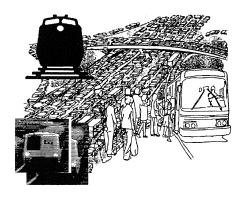


# **Table of Contents**



## **TABLE OF CONTENTS**

I.	EXI	ECUTIVE SUMMARY1.1									
II.	OV	OVERVIEW2									
	A.	Introduction2.1									
	B.	Purpose of the Peninsula Transportation Plan2.1									
	C.	Relationship of the PTP to Other Transportation Plans2.2									
III.	SE	TTING									
IV.	GO	ALS AND OBJECTIVES4.1									
V.	LAI	ND USE5.1									
	A.	Background5.1									
	B.	Issues5.1									
	C.	Policies5.8									
VI.	RO	ADS6.1									
	A.	Background6.1									
	B.	Issues									
	C.	Policies6.10									
VII.	ВІК	(EWAYS7.1									
	A.	Background7.1									
	B.	Issues									
	C.	Policies7.4									

VII.	TR	ANSIT8.1
	A.	Background8.1
	B.	Issues8.4
	C.	Policies8.8
IX.	HIG	SH SPEED RAIL 9.1
	A.	Background9.1
	B.	Issues9.2
	C.	Policies9.7
X.	CA	LTRAIN10.1
	A.	Background10.1
	B.	Issues
	C.	Policies10.6
XI.	ВА	RT11.1
	A.	Background11.1
	B.	Issues11.2
	C.	Policies11.8
XII.	SA	MTRANS12.1
	A.	Background12.1
	B.	Issues
	C.	Policies

XIII.	FEI	RRIES	13.1
	A.	Background	13.1
	B.	Issues	13.4
	C.	Policies	13.6
XIV.	TR	ANSPORTATION SYSTEM MANAGEMENT	14.1
	A.	Background	14.1
	B.	lssues	14.1
	C.	Policies	14.9
XV.	PR	ICING	15.1
	A.	Background	15.1
	B.	Issues	15.2
	C.	Policies	15.5
XVI.	PE	DESTRIANS	16.1
	A.	Background	16.1
	B.	Issues	16.6
	C.	Policies	16.8
XVII.	FIN	IANCIAL	17.1
	A.	Introduction	17.1
	B.	Analysis	17.1
	C.	Facts and Findings	17 2

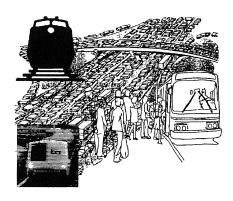
APPENDIX A:	A.1
Bibliography	
APPENDIX B:	A.2
Glossary of Acronyms	

mldk1356\_wkt.doc (9/7/2000)





# **Executive Summary**



## What is the CTP? The CTP is a plan...















...for **all** modes (roads, Caltrain, SamTrans, BART, bicycles)



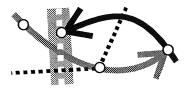
...that looks at all modes as **one** system.

...that advocates **policy**, not projects.



It is **not** a capital improvement program.

...whose policy is derived from understanding



the relational interaction between the modes.



...that strives for **synergy** among the parts of the transportation system:



the whole is greater than the sum of the parts.



...that seeks to develop the parts of the system to the **optimal** size, .....rather than the maximum.



...that provides critical information to help make **informed** decisions.

...that recognizes the decentralized,



fragmented



and **complex** decision-making structure



of transportation planning in the County.

...that seeks to coordinate decision-making,

... relying on **cooperation** and not enforcement.

## **Goal:**

## **Reduce Traffic Congestion in San Mateo County**

Improve mobility.

Reduce congestion.

Increase access.

Improve air quality.

Increase economic vitality.

Improve the coordination of land use and transportation planning.

Increase reliability.

Increase safety.

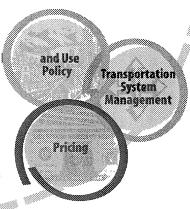
## **Objectives:**

Increase CAPACITY and PERFORMANCE (safety, reliability, convenience) of all transportation systems

Increase DEMAND for transit travel

Decrease DEMAND for automobile travel, especially single-occupant





# Strategy:

## **Attack Congestion on 5 Fronts!**

#### Roads

Increase the EFFICIENCY of the EXISTING highway system. (Auxiliary lanes, interchange improvements, ramp metering)

#### **Transit**

Increase CAPACITY, SERVICE LEVELS, and SAFETY of transit systems. (Caltrain: track rehabilitation, station enhancements, faster and more trains, electrification) (SamTrans: feeder system to Caltrain and BART) (BART: model and analyze four scenarios to San Jose; test for cost-efficiency)

#### **Land Use**

Increase SUPPLY and DENSITY of housing and employment in transit corridors. (Transit Oriented Development)

## **Transportation Systems Management**

Increase programs to reduce the demand for SINGLE OCCUPANT AUTOMOBILE travel. (Ridesharing, shuttles, telecommuting, ramp metering)

## Pricing

Initiate modest pricing programs that cause a SHIFT from automobile to transit travel. (Eliminate free parking, pay for parking with a commute allowance in exchange)

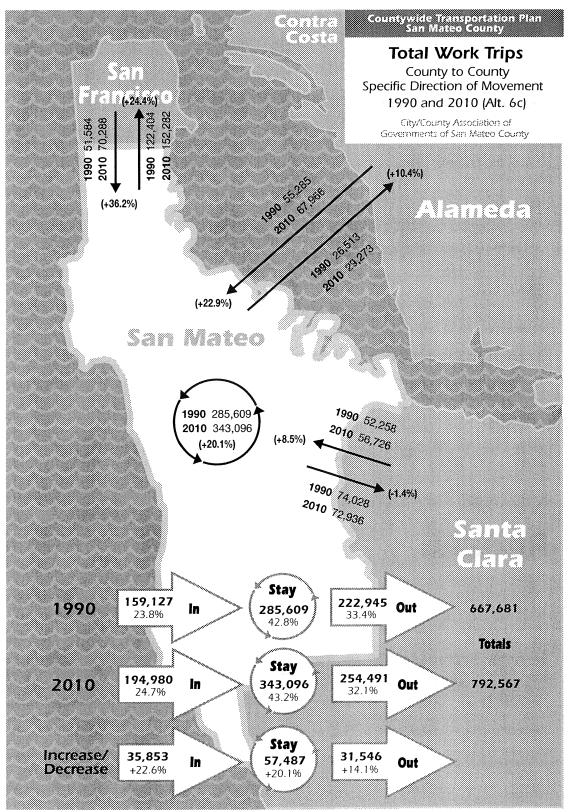
## **Results:**

# Market Share - Auto vs Transit (work trips)

	199		2010 Pro	jected	2010	Goal
Drive Alone	519,906	(77.9)	598,153	(75.5)	475,487	(60.0)
Shared	97,979	(14.7)	106,815	(13.5)	158,496	(20.0)
Transit	49,813	(7.5)	87,510	(11.0)	158,496	(20.0)
Totals	667,681	(100.0)	792,478	(100.0)	792,478	(100.0)

## **Commute Patterns**

Exhibit 1.1



cdr5\ctpwkt6c. pg17 ms rev 2/25/97

## **Commute Patterns**

## **Facts and Findings**

#### **Commuting**

In 2010, in and out-commuting will continue to be high in San Mateo county.

### **Out Commuting**

In 2010, as in 1990, a relatively high percentage (43%) of San Mateo County residents will commute to jobs in other counties. In 1990, this was the

highest percentage of out-commuting for any county in the Bay Area.

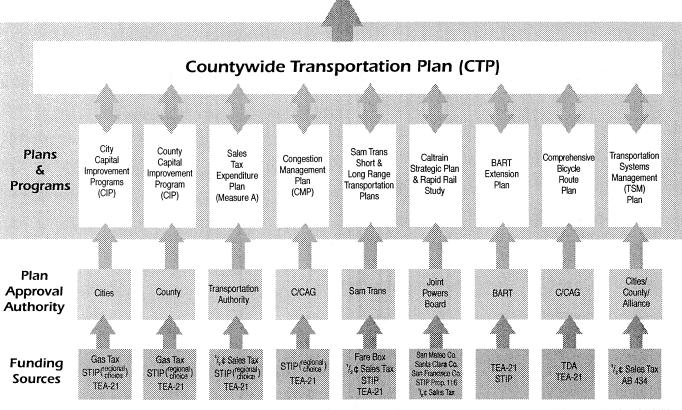
## In Commuting

In 2010, as in 1990, a relatively high percentage of workers (36%) in the County will be non-resident workers who commute in from other counties. In 1990, this was the second highest percentage of in-commuting for any county in the Bay Area.

Exhibit 1.2

## **Relationship of Transportation Plans**

Regional Transportation Plan (RTP)



cdr8\ctp rtp transplan chart.cdr 11/30/00 ss

## **Market Share**

Exhibit 1.3

Market Share (Trips) - 2010

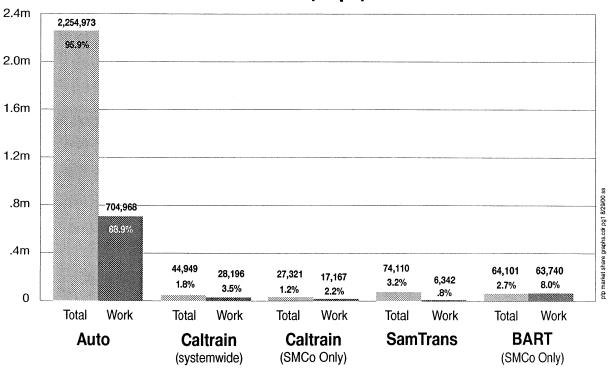
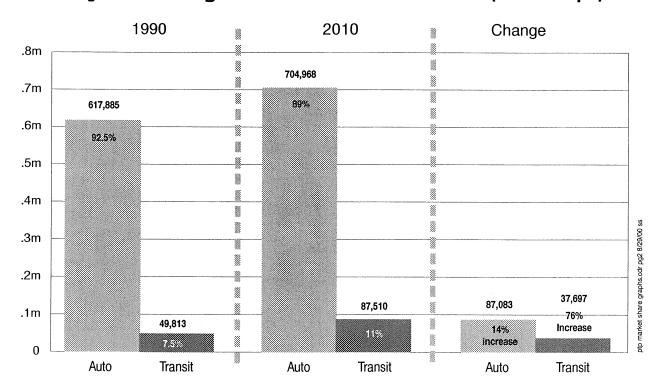


