

**ALTERNATIVES ANALYSIS,
HIGHWAY 101 WIDENING PROJECT**

**Final Report
Executive Summary**

Prepared for:

SANTA BARBARA COUNTY ASSOCIATION OF GOVERNMENTS

Prepared by:

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.

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EXECUTIVE SUMMARY

S.1 PROBLEM STATEMENT

In March, 1993 the *Draft Environmental Impact Statement/Report - Route 101 Six-Lane Project Between Milpas Street in the City of Santa Barbara and 1.1 Miles North of the Ventura County line in the City of Carpinteria* (draft EIR) was released for public comment by Caltrans. The release of this document resulted in significant expressions of public concern regarding the project's impacts on the community and its quality of life, and generated public enthusiasm for the consideration of alternative modal solutions within the Highway 101 Corridor.

Responding to the public's interest in studying alternative solutions within the Highway 101 Corridor in the urbanized South Coast, the Santa Barbara County Association of Governments (SBCAG) initiated this study, *Alternatives Analysis of Highway 101 Corridor*, in December, 1993.

The purpose of the *Alternatives Analysis of Highway 101 Corridor* project is to identify and analyze all transportation modes and operational management strategies within the Highway 101 Corridor in the urbanized South Coast. The study also demonstrates the degree to which travel can be shifted from auto use on Highway 101 to alternative modes of transportation. These measures are intended to forestall the need for additional vehicle capacity in the Corridor through the year 2015. For the purpose of this study, the Highway 101 Corridor extends from just west of the Ventura County line in Carpinteria to Milpas Street in Santa Barbara.

To ensure that all participants in the study process acquired and maintained a common understanding of the problem to be addressed and the objective of the study, a Problem Statement and Study Objective were adopted by the Technical Advisory Committee (TAC) and the Community Advisory Committee (CAC) at the beginning of the project. These served as starting points in the process and as stimuli for the generation of solutions:

The objective of this study is to identify methods, costs, and feasibility of accommodating future travel through the use of alternative transportation modes and related policies such that the need to widen Route 101 between Milpas Street in downtown Santa Barbara and the Ventura County line could be avoided before the year 2015.

In recognition of our current reliance on single occupant vehicle travel, it is important that the study be prepared in a manner that creates an alternative transportation environment which entices

the user and compels its use.

In specific reference to that portion of Highway 101 between Milpas Street and the Ventura County line, what short term and long term programs and projects can be identified, funded and implemented to accommodate future travel through the use of alternative modes and;

- 1) *avoid the need to widen Highway 101 before the year 2015,*
- 2) *create an attractive alternative transportation environment which entices the user and compels its use while maintaining mobility standards, and*
- 3) *respect the community's desire to maintain and enhance a high quality of life and viable economy for current and future generations.*

S.1.1 Assessment of the Setting

S.1.1.1 Physical Characteristics of the Corridor

The 12-mile portion of Highway 101 addressed in this study is a four-lane freeway. Milpas Street is the point where Highway 101 transitions from six lanes to the four-lane configuration which exists through the project area. Congestion occurs during peak traffic periods at this transition point. From Milpas Street to approximately Evans Avenue, through Montecito, Highway 101 is lined with mature vegetation which gives it a parkway-like character and a physical beauty that is well-known throughout Southern California and beyond. It serves as a unique gateway to the City of Santa Barbara. The overcrossings and irregular ramp configurations, such as the left-hand ramps at Hot Springs Road and at Sheffield Drive, and the isolated ramps such as the southbound on-ramp from South Jameson Lane, are substandard by today's design criteria. There is some community concern that efforts to widen the roadway and/or upgrade the interchanges to current standards will have significant negative impacts on the unique character of this roadway and on the communities surrounding it. The traffic volumes along this segment of Highway 101, approaching downtown Santa Barbara, tend to be higher, by as much as thirty-five percent, compared to the eastern end of the Corridor. Significant weekend peak period congestion occurs westbound (northbound) on Saturday.

The traffic volumes in the eastern portion of the Corridor are somewhat lower, although weekend peak period traffic, particularly eastbound (southbound) Sunday afternoon traffic, results in congested conditions. In the city of Carpinteria, the freeway forms a barrier to local access and circulation, with its limited number of two-lane overcrossings. The substandard ramps in this portion of the Corridor present capacity and safety issues.

S.1.1.2 Traffic Flow in the Corridor

Weekday peak period traffic flow on Highway 101 is dominant in the northbound direction during the morning peak period (7 a.m. to 9 a.m.) with the reverse occurring during the evening peak period (4 p.m. to 6 p.m.). Currently, while back-ups and delay do sometimes occur southbound during the evening peak period,

particularly in merge/diverge sections such as the area west of Milpas Street, there is generally limited congestion or slowing during the weekday peak periods. However, when accidents occur, long traffic queues result due to the heavy traffic volume. Although there are several roads that are parallel to Highway 101, including Casitas Pass Road and Padaro Lane, none are continuous. This causes local congestion as drivers are forced to divert either onto Highway 101 or other parallel facilities to proceed through the Study Area.

The heaviest traffic flow along Highway 101 currently occurs in the eastbound direction during the Sunday afternoon peak period, particularly during summer months. This traffic is generally comprised of tourists returning from weekend recreation in Santa Barbara or coastal attractions to the north.

Based on the SBCAG's travel forecasts, traffic volumes along Highway 101 will increase by 24 to 41 percent depending upon the location along the Corridor by the year 2015, even if no improvements are made along the Highway 101 Corridor. With no additional improvements and no significant shift in mode of travel or of vehicle occupancy trends, Highway 101 is estimated to operate at level of service E or worse along the entire length of the Corridor by 2015. This condition represents congested traffic flow with significant delays and reduced travel speeds (approximately 20 to 30 miles per hour). Once speeds along the freeway drop below 30 miles per hour, the parallel arterials begin to offer attractive alternatives to motorists, particularly those making shorter trips. As a result, traffic volumes along these arterials will also increase, with the accompanying problems of congestion, noise and air quality deterioration and neighborhood intrusion.

S.1.1.3 Travel Characteristics

Travel forecast modeling is used to estimate future travel patterns within the Corridor. SBCAG's travel model is used for regional as well as corridor level planning in the region. Based on the SBCAG travel model simulation of 1990 conditions, approximately 23 percent of the average daily trips generated in the Corridor are work-related trips, with approximately 12 percent being home-based work trips. The largest trip purpose (27 percent) in the Corridor is estimated to be home-based-other trips, which includes resident recreational trips, trips to the doctors, and any other trip which is not to work, school or shopping. The non-home-based-other trips comprise approximately 24 percent of the Study Area trips. Visitor trips are estimated to comprise approximately 4 percent of the weekday Study Area trips.

