Transit operators, based on fare revenues. Local transportation planning agencies have in the past allocated these funds to operators of public transit (under formula basis) or allocated them for streets and roads (under certain conditions). Calaveras County is normally entitled to funding under both of the above conditions. However, the primary intent of this legislation is to give priority consideration to claims to offset the unanticipated increases in the cost of fuel, to enhance existing public transportation services, and to meet high priority regional, countywide, or area-wide public transportation need. The money is placed in reserve for transit purposes and is maintained by the COG. Calaveras County will receive \$96,000 in STA in 2002.

Fares - Fare box recovery for the Calaveras Rural Bus has traditionally run approximately 7 percent of total operating costs. This ratio increased to approximately 9 percent in 2001. Fares are collected from both general passengers as well as through contracts with other public agencies. Fluctuations in these contracts may cause overall fare revenue to vary from year-to-year. In 2002, Calaveras Transit is expected to receive \$54,000 in Fare box revenues.

AVIATION SYSTEM FUNDING

The Federal Airport Improvement Program (AIP) under the Federal Aviation Administration (FAA) provides 90 percent Federal funding with 10 percent local funding for general aviation airports. The program focuses on projects that enhance capacity, safety, security, and noise mitigation.

AIP funds are derived from user charges such as taxes on aviation fuels, taxes on civil aircraft and a surcharge on air passenger fares, and can be used for most capital expenditures. The State of California Aid to Airports Program (CAAP) makes grant funds available for airport development and operations to promote a statewide system of safe and environmentally compatible publicly owned airports.

Three types of state financial aid to publicly owned airports are available through the CAAP.

Annual Grants (Public Utilities Code section 21682) are available to public-use, publicly owned general aviation airports. Commercial services and reliever airports are not eligible. An eligible airport is credited annually with a grant of \$10,000, which may be used for capital improvements, maintenance and

operation. This grant may be accumulated for up to five years (a maximum of \$50,000). These grants do not require matching funds.

Acquisition & Development (A&D) (Public Utilities Code Section 21683) - These funds are allocated by the CTC on a discretionary basis for capital projects. To be eligible, an airport must have its project listed in the state's Capital Improvement Program (CIP). The CIP is a ten-year list of projects divided into two five-year phases. The project listings are developed from local, regional, state and federal sources and are submitted to the Aeronautics Program through the RTPAs.

AIP Matching Grants (Public Utilities Code 21684 - This grant assists the sponsor in meeting the local match for FAA AIP grants. The sponsor must meet the same eligibility requirements as for the Annual Grant except that reliever airports can receive AIP matching grants. The matching rate is 5% of the AIP grant. State funds for an AIP matching grant cannot be allocated by the state until the Federal grant has been accepted by the sponsor. The highest rated projects are normally those that relate to safety and State mandates.

Because of the competitive nature of the State and Federal funding programs, it is difficult to accurately project potential revenue from these sources. Furthermore, the AB 597 split of funds between the AIP match and state acquisition and development grants, provides even less discretionary funds for State projects.

The COG has nominated six improvement projects for Maury Rasmussen Field in Calaveras County. As shown in Table 27 of the Action Element, these projects total approximately \$1.1 million. Projects range from improving the water system to purchasing additional land for future airport expansion. Projects provide safety and multi-modal improvements to the airport. No funding deficits are anticipated assuming a reasonable level of success in the acquisition of grant funding.

BICYCLE AND PEDESTRIAN SYSTEM FUNDING

Several programs are available for the funding of bicycle and pedestrian improvement projects. Calaveras County has budgeted approximately \$12,000 for new bikeway projects in the 2001/2002 Budget. Other federal funding sources under TEA-21 that can be used for bicycle and pedestrian projects include the Bicycle Transportation and Pedestrian Walkways program, the Recreational Trails program, the STP program, the National Scenic Byways Program, and the Transit Enhancements program.

With regards to State funding, Calaveras County has prepared a Bikeway Master Plan (BMP) in 1998. Because this BMP is adopted, the County will be allowed to compete for Bicycle Transportation Act funds. These funds are available on an annual basis and are competitive throughout the State. After 2004, there will be approximately \$5 million allocated to the BTA each year for bicycle projects. The funds from the BTA are competitive. In addition, the BMP will also assist the County in competing for State grants through programs such as the EEM program described above and the Habitat Conservation Fund (HCF) program administered by the California Department of Parks and Recreation.