Exhibit 1.4

Projected Change Market Share 1990 - 2010 (Work Trips)



ptp market share graphs.cdr pg4 8/29/00 ss

## **Market Share**

Exhibit 1.5

Change in Market Share Goal (Work Trips)

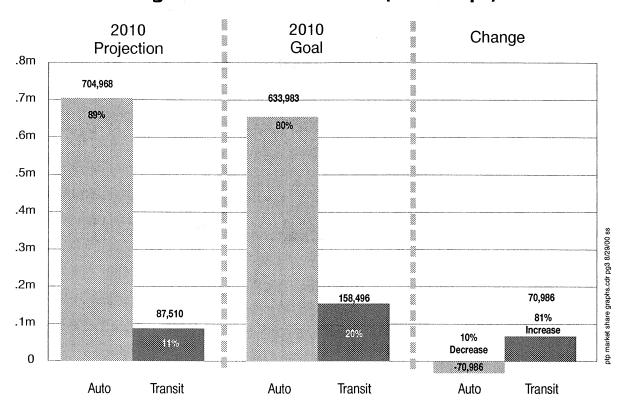


Exhibit 1.6

Comparison of Transit Market Shares

United States Re	gion	Bay Area Cou	nty
1990		2010	
New York	28%	San Francisco	36%
Washington D.C.	14%	San Mateo	11%
Chicago	14%	Alameda	10%
Bay Area	9%	Contra Costa	10%
Atlanta	5%	Marin	10%
Los Angeles	5%	Santa Clara	3%

## **Land Use**

## **Major Findings**

## Land Use Impacts on Congestion

Land use patterns and densities have a significant effect on congestion.

Adding 10,000 more housing units than allowed by General Plans may increase the number of automobile trips; however, it potentially relieves congestion, because more people can live closer to their jobs.

Adding more housing units in transportation corridors may relieve congestion, because more people can live closer to their jobs and transit becomes a more attractive mode of transportation.

Reducing job growth in the County by 25,000 jobs significantly reduces congestion.

### **Housing Shortfall**

In 2010, there will be a shortfall of 15,600 to 20,600 housing units in the County.

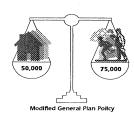
Ninety (90) percent of the shortfall will be for rental units. Ninety-five (95) percent of the shortfall will be for households with incomes less than \$43,000 (1996 dollars).

#### Relieving Congestion through Jobs-Housing Balance

★ If cities help create congestion problems by adding more jobs...

★ then cities can help solve congestion problems by supplying more housing.





## **Key Policies**

## Integration of Land Use and Transportation Planning

Integrate land use and transportation planning.

### **Fiscal Land Use Planning**

Promote new State property tax, sales tax, and revenue sharing legislation that would increase incentives for better land use planning.

Discourage land use planning in which decisions are primarily influenced by fiscal considerations.

## **Jobs/Housing Equation**

Promote the creation of enough ownership and rental housing units at prices affordable to meet the needs of existing or potential households who work in the County.

Strongly encourage the creation of housing units in or near jurisdictions which have an excess of jobs.

Strongly encourage the creation of jobs in or near jurisdictions which have an excess of housing units.

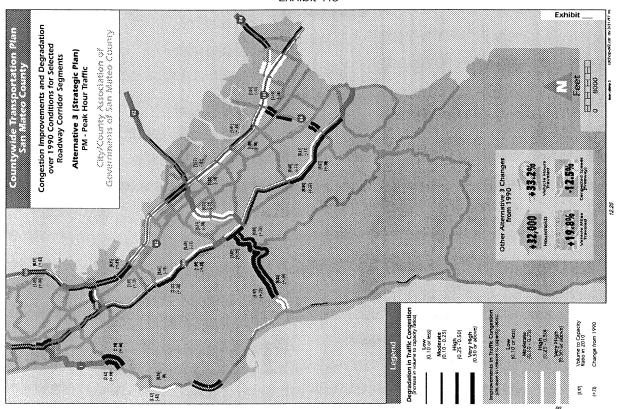
Discourage creation of jobs in or near jurisdictions which have an excess of jobs over housing.

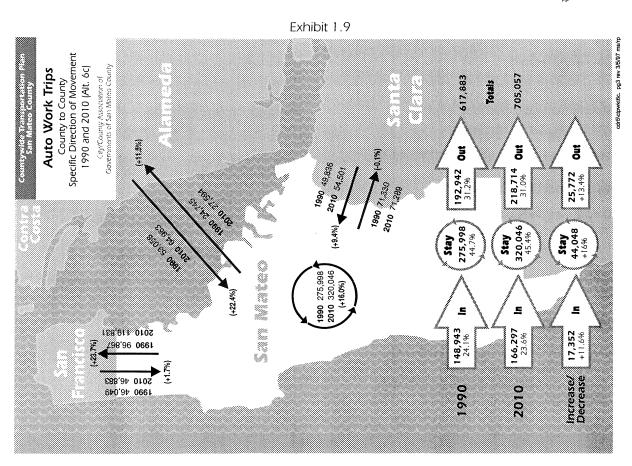
#### **Transit Oriented Development**

Promote high density residential, employment, and mixed-use development in transit corridors throughout the County.

Promote the redevelopment of city cores along and near the Caltrain and BART systems as not only retail but employment and housing centers.

Exhibit 1.8





## Roads

## **Major Findings**

## **Total Automobile Trips**

The automobile is currently the dominant mode of travel in the County (97 percent of all trips) and will remain the dominant mode of travel (95 percent of all trips) in 2010.

## **Automobile Work Trips**

The automobile is currently the dominant mode of travel in the County for work trips (94 percent), but transit improvements (e.g.: BART SFO Extension, Caltrain improvements) will reduce its dominance to 89 percent of work trips.

#### Strategic Plan Projects

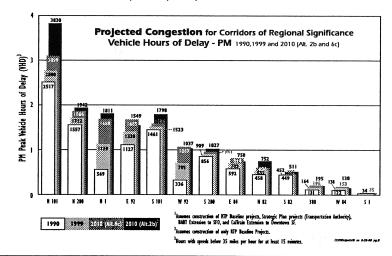
The Transportation Authority's Strategic Plan projects (e.g.: auxiliary lanes, interchange improvements) are significant highway improvements, because they make 2010 conditions on many segments of 101 better than those of 1990 and help relieve growing congestion on 101

## Congested Corridors - Measured in Vehicle Hours of Delay

In 2010, the most congested corridors will be: N 101 (22% of all congestion), N 280 (13% of all congestion), N 1 (12% of all congestion), E 92 (12% of all congestion), and S 101 (11 percent of all congestion).

## Congested Corridors - Measured in Volume to Capacity Ratios

In 2010, the most congested corridors will be: W 92, S 101, N 101, 380, and E 84.



## **Key Policies**

## Priorities for Types of Roadway Strategies and Improvements

Give priorities to improvement projects which are projected to be the most congested in 2010. Set the following priorities for addressing roadway congestion:

- Pursue strategies to reduce automobile travel demand (i.e.: TDM).
- Make operational and safety improvements to increase efficiencies of existing roadways.
- Make maintenance and rehabilitation improvements to improve conditions of existing roadways.
- Make capacity improvements.

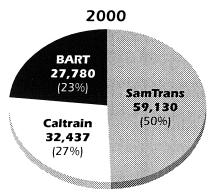
## Priorities for Location of Roadway Improvements

Give priority to improvement projects which are in the most congested corridors. Set the following priorities for making operational, safety, maintenance, rehabilitation, and capacity improvements in roadway segments:

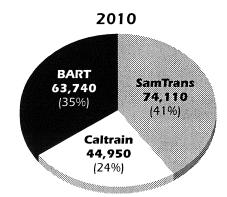
- Existing segments at LOS F.
- Existing segments with high Vehicle Hours of Delay.
- Projected segments at LOS F.
- Projected segments with high Vehicle Hours of Delay.

Exhibit 1.10

# Change in Transit Market Share 2000 - 2010 Total Trips



Total: 119,347



Total: 182,800

Exhibit 1.11

Roles of	Major Transit Modes
SamTrans	<ul> <li>❖ Short-distance feeder service to CalTrain and BART stations</li> <li>❖ Short-distance service from City to City</li> <li>❖ Short-distance service to transit dependent populations within County</li> </ul>
CalTrain	<ul> <li>Long-distance commuter service to SF and Silicon Valley</li> </ul>
BART (to Millbrae)	Short-distance commuter service to SF and SFI/
BART (to San Jose)	<ul> <li>Long-distance commuter service to SF,</li> <li>Silicon Valley, and East Bay</li> </ul>
High Speed Rail	Long-distance transit service between SF and LA.
ngn speed nan	Fast long-distance commuter service to and from SF, Peninsula, and Silicon Valley.

ctp future transit.cdr 10/29/99 rp

## **Transit**

## **Major Findings**

## **Projected Ridership**

In 2000, total transit ridership is 119,347 trips per day.

In 2010, total projected transit ridership is 182,800 trips per day.

In 2010, total projected transit ridership is 4 percent of market share.

In 2010, projected work ridership is 11 percent of market share.

#### **Projected Caltrain Ridership**

Between 2000 and 2010, Caltrain ridership is projected to increase 12,513 (39 percent increase) from 32,513 to 44,950.

Caltrain market share among transit systems will decrease from 27 to 24 percent.

Ridership increases are due to a service level of 86 trains and 25 percent reduction in travel times.

## **Projected BART Ridership**

Between 2000 and 2010, BART ridership is projected to increase 35,960 (129 percent increase) from 27,780 to 63,740.

BART market share among transit systems will increase from 23 to 35 percent.

Ridership increases are due to the BART SFO and Millbrae Extension.

90% of BART trips will be work trips.

#### **Projected Sam Trans Ridership**

Between 2000 and 2010, SamTrans ridership is projected to increase 14,980 (25 percent increase) from 59,130 to 74,110.

SamTrans market share among transit systems will decrease from 50 to 41 percent.

## **Key Policies**

## **Performance Objectives for a Comprehensive Transit System**

Market Share - Increase transit system market share in 2010 (i.e.: percentage of transit trips) from a projected 11 to 20 percent for work trips and from a projected 5 to 10 percent for all trips.

**Capacity** - Increase transit system capacities (i.e.: rolling stock, frequency, ridership).

**Cost Effectiveness** - Ensure cost effectiveness of transit system improvements and operations.

Performance - Increase transit system performance (i.e.: reliability, convenience, comfort, safety).