The intercept travel survey, conducted in April and May of 1994 as part of this study, found that the dominant trip purpose (62 percent) for travelers on Highway 101 during the weekday evening peak period was home-based-work, since most of the drivers during this time of day were commuters returning home from work (see Table S-1).

Approximately 45 percent of the drivers surveyed on Highway 101 indicated they began their trip in the South Coast and traveled to Ventura County.

**Table S-1
Summary of Survey Trips by Trip Purpose**

PURPOSE	SUNDAY PEAK PERIOD	TUESDAY MIDDAY	TUESDAY PEAK PERIOD
	No. of	No. of	No. of

	Survey Response s	Percent of Trips	Survey Response s	Percent of Trips	Survey Response s	Percent of Trips
Home-Work	159	11.4%	96	29.9%	895	62.2%
Home-School	36	2.6%	21	6.5%	56	3.9%
Home-Shop	160	11.4%	44	13.7%	86	6.0%
Home-Hotel	194	13.9%	16	5.0%	39	2.7%
Home-Other	808	57.7%	105	32.7%	268	18.6%
Work-Other	8	0.6%	24	7.5%	64	4.4%
Work-Hotel	1	0.1%	2	0.6%	3	0.2%
Other	34	2.4%	13	4.0%	29	2.0%
TOTAL	1,400	100.0%	321	100.0%	1,440	100.0%

Although forecast growth and development in Ventura County, particularly in employment, may alter this pattern over time, it is expected that this commute pattern will continue into the future. The SBCAG travel model estimates a 30 percent growth in tripmaking between the South Coast and areas outside the County by the year 2015, with the majority of these trips destined for Ventura County.

The survey also found that during the Sunday peak period, home-based-other trips (including home-based-hotel trips returning home) represented almost 72 percent of the trips along Highway 101.

Based on the SBCAG travel forecasts for year 2015, the current distribution of trip purposes is projected to continue into the future. Work-related trips will continue to represent approximately 23 percent of the trips in the Study Area while home-based other and non-home-based other will comprise 27 and 24 percent of the trips respectively.

The majority of trips in the Highway 101 Corridor are made in single-occupant automobiles. Sixty-nine percent of the work-commute trips in the Santa Barbara County Census Division (CCD) that includes Santa Barbara and Goleta and 70 percent of the work-commute trips in the Carpinteria CCD in 1990 were drive-alone trips. The result is an average vehicle occupancy for home-to-work commute trips in the Santa Barbara County of approximately 1.11 persons per vehicle.

Average vehicle occupancy for other trip purposes, particularly home-based-shop and home-based-other is typically higher than for home-based-work trips. When trips of all purposes are considered, the average vehicle occupancy for Santa Barbara County is approximately 1.41 persons per vehicle, up from 1.38 in 1980.

S.1.1.4 Factors Affecting Mode Choice

A component of the SBCAG travel model is mode choice. Extensive research in travel mode choice behavior has concluded that people act as rational economic consumers of travel, choosing the mode that provides them the least perceived "generalized cost" for a given trip, in terms of both travel time and monetary costs, as well as "quality of service" factors such as comfort, convenience of use, and reliability of arrival times. Travel time is not equally valued by travelers; the time spent traveling within a vehicle (car, bus or train) is less onerous (by a factor of 1/3 to 1/2) than the time spent walking to/from the vehicle or waiting for the vehicle. The cost of the trip is perceived by travelers as the "out-of-pocket" cost of the trip, in terms of transit fares paid or automobile parking charges and tolls incurred during a trip. The perceived out-of-pocket costs for a specific trip do not include the other, usually larger, costs of automobile ownership such as depreciation, insurance,

etc.

Therefore, to induce travelers to shift from the current predominant choice of single occupant vehicles (SOV) for at least some of their daily trips, the relative "generalized costs" of SOV versus alternative modes such as carpool and transit must be changed from the current conditions; the economic "signals" being sent to travelers must be modified. This can be accomplished both by making alternatives to SOV use more competitive with High Occupancy Vehicles (HOV) and by making SOV usage less competitive with alternative modes. These underlying travel behavior concepts formed the basis for the development of alternatives to the widening of Highway 101 and their forecast ability to reduce future automobile use. These factors explain the reasons why particular modes are more "attractive" to trip-makers for specific trips in the South Coast, as elsewhere in North America, and why the proposed alternatives have the forecast travel impacts that are shown. (See the discussion of hidden costs in Section S.1.2.6.)

S.1.2 Analysis Alternatives

Three "analysis alternatives" to the Highway 101 Widening Project were developed with public input including many comments which shaped the Request for Proposal for this study. An early scoping meeting in February 1994 identified basic ideas to reduce congestion and generally reduce automobile usage, which the community identified as important. Ideas were then grouped and refined into preliminary alternative measures, shaped through review by both the TAC and CAC and refined into packages of alternatives to be assessed for effectiveness in meeting project goals. Each package represented a substantially different strategy for accommodating travel demand in the Highway 101 Corridor in order to analyze a broad range of options. They included:

Enhanced bus transit to include express bus service between Isla Vista and Ventura, and complementary improvements to local service (Enhanced Bus analysis alternative).

Implementation of rail transit between Carpinteria and Isla Vista with complementary express bus service between Santa Barbara and Ventura and enhanced local bus services (Rail Transit analysis alternative).

A significant parking pricing policy including enhanced applications of Travel Demand Management (TDM) strategies (Pricing/Enhanced TDM analysis alternative).

S.1.2.1 Enhanced Bus Transit Analysis Alternative

The enhanced bus transit package would provide significant express bus service along the Highway 101 Corridor on both weekdays and weekends. Figure S-1 indicates conceptual bus

station locations, route and shuttle rerouting, and new service locations. Enhanced bus service includes:

Weekday express bus service along the length of Highway 101/Route 217 between downtown Ventura and Isla Vista/UCSB (15 additional buses).