As shown in Table 25 of the Action Element (Chapter IV), approximately \$1.3 million in bikeway and pedestrian projects are not yet programmed. These projects will be implemented as funding becomes available. In addition, the BMP contains other important projects, which will also be considered as funding becomes available. The County can affect the amount of funding by aggressively pursuing competitive funding sources such as BTA and TEA.

GENERAL FUNDING SOURCES

Calaveras County may need to undertake significant actions to ensure all improvement needs are funded. In addition to the sources already in use, there are several potential funding sources that Calaveras County should consider as potential solutions, which are not mode specific.

LOCAL-OPTION SALES TAX

In California, a sales tax is a levy on retail transactions and use categories as defined in the Revenue and Taxation Code. Up to a one-cent additional sales tax can be levied by county-created taxing authorities for the improvement of the transportation system, as authorized under the Local Transportation Authority and Improvement Act, Division 19, commencing with Section 180000 of the Public Utilities Code. Passage of the sales tax requires a majority vote of the county electorate according to the State Supreme Court regarding a recent court decision in Santa Clara County.

MOTOR VEHICLE FEE

The State imposes fees on those that own and operate vehicles in the State. The California Vehicle Code and Revenue and Taxation Code provide authorization for the two primary means of assessing vehicle: registration and licensing. Currently, a county cannot impose vehicle registration fees other than those authorized under a special program, which is exclusively for the use of financing emergency call box systems, and for air-quality enhancement in non-attainment areas. Additional vehicle registration fees would require legislative approval.

MOTOR VEHICLE FUEL TAX

A motor vehicle fuel tax is a surcharge on fuel. Counties are permitted to impose a per gallon tax on motor fuel sold within the county if a proposition granting the authorization is approved at an election by two-thirds of the voters. Such a tax would allow collection of moneys for new roadways from County residents as well as tourists purchasing gas within the County. While such a tax would provide a direct link between the use of roadways and the payment of roadway facilities, a two-thirds affirmative electoral vote on such a tax increase may be very difficult to achieve in the current economic climate.

SPECIAL DISTRICTS

Special districts can be used by a jurisdiction to obtain up-front financing for projects benefiting defined areas or developments. The two most commonly formed districts are assessment districts and Mello-Roos Community Facility Districts (CFDs). In addition, a Marks-Roos Bond Pooling Authority could be formed 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 advantage of an assessment district or a Mello-Roos CFD is that facilities can be built ahead of the development that causes the need for those facilities. However, in many instances, any funding provided through a special district is offset by a credit in development fees.

BENEFIT ASSESSMENT

A benefit assessment is a charge levied against a property owner in order to pay for local improvements that directly benefit the owner's property. Counties can create assessment districts in unincorporated areas and cities can create districts in their jurisdictions. Most assessment districts are formed under the Streets and Highways Code and are used to finance local streets, water, and sewer extensions. Since assessment districts can only be used to finance improvements that benefit local property owners, so their application to regional projects is limited.

APPENDIX E

TEA-21 TRANSPORTATION EQUITY ACT FOR THE 21ST CENTURY PROGRAM FACT SHEETS

Individual fact sheets for each TEA-21 funding program can be found at the following website:

http://www.fhwa.dot.gov/tea21/factsheets/n_402.htm

APPENDIX F

TEA-21 SEVEN PLANNING AREAS

The RTP is required to consider strategies to meet the seven planning areas specified in Title 23, 134(f) of the U.S. Code. In development of the Calaveras County 2001 RTP, the planning process addressed in the seven planning areas as follows:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.

The most important issues in supporting the economic vitality of Calaveras County are to minimize congestion on State and County roads, and to provide for multi-modal facilities. In order to address these issues, the transportation planning process examined strategies for coordinating and integrating system operations across modes and jurisdictions. To the extent possible, this included consideration of alternatives to the automobile such as transit, walking, biking, and coordination with adjacent counties (Amador, Alpine, Tolumne) and local Indian Tribal Governments. The RTP identifies the current and long-range improvements necessary to relieve congestion on its State highways and County roads of regional significance. Planned improvements are consistent with the RTIP. In addition, the RTP contains policies that require new development to provide the necessary transportation infrastructure to meet the planned policy level of service on State highways.