**Transit Time** - Decrease rail transit travel times by at least 25 percent. Decrease transit system travel

times to 45 minutes between San Jose and San Francisco.

Access - Increase transit system access (i.e.: automobile, bus, bicycle).

Integration - Increase integration of transit system modes (i.e.: connections, linkages, transfers, passes).

**Duplication** - Avoid duplication within the transit system (i.e.: redundancy, competition).

## **Caltrain**

## **Major Findings**

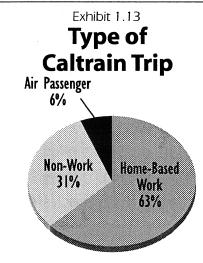
## **Projected Ridership**

In 2000, ridership is 32,437 trips per day. In 2010, maximum ridership could reach 52,000 trips per day (58 percent increase).

## **Effectiveness of Specific Improvements**

The improvements which increase ridership the most are:

- Increasing daily trains from 60 to 86 generates
   11,711 new riders at a cost of \$ million.
- Building the San Francisco Downtown Extension generates 7,439 new riders at a cost of \$800 millions or \$107,541 per new rider.
- Reducing travel times by 25 percent generates 6,662 new riders at a cost of \$533 millions or \$80,006 per new rider.



## **County to County Work Trips**

In 2010, the major linkages in County to County work trips will be from:

- San Mateo County to San Francisco County: 12,779 work trips, 43 percent market share, 46 percent increase over 1990, 40 percent of growth.
- Santa Clara County to Santa Clara County: 6,566 work trips, 22 percent market share, 71 percent increase over 1990, 32 percent of growth.

## **Key Policies**

## **First-Class System**

Develop Caltrain into a first-class rail system for the 21st Century.

#### **Express Trains**

Invest in increasing the number of express trains per day which reduce run times in order to maximize ridership.

#### **Run Time Reductions**

Fund capital improvements that result in faster run times.

## **Policy Resolution**

Encourage the Joint Powers Board and the Transportation Authority to resolve policy differences for Caltrain improvements.

## **BART**

## **Major Findings**

## **Projected Ridership**

In 2000, ridership is 27,780 trips per day.

In 2010, after the BART SFO and Millbrae Extension is complete, projected ridership is 64,000 trips per day (100 percent increase).

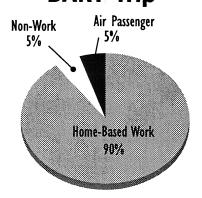
### **Auto Work Trip Reduction**

In 2010, the BART SFO and Millbrae Extension will reduce auto work trips by 27,240 (3.7 percent decrease).

#### **County to County Work Trips**

2010, the major linkages in County to County work trips will be from:

 San Francisco to San Mateo County: 21,201 work trips, 33 percent market share, 3,760 percent increase over 1990, 50 percent of growth. Type of BART Trip



- San Mateo to San Francisco County: 20,902 work trips, 33 percent market share, 11 percent increase over 1990, 5 percent of growth.
- San Mateo to San Mateo County: 17,342 work trips, 27 percent market share, 42 percent of growth.

## **Key Policies**

## **Analysis of Potential Alternatives**

During the next two years, analyze the feasibility of potential BART extensions south of Millbrae, forecast travel demand, estimate costs, conduct cost-benefit analyses, determine funding availability and length of time for implementation.

## Justification for a BART Extension South of Millbrae

Consider a BART extension south of Millbrae only if analysis shows that:

- BART generates net new transit riders thereby increasing total transit trips, and
- The number of net new riders demonstrates its cost-effectiveness.

Exhibit 1.16

## **SamTrans**

## **Major Findings**

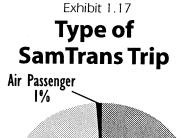
## **Projected Ridership**

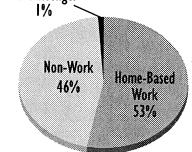
In 2000, ridership is 59,130 trips per day (50% of transit ridership).

In 2010, projected ridership is 74,110 trips per day (41% of transit ridership)

SamTrans serves a large population who do not have the means or the ability to drive.

Of all transit modes, SamTrans has the highest percentage (46%) of non-work trips.





## **Key Policies**

## **Feeder System**

Provide "feeder" bus service to CalTrain and BART stations.

## **Transit Dependent Population**

Provide bus service for the transit dependent population

## **High Speed Rail**

## **Major Findings**

If funded, high-speed rail would most likely not occur until after 2020.

There are many opportunities for CalTrain to coordinate its improvements with a high-speed rail system that would run in the same right-of-way.

## **Key Policies**

## **Coordinated Planning**

Ensure coordination of high-speed rail and CalTrain planning. Coordinate service frequency, capacity, station location and design, compatibility of technology, and financial agreements.

## Coordination with CalTrain Improvements

Ensure that CalTrain improvements do not preclude or hinder potential development of high-speed rail in the CalTrain right-of-way and visa versa.

## **Ferries**

### **Major Findings**

#### **Projected Ridership**

To date, travel demand for ferry travel is inconclusive and contradictory.

#### Locations

The two most likely terminals for ferry travel are South San Francisco (Oyster Point Marina) and Redwood City ( Port of Redwood City).

### **Key Policies**

Support future travel demand studies to determine the projected demand for ferry travel to and from San Mateo County.

Support cost-effective ferry service that does not duplicate or compete with other transit systems.

## **Bikeways**

## **Major Findings**

#### **Projected Ridership**

In 1990, ridership was 2,606 work trips per day (0.75% of market share).

In 2010, projected ridership is 17,077 work trips per day (1.5% of market share).

## Existing System

Currently, the County does not have a extensive or well connected system of bikeways.

Most cities have system comprised of disconnected bike lanes and bike routes.

Menlo Park and Foster City have the most extensive bikeway systems.

## **Key Policies**

#### **Travel Demand**

Increase the use of bicycles as a travel mode by developing a comprehensive bikeway system which effectively connects residential areas to employment centers, retail centers, transit stations, and institutions.

#### Integration

Develop a bikeway system which is fully integrated with other transit modes (i.e. connections to Caltrain, bicycle lockers).

Provide more incentives for integrating bicycle and transit modes.

## **Pedestrian**

## **Major Findings**

San Mateo County has a high "Pedestrian Danger Index" according to the Surface Transportation Policy Project.

Most employment centers in the County have poor pedestrian access.

Transit and freeway right-of-ways are often major impediments to safe pedestrian travel.

## **Key Policies**

## Land Use and Urban Design

Encourage cities to promote land use patterns and developments that make walking a viable and inviting mode of travel.

#### Safety

Encourage cities to identify locations where pedestrian movement is dangerous and make appropriate improvements.

## **TSM**

## **Major Findings**

TSM techniques have minimal effects at reducing congestion when implemented individually. TSM techniques are much more effective when implemented through coordinated, regionwide programs.

### **Key Policies**

#### **Comprehensive Approach**

Employ a comprehensive set of transportation system management techniques to increase the efficiency of the existing transportation network and reduce single-occupant automobile trips.

#### Transportation Systems Management Improvements

Support improvements such as: (1) expanded MTC sponsored Freeway Service Patrol on 101, 280, and 92, (2) ramp metering, (3) synchronized, interconnected traffic signals on major arterials, (4) park and ride lots, and (5) intelligent transportation systems.

#### **Transportation Demand Management**

Support programs and projects to reduce demand for travel by automobile such as: (1) ridesharing (carpools and vanpools), (2) HOV preferential parking, (3) flexible work hours, (4) telecommuting, and (5) transit oriented development.

#### Shuttles

Expand Caltrain and BART shuttle bus service to employment sites to meet demand.

Develop a stable reliable source of funding for shuttle bus services.

Encourage BAAQMD to increase 434 funds for shuttle bus services.

Expand and enhance outreach efforts to increase employer participation and financial support in shuttle bus services.

Encourage the consolidation of the management of shuttle bus services, including airport-hotel shuttles in areas with clustered hotels.

#### **Commute Subsidies**

Encourage employers to offer commute subsidies for transit, carpools, vanpools, and bicycles.

## **Pricing**

## **Major Findings**

#### **Effectiveness**

Congestion pricing is generally considered the most effective way of reducing the demand for automobile travel, because it increases the individual costs of driving and makes transit more competitive.

Congestion pricing is politically extremely unpopular.

#### **Key Policies**

#### **Congestion Pricing**

Support and encourage regional efforts to adopt and implement equitable congestion pricing programs to reduce automobile travel.

#### **Cash-Out Programs**

Encourage the public and private sector to adopt parking cash-out programs.

#### Exhibit 1.18

## **Estimated Total Costs of Major Capital Improvement Programs** and Anticipated Revenue Sources 2000 - 2010

8 \*

8

8 \*

\*

\*\*\*

8 \* \*

8

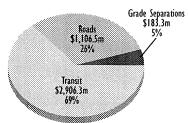
88 88

88

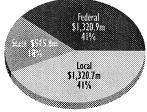
388

\*





Capital **Improvement Plans** \$4,196.1 m

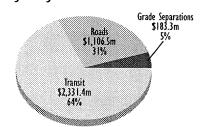


**Anticipated Funding Sources** \$3,187.4m

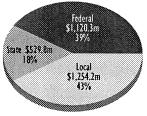
#### Shortfall

\$4,196.1m Capital Improvement Plans - 3,187.4m Anticipated Funding Sources \$1,008.7m

#### San Mateo County Only Costs for CalTrain



Capital **Improvement Plans** \$3,621.2m



**Anticipated Funding Sources** \$2,904.3m

#### Shortfall

\$3,621.2m Capital Improvement Plans - 2,904.3m Anticipated Funding Sources \$ 716.9m