Freeway Flyer stops at:

- Carpinteria at the Linden Avenue/Highway 101 interchange,
- Summerland at the Via Real/Evans Avenue/Hollister Street/Highway 101 interchange,
- Montecito at the San Ysidro Road/Highway 101 interchange,
- Downtown Santa Barbara at the Castillo Street/Highway 101 interchange
- Five Points at the La Cumbre Road/Las Palmas Drive/Highway 101 interchange
- Goleta at the Hollister/Route 217 interchange, and
- Isla Vista at the existing UCSB transfer center.

Increased service hours and frequency (peak period, base, and evening) on existing MTD routes, for collection/distribution to freeway flyer stops and express bus service (57 additional buses).

An increase of 182,800 annual revenue vehicle hours of service.

The capital costs for the enhanced bus analysis alternative are estimated to range between \$43 to \$47 million, expressed in 1994 dollars. Annual operating and maintenance costs to implement these enhanced bus services are projected to cost an additional \$10.3 and \$11.7 million per year in 1994 dollars, over and above MTD's current operating and maintenance costs. The lower estimate is based upon the assumption that the new express services are contracted out to private company operation, while the higher number assumes that MTD would operate all new services as well as continue to operate the existing bus services. However, these increased operating costs would be partially offset by increases in passenger fare revenues from increased ridership. More specific costs should be developed once specific station and service location adjustments have been recommended.

S.1.2.2 Rail Transit Service Analysis Alternative

The rail transit service analysis alternative assumes the addition of new rail transit service along the Southern Pacific Coast Line. The new rail transit service would operate along the 22-mile segment between Carpinteria and Isla Vista. Figure S-2 presents a conceptual layout of the rail transit service package.

Trains could either share the existing rail line or operate on a new, dedicated single-line track to be built adjacent to the existing track.

Either Light Rail Transit (LRT) or Diesel Rail Car (DRC). The LRT, which is electrically powered via overhead wires (catenary), would run at-grade along a new, dedicated single-track line parallel to the existing Southern Pacific track. The DRC, which is self propelled using diesel engines, would run on the existing, mostly single track Southern Pacific (SP) line.

Changes to existing local MTD bus routes to provide feeder and distributor services (32 additional peak buses).

Seven rail stations (see Figure S-2) including:

- Carpinteria at Linden Avenue,
- Summerland near the Evans Avenue entrance to the Look Out County Park,
- Montecito at Olive Mill Road,
- Downtown Santa Barbara at the existing Amtrak station,
- Five Points area near the State Street railroad overpass,
- Goleta at the Patterson Avenue railroad underpass, and
- Isla Vista at the Storke Avenue/Glenn Annie Road railroad underpass.

Park-and-ride lots at proposed rail transit stations at Carpinteria, Downtown Santa Barbara, Goleta and Isla Vista.

Complimentary weekday express bus service between the Santa Barbara and Ventura Amtrak stations.

The estimated capital costs for the rail transit package range from \$134 million (1994 dollars) for the Diesel Rail Car (DRC) technology operating on existing Southern Pacific tracks to \$357 million (1994 dollars) for a Light Rail Transit (LRT) system which would require that 22 miles of new track be installed along the Southern Pacific right-of-way, along with associated electrical power distribution system. Either rail technologies would require a vehicle maintenance facility and associated vehicle storage yard along with the acquisition of vehicle rolling stock. Of these totals, it is estimated that \$10.5 million would be needed to purchase additional buses to operate the express bus service and expanded feeder bus routes contained in this package and another \$12 million in other support elements such as park-and-ride lots, rail stations, and expansion of bus maintenance facilities to accommodate the larger fleet size.

Annual operating and maintenance costs are estimated to increase by \$10.5 million over current levels for the LRT option and \$15.5 million for the DRC option. LRT is less costly to operate and maintain than the DRC technology, though it is significantly more costly to construct within this Corridor.

S.1.2.3 Pricing/Enhanced Travel Demand Management (TDM) Analysis Alternative

The Pricing/Enhanced TDM analysis alternative included no new facilities or bus service. Two primary elements were analyzed.

Employer element: full realization of the existing City/County TDM Ordinance.

Areawide element: pricing strategies which affect all modes of travel, and promotional strategies for employers, residents and visitors.

Employer Element: **all** employers with 20 or more employees in the region would be mandated to implement aggressive TDM programs which include:

- a part- or full-time employee transportation coordinator, ridematching and information services,
- . flexible work hours for employees who rideshare,
- . vanpool development with operating assistance,
- . on-site bus pass sales and information programs,
- . a guaranteed ride home program,

a 4/40 work week that would be available to and utilized by 22 percent (based on national research) of the total employee population,

- . a 9/80 work week that would be available to and utilized by 7 percent (based on national research) of the total employee population,

a telecommuting program would be available to and utilized by 18 percent (based on national research) of the total employee population an average of two days per week, preferential parking for carpools and vanpools which save employees walking time from their vehicle to the building entrance, and

a transit subsidy of \$0.50 per day for employees who take the bus to work.

Area-wide Element:

Automobile Trip Pricing -

- a parking fee or charge for parking of \$3.00 per day (1994 dollars) for single occupant vehicles (SOVs) on long term parking, and
- a \$0.70 per carpool passenger per day on long term parking.

Transit fare reduction - 50% transit fare reduction for all types of riders and trip types.

Currently, over 420 employers with 20 or more employees are implementing TDM programs for their employees in response to the ordinance. The commute options, incentives and level of effort varies greatly among companies. The 1993 employer survey conducted by *Traffic Solutions* found that between 17% to 33% of employers are offering some, but not all, of these measures. It is recognized (Shoup, 1995) that pricing (e.g. charging drivers for use of an auto) is one of the most effective strategies for reducing trips, and therefore, traffic congestion. Research on ridership response to fare reductions indicates a national average fare "elasticity" of 0.37; that is, for every 10% decrease in fares, there is a corresponding 3.7% increase in

transit ridership. This level of transit fare reduction could generate a 18.5% average increase in transit ridership.

Aggregate additional annual costs to South Coast employers for the employer element are estimated at \$4.7 million per year in 1994 dollars (including the transit fare subsidy described above). This estimate is based upon soon to be published national research on observed costs of various TDM programs. The \$3.00 per day fee on long term parking could generate upwards of \$25 million per year in revenues, which could be used to reimburse employers, to fund expansion of bus services, and subsidize transit passes. Therefore, the overall fiscal impact (including the parking fee) of this alternative to the public and private sectors would be at worst neutral (all parking fee revenues used to fund program elements) or could generate excess revenues for transportation or other improvements in the South Coast.