2. Increase the safety and security of the transportation system for motorized and non-motorized users.

The RTP considers safety and accident reduction as an important goal and objective. In addition, safety considerations were incorporated into the development of a specific performance measure for monitoring the accident rate on State highways. The planning process identified safety projects and recommended funding to solve specific problem areas such as the SR 4 North Angels Bypass, the SR 4 passing lanes near Arnold, and the Valley Springs SR 26/12 Bypass. An evaluation category is included in the Action Element to identify a project's contribution to safety.

Improved safety and emergency response is addressed as important ITS considerations for the County. In addition, several projects proposed for Calaveras Transit and for the County airport address safety concerns.

3. Increase the accessibility and mobility options available to people and for freight.

The RTP documents the "Unmet Needs" process used to identify transit improvements throughout the County. In the short-range, two transit vehicles will be replaced so that current levels of transit service can be maintained. In the long-range, four additional transit vehicles are planned for in addition to increased passenger amenities.

The RTP contains policies and recommended actions to address freight movement in the County. Many of the County's two-lane State highways and roads carry 6 to 7 percent trucks, which adds to overall congestion on these facilities. The RTP calls for additional coordination with Caltrans to identify appropriate truck routes, in addition to proposing turnouts and passing lanes on regional facilities.

4. Protect and enhance the environment, promote energy conservation, and improve equality of life.

The guiding principle in preparing this RTP update is to provide a better balance between transportation system planning for all modes and land use. This approach will result in lower cost for improvements and increased operational efficiency of the existing transportation system. The RTP identifies the function, capacity and level of service of transportation facilities to make sure they are consistent with applicable county land use and transportation policies. The goal is to balance travel patterns with land use zoning to promote a multi-modal transportation system, enhance the environment, promote energy conservation, and improve quality of life for Calaveras County residents. The following key concepts were considered in the RTP to help promote a viable connection and functionality between the transportation system and planned land uses:

- Support countywide multi-modal travel on major routes that connect major activity destinations. The transportation system provides multi-modal access (auto and transit) from local areas to county activity centers in San Andreas and Angels Camp;
- Promote pedestrian and bicycle accessibility, and safety for transit and major activity designations. The RTP recommends several bike and pedestrian projects from the 1998 Bikeway Master Plan. These projects link major activity designations.

5. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;

The RTP planning process included input from the freight community and considered projects to promote the efficiency of intermodal connectors by recommending the addition of truck climbing lanes at key locations on the state highway system.

6. Promote efficient system management and operation.

Projects in the RTP are prioritized through a cooperative process between the COG, County, City of Angels, and citizen participation. Cost effectiveness is used as important criteria for reviewing and selecting RTP projects. In addition, Caltrans uses life cycle

cost considerations for all major capital investments that are programmed for construction.

7. Emphasize the preservation of the existing transportation system.

The preparation of this RTP uses a 2022 planning horizon to make sure that a full twenty-years is provided for in the development of projects and programs. The Action and Financial Elements identify the long-range roadway maintenance, rehabilitation, and reconstruction needs for the County. In addition, the backlog of deferred maintenance is addressed. Additional local funding sources are recommended to address the “unfunded” needs.

PLANNING EMPHASIS AREAS

Each year the Federal Transit Administration (FTA) and the Federal Highway Administration (FHWA) provide the State Department of Transportation and RTPAs with “Planning Emphasis Areas” (PEAs) for use in the development of their Unified Planning Work Programs. For Fiscal Year 2001, the FTA/FHWA are using the following five PEAs to promote priority themes for considerations in the RTP.

1. Mainstreaming safety in the transportation planning and decision-making process.

Safety is brought into the RTP planning and decision-making process by including a specific safety performance measure in the Action Element to monitor the accident rate (accidents per 1,000,000 miles of travel) for State highways. In addition, safety is included in the Action Element project tables under Purpose and Need to designate those projects that have a safety focus. The safety element will assist in project prioritization by the COG, County, and City of Angels.