#### Exhibit 1.19

	*******************************			LAH	DIL 1.	1 /								
Commission Financial Composition Financial C										10				
(in millions)  Cost Bevenue Shortfill  Programs Local State Federal Total										(Impagement)				
													Transportation Authority Strategic Plan Roadway Projects	669.1
Local Streets and Roadways Projects	437.4	(1.00)	100.0	(0.23)	132.0	(0.30)	70.0	(0.16)	302.0	(0.69)	135.4	(0.31)	0.0	(0.00)
Transportation Authority Grade Separation Projects	183.3 <sup>1</sup>	(1.00)	168.3	(0.92)	15.0	(0.08)	0.0	(0.00)	183.3	(1.00)	0.0	(0.00)	98.0	(0.53)
<b>Joint Powers Board Caltrain Rapid Rail Plan</b> (Three Counties)	862.3	(1.00)	99.7	(0.12)	24.0	(0.03)	300.9	(0.35)	424.6	(0.50)	437.7	(0.50)	0.0	(0.00)
<b>Joint Powers Board Caltrain Rapid Rail Plan</b> (San Mateo County only)	287.4	(1.00)	33.2	(0.12)	8.0	(0.03)	100.3	(0.35)	141.5	(0.50)	145.9	(0.50)	0.0	(0.00)
"Baby Bullet Program" (Three Counties)	127.0	(1.00)	0.0	(0.00)	127.0	(1.00)	0.0	(.0.00)	127.0	(1.00)	0.0	(0.00)	0.0	(0.00)
Other Caltrain Projects (San Mateo County only)	144.0° (	(1.00)	144.0	(1.00)	0.0	(0.00)	0.0	(0.00)	144.0	(1.00)	0.0	(0.00)	63.2	(0.44)
SamTrans Capital Improvement Plan *20 years	413.0	(1.00)	213.0	(0.52)	0.0	(0.00)	200.0	(0.48)	413.0	(1.00)	0.0	(0.00)	0.0	(0.00)
BART Extension Plan	1,360.0 (	(1.00)	458.0	(0.34)	152.0	(0.11)	750.0	(0.55)	1,360.0	(1.00)	0.0	(0.00)	0.0	(0.00)
<b>Fotal Cost</b> (includes three County costs for Caltrain)	4,196.1 (	(1.00)	1,320.7	(0.32)	545.8	(0.13)	1,320.9	(0.31)	3,187.4	(0.76)	1,008.7	(0.24)	161.2	(0.04)
Total Cost (includes San Mateo County only costs for Caltrain)	3,621.2 (	(1.00)	1,254.2	(0.35)	529.8	(0.15)	1,120.3	(0.31)	2,904.3	(0.80)	716.9	(0.20)	161.2	(0.05)

<sup>1</sup> Includes Dumbarton @ \$60.0m

vpdata/policy/ptp funding sources vp(8) 8/23/00 ss/rev. rp (wp doc:MLD:kcd - MLDK1215\_WKT.DOC (8/11/2000)

Includes Station Improvements @ \$75.0m, and SFO Airtrain @ \$63.0m
 Includes Downtown Extension FEIR @ \$0.56m

## **Financial**

## **Major Findings**

## **Costs and Revenues of Major Capital Improvement Programs**

The total cost of major capital improvement programs for San Mateo County total \$3.6 billion. Anticipated funding sources for these programs total \$2.9 billion. Thus, there is a shortfall of \$717 million.

#### **Shortfalls**

Shortfalls will occur in three capital improvement programs: (1) Transportation Authority Strategic Plan Roadway Projects (\$435.6 million), (2) Local Streets and Roads Projects (\$135.4 million), and Joint Powers Board CalTrain Rapid Rail Plan (\$141.9 million San Mateo County only).

## **Key Policies**

#### CalTrain Shortfall

Over the next 10 years, fully fund San Mateo County's share of the CalTrain shortfall with unprogrammed Measure A funds for CalTrain and Measure A funds for the SFO AirTrain.

#### **TA Strategic Plan Roadway Projects**

Over the next 10 years, use State Transportation Improvement Program funds to reduce the shortfall of Strategic Plan roadway projects from \$435.6 million (65% of total cost) to \$370.4 million (55% of total cost).

#### Extension of Measure A

Support the extension of Measure A beyond 2008.



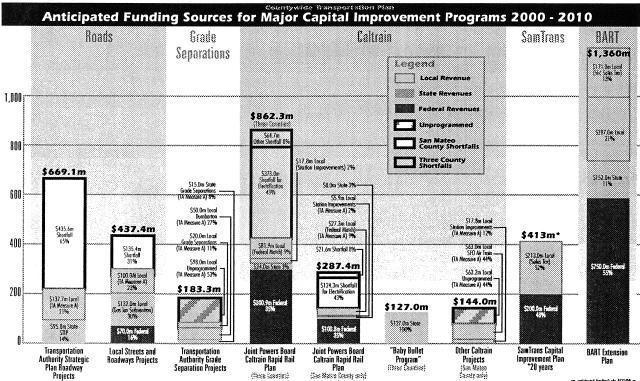


Exhibit 1.20

exec summary2.cdr 10/26/00 ss

## **Effectiveness of Congestion Relief Policies**

Exhibit 1.21

	Effectiveness	Co	h_85.* _ x 101011	
	FLIOCHAGUESS	Individual	Societal	Political Will
ROADWAY IMPROVEMENTS	-		_	
Build new roads	2	0	3	1
Build auxiliary lanes	2	0	3	33
Build interchange improvements/grade separation projects	2	0	3	3
Build bicycle lanes	1	0	2	2
Increase road maintenance	1	0	1	3
TRANSIT IMPROVEMENTS				
Build transit system expansions	2	1	3	2
Improve service (i.e., reduced headways, shuttle bus improvements, run time reduction)	2	0	2	3
TRANSPORTATION SYSTEM MANAGEMENT (TSM)	_			_
Rapidly remove accidents	3	0	1	3
Convert existing highway lanes into HOV lanes	2	0	1	1
Install ramp metering	2	0	1	2
Install intelligent transportation infrastructure (ITI) (e.g., coordinated signals, TV monitoring, electronic signs)	1	- }- 0	1	3
Build park and ride lots	1	0	1	2
Promote ridesharing	1	0	1	2
Encourage telecommuting	1	0	0	3
Promote staggered work hours	1	0	0	2
Provide preferential HOV parking	1	0	1	2
LAND USE			1	
Promote high-density, mixed-use development pattern	2	0	1	1
Increase land use densities near transit stations and corridors	2	0	1	2
Adopt development design standards that promote alternative modes of transportation	2	0	1	2
Enforce urban/rural boundary	2	0	1	2
Improve jobs-housing match	2	0	2	2
PRICING			l e e e e e e e e e e e e e e e e e e e	
Develop comprehensive road user fee system	3	3	0	0
Charge peak-hour tolls on major limited access bridges and highways	3	3	0	1
Develop pay-for-permit system for access to high-intensity areas	2	3	0	0
Increase automobile license fees	2	2	0	1
Establish "Cash-Out" programs	2	1	1	1
TAXES	1 1		l .	l .
Adopt parking tax	3	3	0	1
ncrease fuel tax	2	3	0	2

Key: 3 = High; 2 = Moderate; 1 = Low; 0 = None

Source: Anthony Downs, Stuck in Traffic (1992); County of San Mateo Environmental Services Agency

## **Key Entities for Implementing Policies**

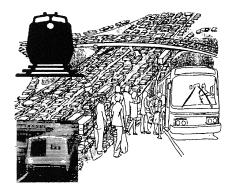
Exhibit 1.22

	EXHID	IT 1.ZZ	-					
Key Entities for Implementing	ig Tra		8000	2511011	Regio.		Politate	
	Cities/ County	C/CAG	Transpor- tation Authority	SamTrans/ JPB/BART	Regional Agencies (MTC, ABAG, BAAQMD)	CalTrans	State/ Federal Government	Public and Private Employers
ROADWAY IMPROVEMENTS								
Build new roads		V	V		V	V	V	
Build auxiliary lanes		V	V		V	V	V	
Build interchange improvements/grade separation projects	V	1	V		V	<b>V</b>	V	
Build bicycle lanes	1	V	V		V	V	V	
Increase road maintenance	V	V	V		7	V	V	
TRANSIT IMPROVEMENTS								
Build transit system expansions				V	<i>V</i>		V	
Improve service (i.e., reduced headways, shuttle bus improvements, run time reduction)				V	V		V	
TRANSPORTATION SYSTEM MANAGEMENT (TSM)								
Rapidly remove accidents			V					
Convert existing highway lanes into HOV lanes			V		<i>V</i>	<u> </u>		
Install ramp metering			<i>V</i>		V	<b>V</b>		
Install intelligent transportation infrastructure (ITI) (e.g., coordinated signals, TV monitoring, electronic signs)	V		V		V	V		
Build park and ride lots			V	<b>V</b>		<b>V</b>		
Promote ridesharing	1							V
Encourage telecommuting	1							V
Promote staggered work hours	7							V
Provide preferential HOV parking	V							V
LAND USE								
Promote high-density, mixed-use development pattern	1							
Increase land use densities near transit stations and corridors	V							
Adopt development design standards that promote alternative modes of transportation	V							
Enforce urban/rural boundary	1							
Improve jobs-housing match	7							
PRICING								
Develop comprehensive road user fee system					V	V	V	
Charge peak-hour tolls on major limited access bridges and highways					V	V	1	
Develop pay-for-permit system for access to high-intensity areas	V				V			
Increase automobile license fees							V	
Establish "Cash-Out" programs	7				V			V
TAXES								
Adopt parking tax					V			
Increase fuel tax					V		V	
		<u> </u>						

<sup>\*</sup>Implementing: Building , Funding, and/or Approving Projects and Programs

# dhapter 2

## **Overview**



#### II. OVERVIEW

#### A. INTRODUCTION

The County's first ever Countywide Transportation Plan (CTP) is the culmination of over four years of research, analysis, and ongoing discussion with the County's Transportation and Land Use planning agencies and political and community leaders. The CTP presents policies and programs that guide the way in which the County's transportation network takes shape over the next twenty years. The following sections present the purpose of the CTP, the relationship of the CTP with other transportation plans, the CTP's key goals and objectives, and an outline of how the document is organized.

#### B. WHAT IS THE COUNTYWIDE TRANSPORTATION PLAN?

The Countywide Transportation Plan:

- Plans for all modes (roads, Caltrain, SamTrans, BART, bicycles).
- Looks at all modes as one system.
- Advocates policy, not projects; it is not a capital improvement program.
- Derives policy from understanding the relational interaction between the modes.
- Strives for synergy among the parts of the transportation system: the whole is greater than the sum of the parts.
- Seeks to develop the parts of the system to the optimal size, rather than the maximum.
- Provides critical information to help make informed decisions.
- Recognizes the complex decision-making structure of transportation planning in San Mateo County.
- Seeks to coordinate decision-making, relying on cooperation and not enforcement.