S1.2.4 Elements Common to All Strategies

Several elements are common to all of the strategies; they include:

Nonmotorized support strategies and transportation system management measures, activities and improvements were included in all analysis alternatives.

Bicycle paths and support facilities (e.g. lockers at transit stations) are included based on facilities identified as needed within the Study Area limits in the *Regional Bikeway Study* (SBCAG, 1994).

Transportation system management elements, based on the Traffic Operations System Plan for District 5 currently under development, include the addition of ramp metering and provision of HOV bypass lanes at the Linden Avenue, Milpas Street, and Castillo Street freeway ramps.

Where sufficient shoulder width exists, the provision of bus-only lanes, or other bus priorities to enhance bus schedule reliability at busy weekend or weekday peak periods.

S1.2.5 No Build and Build Alternatives

The No Build alternative assumes the existing configuration of Highway 101 and other local streets in the year 2015. The widening of Highway 101 as described in the Caltrans draft EIR assumes a six-lane facility (three lanes in each direction) between Milpas Street and the Ventura County line.

S1.2.6 Hidden Costs of Automobile Use

The costs of infrastructure built to accommodate auto traffic are often underestimated in a general economic sense under the assumption that they encourage economic development. That

causes alternatives to new roadway construction, such as the Enhanced Bus Transit alternative, to be at a competitive disadvantage since many of the costs associated with the Highway 101 widening alternative are externalized and borne by society rather than the user (M.W. Cameron, *Efficiency and Fairness on the Road: Strategies for Unsnarling Traffic in Southern California*, 1994). These costs are both internal and borne by the automobile user or external and borne by society in the form of fuel taxes and registration fees. Table S-2 identifies elements of "hidden costs."

**Table S-2
Motor Vehicle Hidden Costs**

	Variable	Fixed
Internal (User)	Fuel	Vehicle Purchase
	Short-term Parking	Vehicle Registration
	Vehicle Maintenance	Insurance Payments
	<i>User Time</i>	Long-term Parking Facilities
	<i>User Accident Risk Stress</i>	Vehicle Maintenance
External (Social)	Road Maintenance	Road Construction
	Traffic Law Enforcement	"Free" or Subsidized Parking
	Insurance Disbursements	Traffic Planning
	<i>Congestion Delays</i>	Street Lighting
	<i>Environmental Impacts</i>	<i>Land Use Impacts</i>
	<i>Uncompensated Accident Risk</i>	<i>Social Inequity</i>

Note: Italicized items represent non-market costs

Source: T. Litman, *Transportation Cost Analysis: Techniques, Estimates and Implications*, March 1995

These "hidden" costs could be used to more precisely develop estimates of the true costs to the South Coast of the Highway 101 widening alternative. Table S-3 summarizes typical internal and external costs that have been estimated for automobile travel in the U.S.

**Table S-3
U.S. Motor Vehicle Costs
(By Mile and Total)**

	Vehicle Miles Traveled (billions)	Internal Per Mile (dollars)	% of Total	External Per Mile (dollars)	% of Total	Total Costs Per Mile (dollars)
Urban Peak Period	460	\$0.71	54%	\$0.61	46%	\$1.32
Urban Off-Peak	920	\$0.71	68%	\$0.34	32%	\$1.05
Rural	920	\$0.64	76%	\$0.20	24%	\$0.84
Weighted Average		\$0.67	68%	\$0.32	32%	\$0.99

Source: T. Litman, *Transportation Cost Analysis: Techniques, Estimates and Implications*, March 1995

Based on this national analysis, a cost of \$0.40 per mile can be applied during the peak periods and \$0.27 during the off-peak periods to approximately account for the "hidden" (external) costs of auto travel in Santa Barbara. These cost estimates, an average of the urban and rural external costs during each of the periods, reflect the level of development in the Highway 101

Study Area. Given an estimated average auto trip length of seven miles in the South Coast, these "hidden" costs can also be expressed as an average of \$2.80 per peak period auto trip taken and \$1.89 per off-peak auto trip. These costs have not been added to cost effectiveness analysis in this study.

S.1.3 Evaluation of the Alternatives

Evaluation criteria identified by the public and those ultimately approved by the TAC and CAC are listed in Table S-4.

Many of these measures provide a quantitative basis for comparison of the proposed alternatives. Travel statistics serve as the basis for comparison in the measures of the problem and measures of the solution. Other measures are qualitative in nature and require subjective judgments. Thresholds of significance such as those prescribed by local policy or through national, state, or local environmental regulations are used where available. Examples include federal and state ambient air quality standards, or Santa Barbara County's congestion management program (CMP) level of service (LOS) threshold, LOS D, for roadways and intersections on the CMP system. The impacts of the three "analysis alternatives", the No Build and the Build alternative are tabulated in Table S-5.

The Pricing/Enhanced TDM analysis alternative achieves the greatest degree of improvement in the Measures of the Problem, Measures of the Solution, Measures of Effectiveness and Measures of Environmental and Community Impact of the three alternatives to the highway widening. This is primarily due to the assumed area wide parking fee disincentive. The best forecast traffic Level of Service on Highway 101 and lowest traffic volumes on parallel arterials are still predicted to result from the highway widening. This is due to the faster travel speeds which result from the additional capacity offered by the widening, making Highway 101 the most attractive route to drivers, even in the face of increased traffic volumes on Highway 101 predicted for the Build alternative. The highway widening is still predicted to result in the lowest traffic volumes on parallel arterials. Travel speeds will be faster as a result of the additional capacity, even in the face of increased traffic volumes predicted for the Build alternative.

S.1.3.1 Measures of the Problem

Measures of the Problem compare the forecast traffic volumes and resulting levels of service along Highway 101 and on parallel arterials. Highway 101 evaluations consider the average daily traffic volumes and the peak hour level of service congestion which reflects the directional split in traffic flow. The parallel arterial comparison is based on average daily traffic as directional splits were not available for these facilities.

Highway 101 Traffic Volumes and Level of Service (LOS). Vehicle Miles of Travel (VMT) on Highway 101 are forecast to increase approximately 43 percent over 1993 levels by the year 2015 for the No Build alternative. Forecast VMT varies slightly among the alternatives, with the Build alternative forecast to have the highest VMT on Highway 101 and the Pricing/Enhanced TDM alternative the lowest, with a difference of 16 percent between them.