2. Incorporation of environmental streamlining as a policy and planning analysis theme within planning processes.

The guiding principle in preparing this RTP update is to provide a better balance between transportation system planning for all modes, and land use. This approach results in lower cost for improvements and increased operational efficiency of the existing transportation system. How was this accomplished? First, by incorporating a specific goal, objective and policy to mitigate potential transportation impacts resulting from transportation decisions to “less than significant.” Second, by including a specific performance measure to monitor the progress in achieving this goal.

The intent of the goal and performance measure is to make sure the identified function, capacity and level of service of transportation facilities are consistent with applicable county land use, and transportation policies contained in the RTP. In addition, projects in the RTP will meet CEQA and NEPA requirements prior to construction. These actions will help to balance travel patterns with land use zoning to promote a multi-modal transportation system, enhance the environment, promote energy conservation, and improve quality of life for Calaveras County residents.

The planning process to develop the RTP includes the development of future transportation infrastructure (such as the North Angels Bypass and the Valley Springs SR 26/SR 12 Bypass), that has been going through an extensive environmental review. The environmental review includes impacts to open space, regional parks and wetland areas. The process also includes an analysis of vehicle miles of travel (VMT) and vehicle hours of travel (VHT) as indicators of energy consumption. The goal is to minimize both VMT and VHT to help maintain acceptable air quality in the County.

3. Transportation system management and operation.

As addressed earlier, the transportation planning process used for the RTP examined strategies for coordinating and integrating system operations across modes and jurisdictions. To the extent possible, this included consideration of alternatives to the automobile such as transit, walking, biking, coordination with adjacent counties (Amador, Alpine, Tolumne), and coordination with local Indian Tribal Governments.

TEA-21 requires that Intelligent Transportation Systems (ITS) be included in the planning process in order to advance ITS projects to implementation. The RTP addresses the ITS Architecture and includes a multi-modal category in the Action Element tables to indicate if a project provides multi-modal benefits.

The results and recommendations from a TDM Feasibility study are included in the RTP to promote non-vehicle travel.

4. Demonstrated compliance with Title VI of the Civil Rights Act and accommodation of the principles of environmental justice.

An inclusive public involvement process was used to ensure transportation decisions were made in an equitable manner. Transportation issues and solutions were discussed at a public workshop on June 26, 2001, and business organizations, citizens, and Indian tribes were invited to provide input and comment. This process was consistent with Title VI of the Civil Rights Act of 1964, the Executive Order on Environmental Justice (Executive Order 12898), and the RTP Guidelines.

5. Coordination of non-emergency transportation services.

The RTP recommends on-going coordination for non-emergency transportation service between the County, City of Angels and other interested parties. Through the “unmet” needs process, transit issues are discussed and evaluated. The County’s elderly and disabled population benefits from expanded transit service through Calaveras Transit. The “unmet” needs process and hearings ensure that citizen concerns are addressed.

In addition, because the County does not have a major HMO, transit service is provided to neighboring Amador County with connecting service to Sacramento. Future connections are being considered to Stockton.

APPENDIX G

Table G-1 Roles and Responsibilities in Statewide, Regional, and Metropolitan Transportation Planning for Tribal Governments										
Statewide, Regional, and Metropolitan Planning	ROLES (●) & RESPONSIBILITIES (*)									
Activities	DOT			DOI			ITG	STA MPO RTPA	LOCAL GOV.	TTAP LTAP
	FTA	FHWA		OSG	BIA DOT	BIA AREA				
		FLH	FADO							
• Review list of projects in STIP		●	●			*	*	*	*	
• Consider concerns of ITG in planning process								*		
• Provide assistance to ITG		●	●	*	●	*		*		
• Provide draft RTP								*		
• Develop needs and issues for ITG	*	*	*		*	*				●
• Invite ITG to planning / coordination meetings								*		
• Provide copies of RTP to ITG								*		
• Incorporate approved IRR TIP into the STIP w/o change								*		
• Advise ITG about funding opportunities	*	*	*		*	*		*	*	●

Source: Indian Reservation Roads, Planning and Guidelines, October 1999.