## C. PURPOSE OF THE COUNTYWIDE TRANSPORTATION PLAN

Transportation and land use planning and programming in San Mateo County is implemented by a multitude of agencies with various responsibilities. The San Mateo County Transit District (SamTrans) oversees the County's bus transit system, the Peninsula Corridor Joint Powers Board (JPB) administers planning and operations for the Caltrain commuter train system, and the San Mateo County Transportation Authority (TA) is responsible for programming the local sales tax. The City/County Association of Governments of San Mateo County (C/CAG), as the County's Congestion Management Agency (CMA), administers the State-mandated Congestion Management Program, whose primary purpose is to monitor and control traffic congestion and program capital improvements on selected State highways. As the CMA, C/CAG also allocates the State and Federal transportation funds provided to San Mateo County. In addition, the County and the twenty cities within its boundaries each plan and implement improvements to local roadways within their own jurisdictions and land use that can impact the transportation network.

The Countywide Transportation Plan is unique in two respects:

- The CTP provides a plan that looks at all modes (roads, Caltrain, SamTrans, BART, bicycles) as one system.
- The CTP provides a set of strategies to optimize the transportation system for all agencies to use to guide various agency decision-making.

The CTP recognizes the complex decision-making process and is striving to provide a plan that will get everyone on the same page. This could enhance the coordination between agencies.

The Countywide Transportation Plan was conceived by County political leaders as a way to provide the County with a long-range, comprehensive transportation planning document that sets forth a coordinated planning framework and establishes a systematic transportation planning process for identifying and resolving transportation issues. The CTP is intended to articulate clear transportation planning objectives and priorities and to promote consistency and compatibility among all transportation plans and programs within San Mateo County. By doing so, the CTP will support an integrated systemwide approach to transportation planning that gives proper consideration to the countywide transportation network as a whole, not just its individual parts. The CTP will

serve the additional purpose of forming the basis for San Mateo County's component of the Regional Transportation Plan, the transportation funding plan prepared by the Metropolitan Transportation Commission (MTC) every two years.

#### D. RELATIONSHIP OF THE CTP TO OTHER TRANSPORTATION PLANS

A number of public agencies independently produce strategic/tactical plans for specific components of the transportation system in San Mateo County. Each plan considers only that portion of the County transportation network for which the authoring agency is responsible. Therefore, consideration of how individual plans can work together to improve mobility throughout the entire County may not be addressed. Agencies also may end up competing with one another for limited transportation funds. The primary purpose of the CTP is to serve as a central coordinating document that provides overall policy and program direction for all transportation plans in the County. The CTP is not intended to duplicate or replace other plans, but instead it establishes broad principles that should influence the preparation of other plans and promote a high level of interdependence among them. This approach recognizes, respects, and utilizes the roles of all the stakeholders. It provides a broad strategy or policy that the stakeholders will take into consideration as the tactical implementation plans are developed. An important aspect of the CTP is that it takes into account all of the County's transportation modes and how they relate to one another, while other plans are concerned only with a single mode, such as transit or autos. The relationship between the CTP and the County's transportation agencies, plans and programs is shown in Exhibit 2.1. The following summarizes the County's key transportation plans.

#### 1. Short Range Transit Plans

All transit agencies in FTA Region IX are required to prepare Short Range Transit Plans (SRTPs) in order to obtain Federal funds. The SRTP establishes operating plans and provides the foundation for capital improvement programs and financial plans. The plans are updated biennially, and are reviewed by MTC for consistency with the Regional Transportation Plan and incorporated into it.

# 2. Rapid Rail Study

The Peninsula Corridor Joint Powers Board has completed the Caltrain Rapid Rail Study, which sets forth a comprehensive approach for improving and expanding the railroads physical infrastructure. The goals of the study are to increase safety, customer service, ridership, financial stability, multi-modal linkages, station access, and decrease noise and pollution. Proposed areas of improvement include track rehabilitation, electrification, service and operations enhancements, and expansion. The study estimates a cost of \$862 million for all of the proposed improvements, with a corresponding increase in ridership and travel time savings of 21 percent.

# 3. <u>Transportation Systems Management Plan</u>

The County has had a Transportation Systems Management (TSM) Plan in place since 1990. The purpose of this plan is to review TSM techniques and present a strategy for TSM program implementation in San Mateo County. As such, the TSM Plan should be considered an implementation tool for carrying out the policies contained in the CTP.

# 4. Congestion Management Program

State law requires that each County develop a Congestion Management Program (CMP) to qualify for State transportation funds. The CMP must establish levels of service standards for roadways, set transit service standards, develop trip-reduction and travel demand management programs, perform land use impact analyses, formulate capital improvement programs and monitor conformance in the County with the CMP. The CTP is intended to complement the CMP, providing a comprehensive, long-term perspective, while the purpose of the CMP is to be a vehicle for implementing the CTP in the short term through its project priority and programming function.

# 5. Regional Transportation Plan

The Regional Transportation Plan (RTP), prepared by the Metropolitan Transportation Commission every two years, is the Bay Area's regionwide transportation planning document. The RTP is a blueprint for transportation

funding twenty years into the future. According to State Law, each County's CTP is supposed to serve as the primary basis for its portion of the RTP. Upon review of CTPs, MTC incorporates plan proposals and policies of regional significance. MTC also reviews CMPs for consistency with the CTP.

# 6. <u>City/County Capital Improvement Programs</u>

Local governments create capital improvement programs (CIP) to address their physical infrastructure needs. The CIP is a list of projects or goods that the various departments of a jurisdiction request and reflects the local priorities. While CIPs can include any kind of physical project, they tend to focus on road improvement and maintenance. Sometimes the CIP is created as part of a larger planning effort, but this is not always the case.

# 7. Sales Tax Expenditure Plan (Measure A)

In 1988, County voters passed Measure A, a one-half cent sales tax increase, to finance specific road and transit improvements throughout the County. The Sales Tax Expenditure Plan sets priorities for spending the tax revenues. The San Mateo County Transportation Authority (TA) is responsible for developing and implementing the expenditure plan.

# 8. BART Extension Plan

In order to analyze various alternatives for its extension from Colma to San Francisco International Airport and Millbrae, the Bay Area Rapid Transit District completed an extension plan. The plan assessed the impacts of the extension on traffic congestion, BART ridership and environmental quality.

# 9. <u>Comprehensive Bicycle Route Plan</u>

The City/County Association of Governments (C/CAG) prepared a plan that identifies existing and proposed bicycle routes throughout the County. The plan identifies both recreational and commuter routes. The plan was completed in June 2000.

## E. ORGANIZATION OF THE CTP

The CTP is organized into seventeen chapters. Each chapter includes a discussion of key policies and a set of recommended policies, actions, and programs. Moreover, the roads and transit chapters present recommended infrastructure and service improvements.

In addition, the CTP is based on years of background research and analysis by project staff and contract consultants, much of which has been summarized in the following previously issued technical reports.

# 1. Existing Conditions Report (March, 1995)

A survey of existing conditions to be used as input into subsequent work products. Sections address socioeconomic conditions, land use, roads, transit, bicycle, air quality, commute patterns, and finance.

# 2. <u>Alternatives Report (First Edition, June, 1996; Second Edition, June, 1997)</u>

Documents the results of travel demand forecasting model analysis testing the impacts various future land use patterns and transportation improvements (i.e., roads and transit) would have on traffic congestion. In total, twenty-three different alternatives representing various combinations of land use patterns and transportation improvements were tested.

# 3. Policy Options Report (June, 1997)

Presents a clearinghouse of policies that could ultimately be included in the CTP. The policies are based on a review of local agency policies and an extensive literature review, and are presented in seven categories: roads, transit, land use, transportation system management (TSM), congestion pricing, parking pricing, and fuel taxes.

# 4. Evaluation of Alternatives (July, 1997)

Presents a scoring system staff developed for ranking the alternatives tested in the Alternatives Report, based on (1) the effectiveness of each alternative at relieving congestion, and (2) the effectiveness of each alternative at increasing transit trips and decreasing automobile trips.

# 5. Recommended Policy Approach (August, 1997)

Presents staff's recommendations for policies that should be included in the CTP.

## F. BIENNIAL UPDATES

In accordance with the MTC guidelines for County Transportation Plans, the County will consider updating the CTP every two years.

# G. WHAT IS THE IMPACT OF THE CTP?

The main objective of the Countywide Transportation Plan is to identify a transportation plan that will guide the decision-making in San Mateo County among all agencies. The CTP will be minimally effective if this does not occur. Adoption and agreement on the CTP will result in the following direction/impact:

- The CTP is a comprehensive systematic way of developing a unified position on the San Mateo County priorities for incorporation into the Metropolitan Transportation Commission (MTC) Regional Transportation Plan (RTP). Projects must be in the RTP in order to be eligible for State and Federal transportation funds.
- 2. The policies adopted will shape funding decisions and future staff actions/recommendations (from all agencies) that will be presented to the respective boards.
- 3. The Financial Chapter will identify key financial policy issues that need to be addressed and agreed upon by both TA and C/CAG to meet the long-term needs of the priority transportation projects.

- 4. The CTP will identify issues in the various tactical plans (TA Strategic Plan, Rapid Rail Plan, SamTrans Strategic Plan) for the TA/SamTrans/JPB Boards to consider and address. These issues include but are not limited to: assumptions on State/Federal funding, corridor priorities, effectiveness of specific projects and other issues.
- 5. Land use agencies (twenty cities and the County) will be encouraged to take transportation issues into consideration in making land use decisions.
- 6. Agreement on priority focus of State and Federal transportation funds may result in less funds available on a competitive basis.
- 7. It will influence the Congestion Management Program updates that will determine agency conformance. Non-conformance may result in the Prop. 111 gas tax being withheld as determined by the C/CAG Board.

# H. ROLES OF SPECIFIC AGENCIES

# 1. <u>C/CAG</u>

- a. Program State and Federal transportation funds to meet long-term commitment identified in CTP.
- b. Develop Congestion Management Plan updates consistent with CTP policies.
- c. Develop Land Use, Transportation System Management (TSM), and Transportation Demand Management (TDM) measures consistent with CTP policies.

# 2. TA

- a. Program local transportation funds to meet long-term commitment identified in CTP.
- b. Revise the Strategic Plan to take into consideration the shortfalls identified, effectiveness and emphasis identified in the CTP.

c. Take into consideration the strategies and emphasis in the CTP in defining a new Measure A program.

# 3. SamTrans

- a. Support the role identified in CTP for bus service as a major feeder to Caltrain and BART.
- b. Work with JPB to develop expanded shuttle programs.
- c. Serve transit-dependent population.

# 4. JPB

- a. Implement the Rapid Rail program including electrification.
- b. Work with SamTrans to develop expanded shuttle programs.