Only the Build alternative is forecast to provide for acceptable (as defined by the County's CMP) traffic flow (LOS D or better) along all segments of Highway 101 on an average daily basis in the year 2015. Based on measures of congestion, the Pricing/Enhanced TDM alternative is the next most effective after the Build alternative in relieving forecast traffic congestion in the Corridor. The forecasts show that the worst LOS conditions on Highway 101 in the study Corridor will exist both east of Salinas Street and east of San Ysidro Road. Highway 101 in the No Build alternative as well as in the Enhanced Bus and Rail Transit analysis alternatives is forecast to operate at LOS F in the p.m. peak at these locations, compared to LOS E in 1993. The Build alternative is forecast to improve Highway 101 traffic LOS east of Salinas Street to LOS D and to keep a level of LOS E east of San Ysidro Road. The Pricing/Enhanced TDM analysis alternative offers the best forecast LOS on Highway 101 of all the alternatives to the widening, keeping both sections of the highway operating at LOS E in the p.m. peak period.

Parallel Arterials and CMP Intersections. The No Build alternative results in the highest forecast traffic volumes on parallel arterials because forecast congestion on Highway 101 will divert more traffic to local roads. The Enhanced Bus and Rail Transit analysis alternatives are forecast to provide slight reductions in traffic volumes on parallel roads compared to the No Build volumes. Increasing congestion on Highway 101 will result in traffic diversion to the parallel arterials. The Pricing/Enhanced TDM analysis alternative is forecast to result in traffic volumes on parallel arterials slightly higher than 1993 levels, but lower than all alternatives except the Build alternative, which is forecast to have arterial volumes less than 1993 values.

CMP intersections are generally forecast to experience improved LOS under the Build, Bus, Rail or Pricing/Enhanced TDM alternatives over those forecast for the No Build alternative. Two intersections are predicted to fail the CMP threshold (LOS D) under the No Build alternative and two are predicted to fail the threshold under the Build alternative (See Table S-6). It is the Pricing/Enhanced TDM alternative, with its major shift of trips to carpooling and vanpooling which is predicted to result in the greatest improvements in local intersection performance. None of the critical intersections are predicted to fail under the Pricing/Enhanced TDM alternative.

**Table S-6
Congestion Management Plan Intersection Analysis**

INTERSECTION	91- 94 CMP	2015 NO-BUILD	2015 BUILD	2015 ENHANCED BUS	2015 ENHANCED RAIL	2015 PRICING/ ENHANCED
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	LOS				TDM						
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS			
	(1)										
U.S.101 NB. Milpas St.	D	.78	C	.85	D	.75	C	.75	C	.62	B
U.S. 101 SB- off/ Mission St.	D	.99	E	.99	E	.94	E	.94	E	.82	C
U.S. 101 NB- off/ Las Positas	D	1.05	F	.82	D	1.04	F	1.04	F	.77	C
U.S. 101 NB/EW/ Calle Real	D	.87	D	.69	B	.74	C	.74	C	.55	A
Castillo Blvd./ Montecito Street	D	.48	A	.54	A	.47	A	.47	A	.37	A
Calle Real / U.S. 101	D	.68	B	.98	E	.62	B	.62	B	.49	A

The LOS results above reflect Intersection Improvements identified in the 1993 RTP or the 1994 CMP.

(1) V/C is volume to capacity ratio for highest traffic level intersection approach volume.

S.1.3.2 Measures of the Solution

Measures of the Solution focuses on the ability of each "analysis alternative" to result in a shift in travel mode, either to transit or bicycle.

Daily Transit Trips and Percent of Trips Made by Transit.

Compared to the Build alternative, the Pricing/Enhanced TDM alternative is estimated to result in a reduction of 109,100 daily vehicle trips in the Corridor. This is primarily due to the area parking fee on each SOV trip taken. The Pricing/Enhanced TDM alternative achieves a forecast transit share of 2.4 percent, a level higher than that predicted under the No Build alternative while lower than the Bus or Rail alternatives because the Pricing/Enhanced TDM alternative included no complementary improvements in transit service, only incentives and disincentives encouraging its use (see Section S.1.1.4).

Average Vehicle Occupancy in the Corridor. The average daily vehicle occupancy (AVO) is forecast to remain relatively constant with today's AVO under either the Build, Rail Transit or the Enhanced Bus alternative. A slight decrease in AVO is forecast under the Build alternative which is attributable to increased travel speeds and reduced congestion in the Highway 101 Corridor, making it less attractive for travelers to carpool. Increases predicted for the Enhanced Bus or Rail alternatives reflect the increase in transit ridership. The Pricing/Enhanced TDM alternative is forecast to achieve the largest increase in AVO of all "analysis alternatives" evaluated, with a major shift of travelers into carpools help to defray the costs of the \$3.00 per day SOV parking charge as well

as reflect the effect on mode choice of the assumed employer incentives to use alternative modes included in this alternative.

Percent of Bicycle Trips. Changes in the numbers of bicycle trips are greatest for the bus and Rail Transit analysis alternatives as the shorter trip lengths associated with bicycling (1-6 miles) and the additional facilities at stations will create an incentive for commuters with longer commutes. These trips will have less impact on Highway 101 traffic volumes than changes in other trip types. The U.S. Census *1990 Journey to Work Survey* (U.S. Census, 1992) showed the Isla Vista area as having the highest share (27.2%) of bicycle use in the County. The addition of rail service or enhanced bus service to the UCSB campus area further supports increases in the bicycle share to levels higher than those resulting from the Pricing/Enhanced TDM alternative.

S.1.3.3 Measures of Effectiveness

Effectiveness measures compare the costs of building and/or operating each alternative with the amount of improvement on Highway 101 traffic flow. This is measured as a cost per trip reduced. The Pricing/Enhanced TDM alternative results in the most "bang for the buck". Implementation of employer-based TDM measures and pricing disincentives which have significant impacts on driver choice, do not require the substantial implementation costs that the other alternatives do. It is significant to note that both the Pricing/Enhanced TDM alternative and the Enhanced Bus alternative can be implemented at less total cost (and less annualized cost) than either the Build or Rail alternative. The Enhanced Bus analysis alternative is second to the Pricing/Enhanced TDM analysis alternative in measures of effectiveness. The capital costs associated with the Enhanced Bus Transit alternative are substantially less than those estimated for either the Rail Transit or the Build alternatives. Operating and maintenance costs per vehicle trip reduced are comparable to those estimated for Light Rail transit. Trips on Highway 101 are not reduced under the Build alternative and therefore are not reflected in the analysis.