BIA–Bureau of Indian Affairs; BIADOT–Bureau of Indian Affairs, Division of Transportation; DOI–Department of Interior; DOT–Department of Transportation
 FADO–Federal-Aid Division Office; FHWA–Federal Highway Administration; FLH–Federal Lands Highway; FTA–Federal Transit Administration; IRR–Indian Reservation Roads; ITG–Indian Tribal Government; LTAP–Local Technical Assistance Program; OSG–Office of Self-Governance; TTAP–Tribal Technical Assistance Program; STA – State Transportation Authority; MPO – Metropolitan Planning Organization; RTPA – Regional Transportation Planning Agency.

APPENDIX H

RTP GUIDELINES

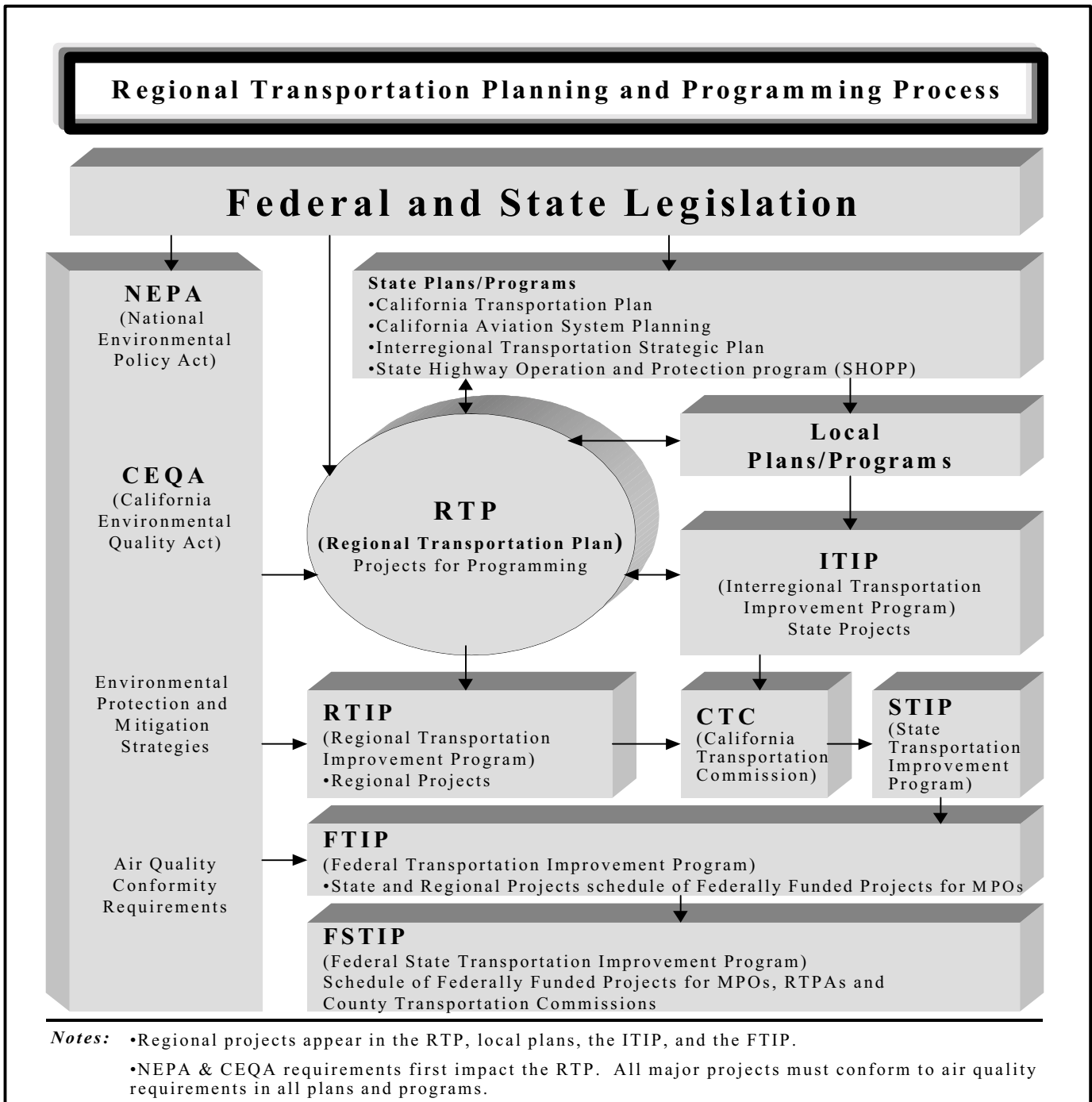
RTP APPENDIX H

**Regional Transportation
Planning and Programming Process**

X. APPENDIX H - REGIONAL TRANSPORTATION PLANNING AND PROGRAMMING

Regional Transportation Planning and Programming Flow Chart

The Regional Transportation Planning and Programming Process is a complex, cooperative process that includes all levels of Government with the opportunity for input from all stakeholders at each level. The following diagram shows the flow of legislation from planning to project development. Following the diagram is a glossary providing a narrative of the diagram components.



X. APPENDIX H - REGIONAL TRANSPORTATION PLANNING AND PROGRAMMING

Plans, Statutes, and Program Relationships under State and Federal Legislation

Plans

Regional Transportation Plans (RTP): Developed by Metropolitan Planning Organizations (MPOs) and Regional Transportation Agencies (RTPAs) to provide a comprehensive view of the transportation problems of a region and recommended solutions. RTPs have a minimum of a 20-year horizon period and are required by State and Federal law. For MPO RTPs, all projects in the FTIP must be consistent with the RTP. In air quality nonattainment areas, RTPs must conform to the State Implementation Plan.

California Transportation Plan (CTP): The CTP is developed by Caltrans and submitted to the Governor. It includes a policy element describing state transportation policies and system performance objectives, a strategies element incorporating broad system concepts and strategies partially synthesized from RTP, and a recommendations element that includes economic forecasts and recommendations to the Legislature and Governor.

California Aviation System Plan (CASP): Prepared by Caltrans every five years as required by PUC 21701. The CASP integrates regional aviation system planning on a statewide basis.

Interregional Transportation Strategic Plan (ITSP): Describes the framework in which the state will carry out its responsibilities for the Interregional Improvement Program (IIP).

Statutes