# 5. <u>Land Use Agencies</u>

- a. Work with C/CAG to Develop Land Use, Transportation System Management (TSM), and Transportation Demand Management (TDM) measures consistent with CTP policies.
- b. At C/CAG, support the State and Federal transportation funding priorities.
- c. Adopt policies and procedures that result in local decisions such that the agency is in conformance with the established Congestion Management Plan.

# I. <u>CTP CONTRIBUTORS</u>

The development of the Countywide Transportation Plan has been a collaborative effort among all the transportation and land use planning agencies in San Mateo County. The following agencies should be recognized for the significant contributions made in the development of the CTP.

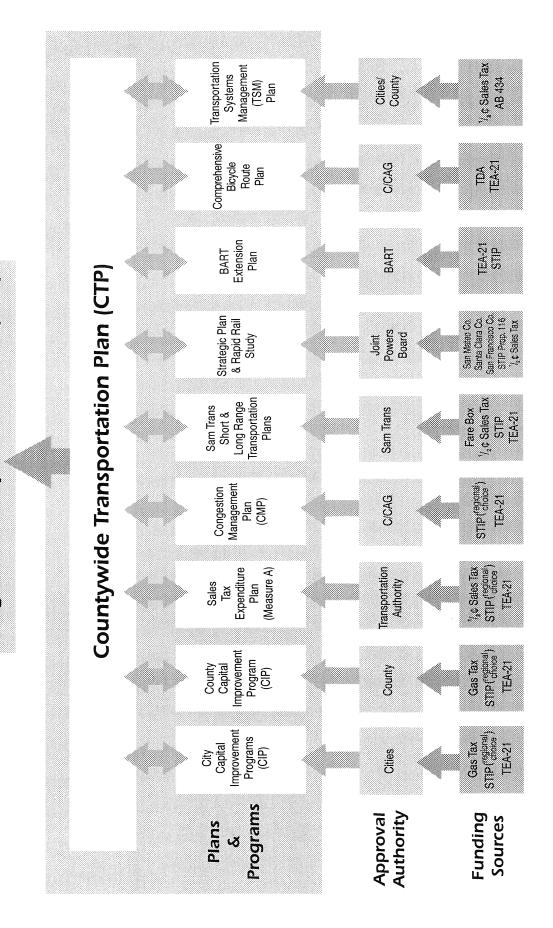
San Mateo County Transportation Authority (TA) San Mateo County Transit District (SamTrans) Peninsula Corridor Joint Powers Board (JPB) County of San Mateo Twenty Cities of San Mateo County

MD:fc - MLDK1722\_WFT.DOC (02/01/01)

Exhibit 2.1

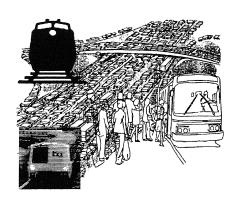
# Peninsula Transportation Plan 2010

# Regional Transportation Plan (RTP)



# Chapter 3

# Setting



## III. SETTING

# A. INTRODUCTION

San Mateo County has long been characterized by a string of suburban bedroom communities serving the regional employment centers of San Francisco and San Jose. These communities sprouted up around the turn of the century along the County's major north-south transportation corridors, El Camino Real, the commuter train right-of-way, and Highway 101, and grew rapidly through the housing boom of the post-World War II years. However, as will be explained in detail below, in the past five to ten years the County has become host to significant employment centers of its own, causing significant shifts in the demands placed on its transportation infrastructure. The following sections provide a survey of the County's existing land use patterns and transportation network, a discussion of historic and projected trends in population and employment, and data on the ways in which people utilize the County's transportation system, including existing conditions as well as projections of future travel characteristics.

# B. EXISTING LAND USE AND TRANSPORTATION NETWORK

## 1. Land Use

The County's geography can be thought of in terms of three distinct subareas: the substantially built-out Bayside plain, which is home to over 90 percent of the County's population and the vast majority of the County's employment base; Skyline Ridge, which is relatively sparsely populated with low-density residential subdivisions; and the Coastside, which is predominantly rural with the exception of Half Moon Bay and a few small (i.e., less than 5,000 residents each) unincorporated coastal communities. The County's land use patterns are explained in greater detail in the Existing Conditions Report.

# 2. <u>Transportation Network</u>

The transportation network is oriented on a north-south axis, with its backbone formed by the primary transportation corridors running the length of the Bayside plain: U.S. 101, the Caltrain right-of-way, and El Camino Real. Highway 1 is the main north-south artery serving the Coastside. Moreover, lateral access is

provided by several key east-west roadways, including Highways 380, 92, and 84, and other major city-maintained arterials.

In addition to roadways, the County's travel needs are served by the Caltrain commuter rail service which runs approximately adjacent to the El Camino Real corridor, SamTrans bus service which operates routes throughout the County, and BART, which has an extension from Colma to the San Francisco Airport and Millbrae slated for completion in the year 2004. Further, SamTrans, in cooperation with BAAQMD, and private businesses operate shuttle services whose primary purpose is to transport passengers from BART stations to nearby workplaces. Caltrain, in cooperation with BAAQMD, and local employers operate shuttles which serve Caltrain stations. Finally, the County is served by an extensive network of bike routes ranging from undesignated shared roadways to Class I separated bicycle right-of-ways. It should be noted, however, that a large portion of these bikeways are informal, and their availability and quality vary greatly from city to city.

# C. POPULATION AND EMPLOYMENT TRENDS

Exhibit 3.1 shows growth trends for San Mateo County from 1990 to 2010. The County has experienced substantial population and employment growth throughout the 1990s. However, while the County's population has grown considerably, increasing by 10 percent from 1990 to 1998, the big story has been with employment, which grew by 14 percent during the same period. Employment growth has been particularly strong in the past few years. Of the estimated 43,000 new jobs created from 1990 to 1998, over 35,000 have been created since 1995. This dramatic increase has come as a result of the region's economic recovery, and in particular, has been fueled by growth in the high technology and biotechnology sectors. A considerable portion of this growth has taken place to the east of Highway 101, from the Dumbarton Bridge north to South San Francisco.

As with the rest of the Bay Area, the influx of new residents and workers has placed a tremendous strain on San Mateo County's transportation network. Freeways in the County are more clogged than ever, with the congested peak commute period growing seemingly longer every day. In 1996, San Mateo County experienced a 126 percent increase in traffic congestion from the previous year (measured in terms of vehicle hours of delay), becoming the fourth most congested County in the Bay Area. In addition, the County's transit

systems, and Caltrain in particular, have been scrambling to meet the swelling demands of new ridership.

Compounding the transportation problems caused by overall population and employment growth is the fact that gains in employment in San Mateo County have greatly outpaced the increase in housing units. From 1990 to 1998, while the County's employment base grew by 14 percent, the number of housing units grew by only 4 percent. This mismatch between jobs and housing has caused already high housing prices to skyrocket and has contributed to a serious deficit of low- to moderate-income housing. More importantly from the transportation standpoint, it has forced many new workers to live in more affordable communities outside San Mateo County, greatly lengthening commute distances and further burdening the transportation system. San Mateo County currently suffers from some of the highest rates of in- and outcommuting in the Bay Area.

While growth rates are projected to taper off in the future, the absolute numbers present further challenges for transportation planning. From 2000 to 2010, the County's workforce is expected to grow by 31,000 employees, 4,000 of which will be generated by the San Francisco Airport Expansion, while the population is expected to increase by 43,000. In addition, the gap between jobs and housing is projected to widen, with jobs increasing 9 percent and households (a surrogate for housing units) increasing 6 percent. The following discussion on travel characteristics details how forecast growth is expected to impact the County's transportation network.

MD:fc - MLDK1359\_WFT.DOC (02/01/01)

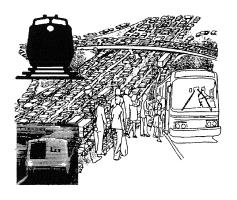
	PROJECTION	EXHIBIT 3.1 IS FOR POPULATION ANI SAN MATEO COUNTY 2000-2020	EXHIBIT 3.1 PROJECTIONS FOR POPULATION AND JOB GROWTH SAN MATEO COUNTY 2000-2020	TH.	
	2000	2002	2010	2015	2020
Population	737,100	767,100	779,700	795,700	809,800
Household Population	725,000	755,000	767,600	783,600	797,600
Persons Per Household	2.85	2.89	2.89	2.88	2.86
Households	254,370	260,870	265,610	272,070	278,500
Employed Residents	393,700	418,200	435,300	454,400	472,500
Median Household Income	\$88,700	\$95,200	\$100,100	\$104,800	\$109,100
Sqof	380,370	402,570	413,840	432,240	451,830

MD:fc – MLDK1360\_WFT.DOC (11/28/00)

# Chapter 4



# **Goals and Objectives**



# IV. GOALS AND OBJECTIVES

# A. GOALS OF THE COUNTYWIDE TRANSPORTATION PLAN

- 1. Improve mobility.
- 2. Reduce congestion.
- 3. Increase access.
- 4. Improve air quality.
- 5. Increase economic vitality.
- 6. Improve the coordination of land use and transportation planning.
- 7. Increase reliability.
- 8. Increase safety.

### B. OBJECTIVES

- 1. Improve transportation systems only to their optimum, not necessarily maximum, capacities by:
  - Improving transportation systems until the cost of future investments no longer results in substantial benefits.
  - Evaluating future investments through life-cycle cost/benefit analyses.
  - Making roadway operational and safety improvements to increase existing system efficiencies.
- 2. Reduce the dominance of the automobile as a travel mode by:
  - Reducing automobile travel demand.

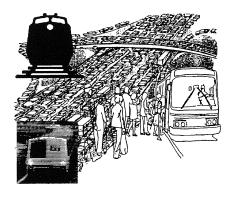
- Reducing automobile trips and vehicle miles traveled.
- Reducing single-occupant automobile trips.
- Reducing subsidies and raising the relative costs of automobile travel.
- 3. Increase the importance of transit as a travel mode by:
  - Increasing the demand to travel by transit.
  - Increasing transit services.
  - Increasing transit safety.
  - Increasing the integration of transit systems.
- 4. Plan and develop land uses that increase the demand for transit travel and reduce the demand for automobile travel by:
  - Concentrating new residential and employment development in locations which increase access to transit systems.
- 5. Employ new technologies that are cost effective.
- 6. Remove physical and institutional barriers that impede transportation system performance.
- 7. Develop and manage transportation systems through partnerships with federal, State, regional, and local governments.