S.1.3.4 Measures of Community and Environmental Impact

A combination of qualitative and quantitative evaluation measures were developed to assess the community and environmental impacts of the "analysis alternatives". Social impacts receive a more subjective rating system with a plus "+" indicating a positive impact, an "X" indicating no perceived impact and a "--" indicating a negative impact as a result of the alternative. Rating systems for social impacts are explained in Chapter 4 and Appendix D.

Impact on Vegetative Cover. The greatest impacts on vegetative

cover are estimated to occur with the Build alternative, followed by the Enhanced Bus alternative. The impacts under the Enhanced Bus alternative are associated with the construction of the intermediate bus stations along the freeway. Some minor impacts to vegetation are expected with the Rail Transit alternative, in the vicinity of the proposed new and expanded rail stations. None are predicted for the Pricing/Enhanced TDM alternative.

Neighborhood Intrusion/Impact on Community Character. This criteria considers increases in traffic on local arterials, increased frequency of buses in residential neighborhoods and compatibility with current land uses to assess impacts of neighborhood intrusion and community character. Community impacts to neighborhoods are not expected to result from the Pricing/Enhanced TDM alternative. New facilities and increased bus service are not needed to serve the additional riders from the Pricing/Enhanced TDM alternative when compared with either the Rail Transit or Enhanced Bus alternatives. The Rail Transit alternative is considered compatible with the types of land uses encountered in the vicinity of each station. Provisions for auto and bus transit ingress and egress would need to be examined. At several locations extensive redesign of the existing arterials and local streets would be needed to make such candidate locations viable. No impacts are predicted from the Pricing/Enhanced TDM alternative for this criteria.

Compatibility with Long-Term Comprehensive Planning. Both the City and County of Santa Barbara's general plans and Carpinteria's general plan recognize the need for expanded carrying capacity in the Highway 101 Corridor to accommodate a projected increase in travel demand (Caltrans, March 1993). Express bus service in the freeway would increase the person trip carrying capacity of the Corridor. Enhanced and expanded local bus service will provide additional service capacity between portions of the Study Area therefore this alternative is considered compatible with the local plans. The Pricing/Enhanced TDM alternative is predicted to be compatible with long term comprehensive planning as the predicted trip reductions will provide the available capacity needed in the Highway 101 Corridor.

S.2 RECOMMENDED SOLUTIONS

A multimodal transportation strategy is recommended as an alternative to widening Highway 101. The strategy consists of multiple action items to be implemented by agencies, local employers, business and public interest groups of the South Coast communities, sometimes independently and sometimes jointly. Implementation is accomplished through individual actions and through an annually repeated cycle of monitoring and adjustments prepared jointly by all members responsible for actions. The monitoring and adjustment cycles ensure actions

occur or are enhanced to keep pace with actual traffic growth during the next 10 to fifteen years. Currently available funding is identified for reprogramming and alternatives are offered to raise money for unfunded actions. The schedule includes time to select and adopt a preferred funding source.

This recommendation is detailed and complex. In comparison, widening the highway may appear simple. It relies on the active participation of all segments of the South Coast community. The monitoring and adjustment cycles place the responsibility for performance of individual action items and the decisions on adjustments to actions on all segments of the South Coast community. The recommended actions and monitoring and adjustment cycles can lead to an alternative transportation environment which should entice the user and compel its use. The actions identify short term and long term programs and projects which can be funded and implemented to accommodate future travel through the use of alternative modes. This is not any easy choice. Funding, implementation and regional issues of the multimodal transportation strategy are many. These have been listed and are discussed in more detail in Chapter 5.

S.2.1A Recommended Multimodal Transportation Strategy

The multimodal transportation strategy builds from key elements of the Pricing/Enhanced TDM "analysis alternative" while incorporating selected elements from the enhanced bus and rail "analysis" alternatives into an integrated and phased program. Seven elements are recommended.

- Enhancement of the City/County TDM Ordinance and the *Traffic Solutions* program,
- Expanded transit services,
 - Bicycle system improvements,
 - Highway 101 operational improvements,
 - Land use planning considerations to facilitate use of alternative modes,
 - Performance monitoring of Highway 101, and
 - Strategies to reduce visitor/tourist auto trips.

An implementation schedule, a monitoring and adjustment process, and a funding element complete the multimodal transportation system package. Table S-7 identifies the detailed elements of the seven components and the action time frames, responsible agencies and the recommended monitoring or programming tools for each element. Recommendations are intended to be phased in over time, as traveler response warrants the expansion of services and programs.

1.0 Enhance the City/County TDM Ordinance and *Traffic Solutions* Programs

Traffic Solutions in conjunction with local employers, MTD and SBCAG, should collect more and better evaluative data on

individual employer strategy effectiveness at reducing HOV trips.

Traffic Solutions should assess the current, most effective, TDM strategies and their applications based on local and national experience (Comsis et. al., 1993).

Expand Promotional Activities for Enhanced TDM. *Traffic Solutions* should target during the next few years its promotional activities aimed at employers to focus on those TDM strategies which have been identified as effective. Promotional activities should include transit subsidies, a parking cash out program, 4/40 work schedules, and telecommuting.

Traffic Solutions, in coordination with MTD, should encourage employers and MTD to experiment with financial incentives for transit ridership.

SBCAG, in association with the local chambers of commerce, the Santa Barbara Conference and Visitors Bureau, the Santa Barbara Industrial Association, the Coalition for Labor, Agriculture and Business, Grass Roots 101 and other local business and advocacy groups should develop a parking pricing demonstration program in the Highway 101 Corridor. Such a demonstration program should quantify how a parking pricing program affects employee trip reduction and local businesses.

Traffic Solutions should establish a TDM ordinance review committee which includes local business community and citizens group representation to review the existing TDM ordinance provisions.

Traffic Solutions should evaluate the effectiveness of the enhanced TDM ordinance in conjunction with the Congestion Management Plan (CMP), two and five years after the ordinance revision, if pursued.

11 Establish an expanded education effort through *Traffic Solutions* to include broader information targeted at the general public, as well as the tourist, business traveler, and visitor.

12 SBCAG and its member agencies should develop a funding strategy with identified funding sources for the enhanced TDM activities identified for *Traffic Solutions*.

Expand Transit Services.

SCAT and MTD should introduce peak period express bus service between Oxnard and Ventura and Carpinteria, Montecito/Summerland, downtown Santa Barbara, Goleta as well as UCSB.