National Environmental Protection Act (NEPA): Federal legislation which created an environmental review process similar to CEQA, but pertaining only to projects having federal involvement through financing, permitting, or Federal land ownership.

California Environmental Quality Act (CEQA): A state-mandated process in which the environmental effects associated with the implementation of a “project” is fully disclosed.

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Programs

Regional Transportation Improvement Program (RTIP): A four-year list of proposed transportation projects submitted to the California Transportation commission by the RTPAs. Some RTIP projects may have federal funding components in which case they will also appear in the FTIP once they have been selected for the STIP (see below).

State Transportation Improvement Program (STIP): A four-year list of transportation projects proposed in RTIPs and PSTIPs, which are approved by the California Transportation commission. Those projects that have federal funding components will also appear in the FTIP and FSTIP.

State Highway Operations and Protection Program (SHOPP): A program including projects related to state highway safety and rehabilitation, seismic safety, and traffic operational improvement's. Traffic Systems Management Program: A program of projects (e.g., re-striping, metering, HOV, ridesharing, flexible work schedules, etc.) for better system utilization and operational efficiency.

Federal Transportation Improvement Program (FTIP): A three-year list of all transportation projects proposed for federal funding within the planning area of an MPO. It is developed as a requirement for funding. In are quality nonattainment areas the plan must conform to a State Implementation Plan.

Federal State Transportation Improvement Program (FSTIP): A three year list of transportation projects proposed for funding developed by the State in cooperation with MPOs and in consultation with local non-urbanized governments. The FSTIP includes all FTIP projects as well as other federally funded rural projects.

Interregional Transportation Improvement Program (ITIP, formerly known as PSTIP): Funds capital improvements, on a statewide basis, including capacity increasing projects primarily outside of an urbanized area. Projects are nominated by Caltrans and submitted to the California transportation commission for inclusion in the STIP. The ITIP has a four-year planning horizon and is updated every two years by the CTC.

Appendix I

Reference Documents

The following pages list local and regional plans which were reviewed for conformity with this plan and transportation studies that were considered in preparation of this plan.