MD:fc - MLDK1286\_WFT.DOC (02/01/01)

# Chapter 5



# **Land Use**



# V. LAND USE

### A. BACKGROUND

San Mateo County is predominantly characterized by relatively low land use densities and a separation of land uses, as supported and directed by the County's and cities general plans and zoning ordinances. This pattern of land development promotes high dependence on the automobile, while making transportation by alternative travel modes such as public transit, bicycling, or walking difficult or unattractive. However, if higher densities are developed on the Bayside, there will be more opportunity to create effective alternatives to the automobile.

Many studies have concluded that changes in land use patterns can encourage the use of alternative travel modes and decrease traffic congestion. A concerted countywide effort to encourage land use patterns that promote alternative transportation modes can be a significant factor in improving the County's transportation network. With enough political support, the County's land use patterns can be transformed incrementally by making changes to the policies which govern land development, such as those contained in local jurisdictions' general plans and zoning ordinances.

### B. ISSUES

## 1. Increased Land Use Densities

The research into the relationship between land use and transportation has found that automobile travel decreases as land use densities increase. In general, as densities increase, people need to travel shorter distances to reach their destinations, and are more likely to choose transportation modes other than the automobile. Further, higher densities improve the viability of transit as increases in ridership allow for improved service levels.

Employment densities have a particularly significant impact on travel behavior. Employment density has been cited as the primary land use factor determining transit use (Pushkarev and Zupan, 1982). Further, a study conducted in Seattle found that transit ridership increases significantly when employment density exceeds 50 employees per acre in centers that provide at least 10,000 jobs (California EPA, 1994).

Residential density has significant effects on automobile use as well. A study comparing travel behaviors in several Bay Area neighborhoods concluded that for each doubling of residential density, the average annual vehicle miles traveled (VMT) per person is reduced 25 to 30 percent (Holtzclaw, 1991). A Bay Area regionwide travel survey also found that there is a strong relationship between overall population density and increased transit availability and use (California EPA, 1994).

Model runs conducted as part of the *Countywide Transportation Plan* also demonstrate the beneficial effects of higher land use densities. The Urban Reuse Land Use Scenario, which adds 8,000 additional households to the Base Case (2010) Scenario and includes higher land use densities at strategic locations in transit corridors, resulted in reduced roadway congestion (see Alternatives Report).

Land development is primarily driven by market forces. However, higher densities can be promoted by: (1) in existing urban areas, removing regulatory barriers (i.e., zoning) as well as institutional barriers (i.e., facilitating financing for high density residential development), and providing incentives such as density bonuses or reductions in development impact fees; and (2) in less developed rural areas, continuing to limit development by strictly enforcing existing zoning regulations and restricting services. Such measures will help channel and intensify new growth within urban areas while at the same time preserving valued open space.

# 2. Mixed Land Uses

Another effective way to reduce dependence on the automobile is by promoting a mix of land uses. In San Mateo County, zoning has traditionally segregated land uses in order to keep incompatible uses, such as heavy industry and housing, from coming into close contact. This has resulted in development patterns marked by a strict separation of land uses, requiring long trips (typically by automobile) to get from one use to another.

However, fundamental transformations in the economy have reduced the importance of separating land uses. Exemplifying this shift is the conversion from a manufacturing-based economy with its adverse environmental impacts, to an information-based economy, which has much lower impacts on neighboring land uses. Thus, a mixed-use development pattern is now more viable than in

the past. One way it can be achieved is by relaxing conventional zoning codes which strictly segregate land uses.

Encouraging mixed-use development can reduce VMT and increase transit and pedestrian trips. For example, in single-use office parks, only about 3 to 8 percent of midday trips from work are walking trips, compared to about 20 to 30 percent in mixed-use areas (California EPA, 1994). Mixed-use development also improves mobility in residential areas because it creates more opportunities for residents to live closer to work and other key destinations such as shopping and child care.

# 3. Station Area Development

Locating high-density housing and employment centers near transit stations and along transit corridors can reduce congestion and increase transit trips. The research indicates that people who live or work within one-quarter mile of a transit station are much more likely to use transit. For example, Cervero (1994) found that in San Mateo, 26 percent of trips made by station area residents were by Caltrain, compared with only 3 percent of trips made by residents citywide.

Locating around transit stations can also improve the market viability of high density development, as people will generally be more willing to gain the benefits for living near transit. This has been demonstrated over recent years by the many successful transit oriented developments that have been established throughout the Bay Area and the State.

The "activity center" is a particularly promising concept combining high density, mixed-use, and transit area development. In an activity center, a large variety of land uses are clustered in proximity to one another and offer excellent transit, bicycle and pedestrian access.

# 4. <u>Urban/Rural Boundary</u>

San Mateo County has established an urban/rural boundary with the goal of channeling growth into defined urban areas while restricting growth in rural areas. Continued enforcement of this boundary should have the effect of increasing land use densities within the County's urbanized areas, with a corresponding decrease in automobile use within the County. However, it is

unlikely that the County's urban/rural boundary will have significant effects on intercounty transportation patterns.

# 5. <u>Jobs-Housing Balance</u>

Jobs-housing balance exists when a geographic area has a housing supply that meets the needs of all its workers. Not only should the region provide enough housing to accommodate its workers, but just as importantly, housing prices should be compatible with worker incomes.

San Mateo County is considered "housing rich" because theoretically, it has more than enough housing units to provide for the number of people who work in the County. However, since housing prices have been bid up by the relatively high incomes of San Mateo County residents, a large portion of whom work outside the County, the County's housing supply is not affordable for many people who work in the County. This imbalance in housing prices and worker incomes has already contributed to some of the highest levels of in- and out-commuting in the Bay Area, which has resulted in worsening traffic congestion. To make matters worse, growth projections indicate that under existing general plans, the County will not provide enough new housing to accommodate anticipated job growth through 2010.

Given the severity of existing and projected jobs-housing imbalances in San Mateo County, achieving a better balance is likely to yield significant transportation benefits. The potential effectiveness of promoting balanced growth is demonstrated by traffic model analysis conducted as part of the *Countywide Transportation Plan*. The Economic Development Scenario, which tested the transportation impacts of promoting jobs-housing balance in San Mateo County by adding 10,000 more households than allowed for by existing general plans, resulted in reduced roadway congestion.

To promote a jobs-housing balance as the County grows, it is recommended that the cities of San Mateo County adopt a program that requires production of housing units commensurate with job growth. Such a program could also seek ways to promote jobs in areas that are disproportionately housing rich, and to limit job growth in areas that are jobs rich. Further, it is recommended that jurisdictions evaluate the adequacy of general plans to provide housing to accommodate job growth on the countywide level through the year 2010. It is estimated that for the County to accommodate anticipated job growth, at least

10,000 housing units more than general plans currently provide for through buildout will need to be constructed.

There are several additional methods the County should consider to support the production of housing in San Mateo County. One would be to establish a housing trust fund, financed by contributions from business and government. Such a fund could alleviate the demand in the County for affordable housing by augmenting existing State and federal housing funds, and in particular, by funding programs such as first-time home buyer programs, grants to lower the costs of apartment units, and traditional housing for homeless families. Government, businesses, and foundations could all be encouraged to contribute by highlighting the proven economic and social benefits of having an adequate housing supply.

Another strategy the County should consider is mounting an aggressive housing advocacy campaign. Such a campaign could include the formation of a task force that would endorse targeted housing developments during the public review process, or development of outreach programs to educate the public and elected officials on the need for more housing in the County.

# 6. Project Design Standards

Automobile use can be discouraged through the project approval process by requiring developers to adhere to site design standards that promote alternative modes of transportation. Many of the design standards commonly used today focus too heavily on accommodating the automobile. For example, most zoning codes require a minimum number of parking spaces. Such requirements, coupled with tax incentives for providing free parking, have contributed to an asphalt landscape dominated by the automobile and difficult to navigate by foot or bicycle.

There are many ways site designs can increase the use of alternative travel modes and reduce the attractiveness of the automobile. Designs such as bus turnouts and shelters near building entrances encourage transit use. Pedestrian and bicycle travel can be encouraged by providing amenities such as safe and attractive pedestrian and bicycle paths with convenient connections to nearby land uses, secure bicycle parking, and on-site amenities such as shower facilities. Further, designs can make ridesharing more attractive by providing preferential parking to rideshare vehicles (e.g., carpools, vanpools), with parking

spaces located close to building entrances and shuttle stops, sheltered parking, and exemptions from parking fees.

Design standards can reduce the attractiveness of the automobile by promoting on-site employee services such as cafeterias, gyms, and day care centers, that reduce the need for midday trips. Finally, development standards can reduce automobile use by relaxing minimum parking requirements, which are often set higher than actual demand.

# 7. Fiscalization of Land Use

A well-planned community balances social, economic, environmental, and fiscal needs. It provides its residents with an adequate employment base, social programs and public services, and opportunities for shopping, entertainment, and recreation. It provides housing suitable for its workforce. It fosters economic development and growth without compromising the natural environment and overall quality of life. Finally, it accomplishes all this within the constraints of a balanced municipal budget.

In the last twenty years, a balanced community has become more difficult to achieve as local land use decisions have increasingly become driven by fiscal concerns. While attention to fiscal impacts has always played a role in the planning and development process, it became a major consideration with the passage of Proposition 13 in 1978. Proposition 13, passed in response to the rapid property appreciation and skyrocketing property tax bills of the 1970s, rolled back assessed values to 1975-76 levels, and limited property tax to one percent of assessed value and annual increases in assessed value to 2 percent. In addition, it provided that only new and resale properties would be reassessed at current appraised value. The result was an immediate drop in local tax revenues, with property tax declining from a statewide average of 18 percent of city revenues to only 7 percent. In 1993, the detrimental effects of Proposition 13 were further compounded when the State Legislature approved a shift of approximately 25 percent of property tax funds from cities and counties to school districts.

In the wake of Proposition 13, sales taxes became coveted as a way to make up lost revenues. Since the measure passed, cities have aggressively competed with each other for sales tax generating land uses such as auto dealerships and shopping centers while shying away from low to moderately priced residential

uses, which are generally considered to be fiscal losers. Further, upon approval of new residential development, it has become common practice for cities to exact substantial development impact fees to offset infrastructure costs, resulting in an increase in housing prices. New residential development has been pushed to outlying areas seeking any type of revenues they can get, and where development costs are often significantly lower.

Throughout California, this fiscal climate, coupled with the recent economic resurgence, has resulted in imbalanced growth, with advantageously located jurisdictions successfully luring sales tax generating land uses, and moderately priced housing being relegated to the urban fringe. Such imbalanced development patterns have contributed to traffic congestion by increasing the distances between where people live and where they work and shop.