MTD should prepare an operations study which identifies costs of: additional express bus services, additional local shuttle service to serve express bus stops, freeway flyer transit station locations, and additional maintenance facilities needed to support the expanded service.

MTD and SBCAG should prepare and implement a funding strategy to implement the recommended service improvements based on the costs identified in the operations study.

MTD, Carpinteria, the City and County of Santa Barbara, SBCAG, and Caltrans should prepare a detailed freeway flyer transit station development program which refines and designs transit stations as located in the Highway 101 right of way and construct the stations.

Caltrans, MTD, Carpinteria, the City and County of Santa Barbara, and SBCAG should develop park and ride lots at selected locations along the Corridor.

3.0 Implement Bicycle Systems Improvements

Complete the missing segments and install identified new facilities - Phase I.

Complete the *Regional Bikeway Program's* (SBCAG, 1994) intermodal connection action program.

31. Complete the *Regional Bikeway Program's* (SBCAG, 1994) funding action program.

Complete the *Regional Bikeway Program's* (SBCAG, 1994) inter-jurisdictional action program.

32. Complete the missing segments and install identified new facilities - Phase II.

4.0 Define, Fund and Construct Operational Improvements to Highway 101.

Caltrans, in association with the City and County of Santa Barbara, should test and establish a ramp metering system on selected interchange on-ramps in the Highway 101 Corridor in the South Coast.

Design, fund, and construct programmed interchange improvements on Highway 101 at Milpas Street, La Cumbre Road, Route 154 north and south, and at Storke Road as programmed in the Measure D Strategic Plan.

Define and establish an electronic detection system and monitoring systems within the South Coast Highway 101 Corridor.

Define and establish an incident response program within the Highway 101 Corridor.

41. Define locations for and establish a changeable message sign program to alert motorists to delays, accidents, and alternative routes.

42. Define locations for and establish a Highway Advisory Radio (HAR) program within the South Coast Highway 101 Corridor.

5.0 Initiate a Transit Oriented Land Use Transition Program.

Establish Policy-Based Commitments from Local Governments.

Develop Transit-Supportive Urban Design Packages for Selected Station Locations.

6.0 Visitor/Tourist Auto Trip Reduction Program

SBCAG and Traffic Solutions should establish a Tourism Travel Incentive Program with the Conference and Visitors Bureau.

7.0 Monitor and Report on Performance of Highway 101 and the Multimodal Transportation Strategy

Expand existing Caltrans and local agency traffic and travel monitoring efforts in the following areas:

Traffic volumes,

- 1 Average vehicle occupancy,
- 2 Travel speeds and levels of congestion,
- 3 Accidents,
- 4 Trip purpose and components of travel,
- 5 Origins and destinations,
- 6 Effects of Tourist Promotional Efforts, and

TDM Monitoring.

SBCAG, with input and financial support from Caltrans and local agencies, should create a "State of the Corridor" newsletter.

Develop a Funding Strategy for the enhanced monitoring and reporting efforts.

Prepare three to five year evaluation reports which compare the implementation status and effectiveness of individual action elements with the Highway 101 monitoring reports. Develop adjustments and revisions to the action items list in response to the results.

S.2.2 Implementation, Scheduling and Monitoring

The multimodal transportation strategy is implemented through regular cycles of monitoring Highway 101 Corridor performance and adjustments to actions by implementing agencies in response to the results. This strategic implementation approach is the essential component of the entire recommendation.

Thresholds of Significance Which Require Adjustments to Implementation Actions. A threshold of significance is essential to determine whether performance monitoring results require adjustments or acceleration of actions. Separate thresholds are recommended for highway, local roadways, express transit service, and TDM performance. Recommended thresholds are:

Highway 101 Performance. A traffic level of service level (LOS) of E and average operating speeds of 40 miles per hour on Highway 101 for consecutive segments of the highway totaling 3-4 miles in length over two consecutive years.

Local Roadway Performance. Level of Service D for CMP intersections as adopted in Santa Barbara's current *Congestion Management Plan* (SBCAG, 1995).

Express Bus Service Performance. Express bus transit ridership of 35 or more riders per revenue vehicle hour.

TDM Performance. Individual employer attainment of existing TDM ordinance performance standards (average regional average of 6 percent over baseline) through 1997 and to the revised standards after the 1997 ordinance revision cycle. Employer based share of TDM trip reductions will not be expected to exceed the estimated 10 percent reduction in home based work trips.

No individual performance thresholds are recommended for bicycle, highway operational improvements, transit oriented land use, or visitor tourist trip reduction program elements as their impact will be reflected in the four measures above.

How to Implement Monitoring and Adjustment Cycles. The implementation monitoring and adjustment process for each period is listed below.

First Implementation Period - 1995 (Adoption of Strategy) - 2000
Develop the monitoring program details during the first two to three years.

Initiate and complete period one action elements according to descriptions and recommended schedule.

Monitor and compare results with performance thresholds annually.

Initiate first program adjustment cycle in the fifth year.

Develop, evaluate and adopt recommended adjustments to action program.

Complete recommended funding strategy actions and adopt funding program within the first five year period.

Incorporate funding actions during regularly scheduled RTP, RTIP, SRTP and capital improvement program cycles.

Evaluate results of the Pricing Demonstration Program.

Second Implementation Period - 2001 - 2005

Initiate and complete period two action elements according to descriptions and recommended schedule.

Continue to monitor and compare results with performance thresholds annually.

Review performance thresholds and adjust as needed.

Initiate adjustment cycles as needed (expected to be annually) based on monitoring results.

Evaluate the TDM actions to determine if employer based trip reduction threshold has been reached and if pricing program must be established.

Third Implementation Period - 2006 - 2010

Initiate and complete period three action elements according to descriptions and recommended schedule.

Continue to monitor and compare results with performance thresholds annually

Evaluate revised bus service performance and adjust frequencies as suggested by the results.

•• Initiate land use monitoring at freeway flyer and other

transit stops to establish base case for future comparisons.
Review performance thresholds and adjust as needed.
Initiate adjustment cycles as needed (expected to be annually)
based on monitoring results.
Re-evaluate TDM actions and any previous pricing decisions to
determine needed adjustments.

Fourth Implementation Period - 2011 - 2015

Compare monitored traffic with updated RTP forecasts to begin to
adjust program

Begin monitoring comparison of changes to land use densities in
the vicinity of freeway bus stations (may only need to be
twice during this period).

Continue to monitor and compare results with performance
thresholds annually

Review performance thresholds and adjust as needed.