Local and Regional Plans and Laws

- City of Angels Camp General Plan, City of Angels Camp, September, 1994
- Alpine County General Plan/Transportation Plan Update, Alpine County Board of Supervisors, Alpine County, CA, 1999
- Calaveras County General Plan, Calaveras County, 1996
- Calaveras County Bikeway Plan Update Final Report, Fehr & Peers Associates, Inc., March 1998
- 1996 Calaveras County Regional Transportation Improvement Program, Calaveras County LTC, December 18, 1995
- Adopted 2000 SHOPP, California Department of Transportation, District 10, 1999
- Adopted 1998 STIP, CTC, May, 1998
- “Highway 88 Planning Agreement”, Counties of Calaveras, Alpine and El Dorado, Caltrans, USFS and FHWA, 1985

Regional Transportation Plan Guidelines, CTC< December, 1999

Local and Regional Transportation Studies

- Access and Transportation in the Foothills, California Governor’s Office of Planning and Research, Sacramento, CA, January, 12, 1981
 - City of Angels Camp Circulation Study and Appendices, Final Report, Charles R. Leitzell, P.E., May, 1991.
 - Arnold Community Plan, Calaveras County, February 25, 1980
 - Arnold Community Plan, Calaveras County, December 14, 1998
 - Calaveras County Airport Special Plan, Calaveras County, October 19. 1992
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- Calaveras County Circulation Study, Final Report, TJKM Transportation Consultants, June 8, 1992
 - Final Summary Report for the Calibration and Combination of the Calaveras County and City of Angels Traffic Demand Models, Spectrum Engineering, July 24, 1995
 - Calaveras County TDM Feasibility Study – Final Report, Nelson/Nygaard Consulting Associates, February 1998
 - Calaveras County Traffic Model Validation Report, Fehr & Peers Associates, November, 1995
 - Calaveras County-Wide Transit Study J. Kaplan & Associates, June, 1994
 - Calaveras Transit Marketing Plan, Selena Barlow, June 2000
 - Caltrans System Management Plan, District 10, Caltrans, Stockton, CA, 1989
 - Caltrans System Management Plan, Draft District 10, Caltrans, Stockton, CA, 1992
 - Draft Circulation Study for the Copperopolis Area in the County of Calaveras, Willdan Associates, December, 1994
 - Ebbets Pass Highway Special Plan, Calaveras County, June 1, 1988
 - Four County Recreational Transit Demand and Feasibility Study, J Kaplan and Associates, Walnut Creek, CA, July 1988
 - Interregional Road System Plan, Caltrans, Sacramento, CA, February, 1990
 - Mokelumne Hill Community Plan, Calaveras County, June 1, 1988
 - Murphys and Douglas Flat Community Plan, Calaveras County, June 1, 1988
 - North Angels Camp Bypass, Draft Project Report, California Department of Transportation, March 2, 1995
 - Project Scope and Summary Report – On Route 12 from 0.2 miles east of Valley Springs to Junction of Route 49, California Department of Transportation, District 10, December, 1993
 - Project Study Report – Construct eastbound passing lane on State Route 4, Postmile 53.8-54.9, California Department of Transportation, District 10, June, 1993
 - Precise Plan Report – Route 26 from Silver Rapids Road to Route 12 Junction, Postmile 7.6-10.3, California Department of Transportation, District 10, August, 1989
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- Project Study Report – On Route 4 between 0.8 miles and 1.05 miles east of Utica Powerhouse Road, California Department of Transportation, District 10, October, 1992
 - Rancho Calaveras Special Plan, Calaveras County, November 28, 1983
 - San Andreas Community Plan, Calaveras County, June 1, 1988.
 - State Highway 4 Corridor Study in the Arnold/Avery Area, TJKM Transportation Consultants, January, 1992
 - State Route 88 Corridor Study, Alpine County, California, Fehr & Peers Associates, Inc., October 4, 1994
 - Traffic Model – Circulation Study Phase for Calaveras County, TJKM Transportation Consultants, January, 1992
 - Valley to Foothill Intermodal Subarea Study, Working Papers 1-4 and Final Reports, Fehr & Peers Associates, 1995
 - Valley Springs Community Areas General Plan – 1974 – 1994, Calaveras County, 1974
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