The table in Exhibit 5.1 demonstrates how Proposition 13 has affected jurisdictions in San Mateo County. The table shows total general fund revenues, property tax, sales tax, and transient occupancy tax (TOT) for each jurisdiction in the County, expressed both in absolute terms and on a per capita basis. The table is illustrated in Exhibit 5.2. This report considers per capita general fund revenue to be a reasonable indicator of a city's fiscal well-being.

As shown in the table, the cities in the healthiest fiscal condition are generally those that have been most successful at attracting land uses that generate sales taxes and transient occupancy taxes. For example, South San Francisco and Redwood City have a solid sales tax base, while Burlingame, as a direct result of being located near the San Francisco Airport, enjoys considerable TOT revenues along with strong retail sales. Exceptions to this rule are Atherton and Hillsborough, which lack a significant sales tax or transient occupancy tax base, but are in strong fiscal condition due to their extraordinarily high housing values. The cities mentioned above have some of the highest per capita general fund revenues in the County. Conversely, cities with the lowest sales tax or transient occupancy tax revenues, and which do not have high property values, tend to be fiscally worse off. Examples include East Palo Alto, Half Moon Bay, and Pacifica. The situation in East Palo Alto, however, is improving.

The situation in San Mateo County highlights the importance of being able to attract sales tax and/or transient occupancy tax generating land uses. Cities that have succeeded in this regard have reaped the fiscal benefits, while the cities that have provided the bulk of the County's moderately priced housing have suffered the fiscal consequences. Differing abilities to attract revenue generating

land uses have resulted in a significant variation in the fiscal health of San Mateo County cities. In San Mateo County, as with the rest of California, there is little incentive for balanced land use planning, as jurisdictions' land use decisions continue to be driven primarily by fiscal concerns.

One way to address the County's uneven fiscal structure and undesirable land use decisions is to make changes to the State's tax structure so that cities are not penalized for trying to create a balanced community. This can be accomplished by reasserting the prominence of property taxes to local agencies, or by passing laws to allow cities in the same region to share property and/or sales tax revenues.

# C. <u>LAND USE POLICIES (not in order of priority)</u>

# 5.1 <u>Integration of Land Use and Transportation Planning</u>

Integrate land use and transportation planning.

# 5.2 Fiscal Land Use Planning

- a. Promote new State property tax, sales tax, and revenue sharing legislation that would increase incentives for better land use planning.
- b. Discourage land use planning in which decisions are primarily influenced by fiscal considerations.

# 5.3 Revenue Sharing

Encourage the use of State laws which allow for revenue sharing within San Mateo County.

# 5.4 Jobs/Housing Equation

- a. Promote the creation of enough housing units at the right prices to meet the needs of existing or potential residents who work in the County.
- b. Strongly encourage the creation of housing units in or near jurisdictions which have an excess of jobs.
- c. Strongly encourage the creation of jobs in or near jurisdictions which have an excess of housing units.
- d. Discourage creation of jobs in or near jurisdictions which have an excess of jobs over housing.

# 5.5 Urban/Rural Boundary

Concentrate new development in suitable urban areas within the County of San Mateo's urban/rural boundary.

# 5.6 <u>Transit-Oriented Development</u>

- a. Promote high density residential, employment, and mixed-use development in transit corridors throughout the County.
- b. Promote the redevelopment of city cores along and near the Caltrain system as not only retail but employment and housing centers.

# 5.7 Affordable Housing

Promote the development of affordable housing within the County especially within transit corridors.

# 5.8 <u>Development Standards</u>

- a. Give priority to promoting development that encourages transit use, walking, and bicycling. Ensure that development can accommodate transit vehicles such as full-size shuttle buses.
- b. Give priority to mitigating traffic generated by new development.

MD:fc - MLDK1149\_WFT.DOC (02/01/01)

Exhibit 5.2

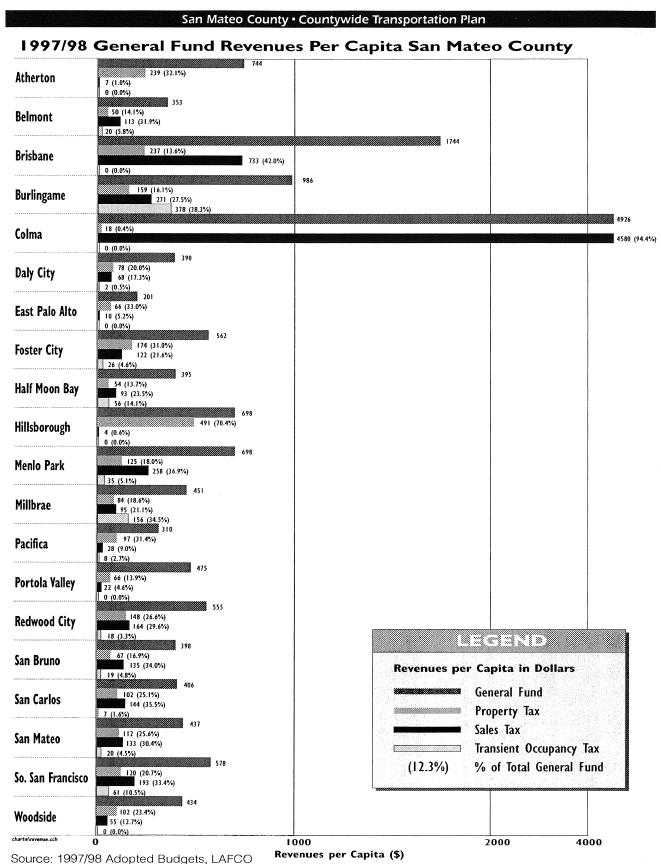


Exhibit 5.1

# San Mateo County • Countywide Transportation Plan

# 1997/98 San Mateo County General Fund Revenues

City	Population	Total General Fund Revenue	General Fund Per Capita	Property Tax Revenue	% of Total General Fund	Property Tax Per Capita	Sales Tax Revenue	% of Total General Fund	Sales Tax Per Capita	Transient Occupancy Tax	% of Total General Fund	Transit Occupancy Tax per Capita
Atherton	070.7	007700	4	4 0 0	707	6	6		1			1
	716,1	9 0,400,408	4 / 44	\$ 1,758,86U	32.1%	\$ 239	\$ 52,800	1.0%	<i>2</i>	0 \$	%0:0	0 \$
Belmont	25,218	\$ 8,911,440	\$ 353	\$ 1,257,270	14.1%	\$ 20	\$ 2,847,000	31.9%	\$ 113	\$ 515,600	2.8%	\$ 20
Brisbane	3,205	\$ 5,588,644	\$ 1,744	\$ 760,000	13.6%	\$ 237	\$ 2,350,000	45.0%	\$ 733	0\$	%0:0	0 \$
Burlingame	28,567	\$ 28,171,000	\$ 986	\$ 4,540,500	16.1%	\$ 159	\$ 7,750,000	27.5%	\$ 271	\$ 10,800,000	38.3%	\$ 378
Colma	1,240	\$ 6,108,082	\$ 4,926	\$ 22,266	0.4%	\$ 18	\$ 5,679,610	93.0%	\$ 4,580	0\$	%0.0	\$ 0
Daly City	101,349	\$ 39,488,605	\$ 390	\$ 7,914,998	20.0%	\$ 78	\$ 6,850,000	17.3%	\$ 68	\$ 215,000	0.5%	\$2
East Palo Alto	25,051	\$ 5,025,915	\$ 201	\$ 1,660,000	33.0%	\$ 66	\$ 260,000	5.2%	\$ 10	0\$	%0.0	0\$
Foster City	29,769	\$ 16,719,200	\$ 562	\$ 5,183,000	31.0%	\$ 174	\$ 3,619,000	21.6%	\$ 122	\$ 769,000	4.6%	\$ 26
Half Moon Bay	10,852	\$ 4,289,300	\$ 395	\$ 587,000	13.7%	\$ 54	\$ 1,006,500	23.5%	\$ 93	\$ 606,000	14.1%	\$ 56
Hillsborough	11,328	\$ 7,908,700	\$ 698	\$ 5,567,600	70.4%	\$ 491	\$ 47,100	%9:0	\$ 4	0.8	%0:0	\$ 0
Menio Park	30,554	\$ 21,320,490	\$ 698	\$ 3,830,410	18.0%	\$ 125	\$ 7,875,300	36.9%	\$ 258	\$ 1,082,020	5.1%	\$ 35
Millbrae	21,447	\$ 9,682,222	\$ 451	\$ 1,796,426	18.6%	\$ 84	\$ 2,042,650	21.1%	\$ 95	\$ 3,340,503	34.5%	\$ 156
Pacifica	39,667	\$ 12,289,000	\$ 310	\$ 3,854,450	31.4%	\$ 97	\$ 1,109,650	%0.6	\$ 28	\$ 330,000	2.7%	8 \$
Portola Valley	4,470	\$ 2,123,200	\$ 475	\$ 296,000	13.9%	\$ 66	\$ 98,000	4.6%	\$ 22	0\$	%0:0	0\$
Redwood City	73,225	\$ 40,655,509	\$ 555	\$ 10,809,239	26.6%	\$ 148	\$ 12,020,592	29.6%	\$ 164	\$ 1,348,098	3.3%	\$ 18
San Bruno	40,814	\$ 16,263,800	\$ 398	\$ 2,750,500	16.9%	\$ 67	\$ 5,530,000	34.0%	\$ 135	\$ 775,000	4.8%	\$ 19
San Carlos	28,074	\$ 11,398,503	\$ 406	\$ 2,863,115	25.1%	\$ 102	\$ 4,050,800	35.5%	\$ 144	\$ 185,000	1.6%	\$ 7
San Mateo	92,180	\$ 40,280,365	\$ 437	\$ 10,300,000	25.6%	\$ 112	\$ 12,262,564	30.4%	\$ 133	\$ 1,800,000	4.5%	\$ 20
So. San Fran	57,608	\$ 33,307,643	\$ 578	\$ 6,904,000	20.7%	\$ 120	\$ 11,141,000	33.4%	\$ 193	\$ 3,500,000	10.5%	\$ 61
Woodside	5,466	\$ 2,372,233	\$ 434	\$ 555,086	23.4%	\$ 102	\$ 302,317	12.7%	\$ 55	0 \$	%0.0	\$ 0
Source: 1997/98 adopted budgets	onted hudgets											

Source: 1997/98 adopted budgets