Initiate adjustment cycles as needed (expected to be annually)
based on monitoring results.

More detailed schedules for individual action item
implementation are discussed in Chapter 5. Actual timing for
individual actions beyond the initial 3 to 5 year start-up
period must be accelerated if congestion levels increase at a
faster pace than actual traffic reductions occur as a result of
mode shifts. Adjustments will require, at some time in the
second or third period, a choice of implementing a pricing
strategy or returning to the build alternative. This will be a
difficult choice for the South Coast whenever it occurs.

S.2.3 Funding the Multimodal Transportation Strategy

What Does The Multimodal Transportation Strategy Cost? Table S-
8 details capital and operations cost estimates. Additionally,
annual O&M bus costs are initially estimated at approximately \$6
million a year, including transit farebox revenues. It is
assumed that 25 to 30 percent of the bus O&M costs could be
recovered through the farebox for the recommended new services
as with current MTD services. The recommended operations plans
and funding strategy actions should be used to detail and refine
these estimates.

Available Funding and Ability to Be Reprogrammed. At the
present time, the first two segments of the Highway 101 widening
project (from Milpas Street to Padaro Lane) are included in the
State Transportation Improvement Program and funding for the
project has been allocated (approximately \$63 million) by the
California Transportation Commission. In addition, SBCAG has
allocated approximately \$19 million from Measure D sales tax
moneys to incorporate locally desired enhancements and
amenities. Current budget shortfalls at the state level and
reprogramming for seismic retrofitting of existing highway
infrastructure, cause uncertainty in funding availability in the
1997-1999 time period. Use of these funds for the recommended
strategy in this same time frame would therefore also be

uncertain. The phased implementation, could allow the draw down of funds to be spread over more fiscal years, improving with the availability of the funding stream.

Table S-8
Estimated Capital and O&M Costs for Multimodal Strategy

	Total Capital Costs (million 1994\$)	Annual Program and O&M Costs (1,000 1994 \$)
Enhanced TDM Actions	--	\$1,000 - \$1,500 (1)
Expanded Transit Services	\$29.0 - \$35.0	\$4,500 - \$5,000 (2)
Bicycle System Improvements	\$2.0 - \$2.5 (3)	TBD
Highway Operational Improvements	\$19.0 - \$25.0	--
Transit Oriented Land Use Programs	--	\$50-\$100
Strategies to Reduce Visitor/Tourist Auto Trips	--	\$100-\$300
Performance Monitoring of Highway	--	\$20-\$30
101		
Totals	\$50.6 - \$62.5	\$5,670 - \$6,840

(1) Includes both public and private sector costs, in excess of current program costs.

(2) Additional transit O&M costs net of transit fare revenues.

(3) Source: A. Lawler, SBCAG Staff, November, 1994.

Funds for the reprogramming actions require the approval of SBCAG and the California Transportation Commission (CTC) and/or local agencies and include:

Reallocate current STIP allocations of eligible federal and state funds during the next RTIP update and conformity review (assumes federal portion (±\$60 million) are ISTEA Surface Transportation Program (STP) funds).

Reprogram state matching funds (20 percent) to identified Highway Operational Improvements.

Reprogram (±\$2.7 million) Measure D or Transportation Development Act (TDA) funds for the STP-required 20 percent match for bus fleet expansion and station construction.

Local Funding of bicycle improvements and maintenance, *Traffic Solutions* and other TDM actions through annual budget and capital improvement programs.

- Explore alternative federal funding (Federal Transit Administration (FTA) Section 3 (now called 5309) Bus Capital)
- Evaluate reallocation of CMAQ (Congestion Mitigation and Air Quality Funds) for transit O&M costs, (for only a maximum period of two years).

The estimated cost of the initial bus service element is an additional \$4.5-\$5.0 million in annual public subsidies. This is equivalent to approximately a 1/7 percent sales and use tax applied countywide. In addition, there will be an estimated \$1.3 to \$1.8 million per year in public and private sector program costs to provide the other elements of the multimodal strategy.

New Funding Sources. The county and local jurisdictions will need to consider new sources for funding the multimodal improvement strategy. These would include:

A countywide increase in the local sales and use tax for transit operations which would require a two thirds voter approval and approval by the cities and county.

Property tax increases by local jurisdictions, requiring a two thirds voter approval.

Assessment districts covering the area receiving the benefits of the transportation improvements, which would have to be approved by the cities and the county.

Transportation Uniform Mitigation Fees - a cooperative interjurisdictional funding program structured to meet California nexus requirements and to provide revenues for specific Corridor improvements.

Parking pricing approaches such as parking discounts for carpools and vanpool, parking fees, and parking cash-out which would have to be approved by local jurisdiction and employers.

These are likely to be politically difficult to enact, and an extensive voter education campaign would need to be undertaken to convince residents of the South Coast that additional taxes and/or fees are ultimately worthwhile to their overall quality of life.

S.2.4 Policy Issues Raised By Choosing A Multimodal Alternative To The Highway 101 Widening

Three general policy issues suggest themselves in the Highway 101 alternatives analysis: fiscal, implementation and regional.

Others will suggest themselves to the reader. Issues within each policy area are listed and described in Chapter 5. In the end, policy issues are left to the decision makers.

Fiscal issues in selecting a multimodal strategy

- The risk of reprogramming available funds from the widening to elsewhere in the state.
- The ability of currently programmed funds to be used for other improvements (e.g. transit capital, bicycle facilities, highway operations).
- The ability to obtain new revenue sources for transit

operations.

- The difficulties in establishing funding priorities between recommended elements.
- The potential for public acceptance of any approach to instituting pricing elements.

Implementation issues of the multimodal strategy

- The ability to achieve predicted results with the multimodal strategy is less known than results achieved by widening the highway.
- The effects of not implementing selected elements.
- The community's tolerance of increased congestion during phases of implementation.
- The difficulties in an annual review of and adjustment to actions and elements of the strategy. (How to make it work.)

Regional issues regarding the relationship of the multimodal strategy to other programs and planned projects

- The risk to air quality conformity determinations of changing the Highway 101 project definition.
- Plans to widen Highway 101 between Castillo and Route 217 to eight lanes.
- The issues in intercounty coordination and implementation of the multimodal transportation strategy.
- Rail recommendations from joint SBCAG and VCTC rail study.

S.3 CONCLUSION

The recommended multimodal transportation strategy offers an alternative method to accommodate future travel through the use of alternative transportation modes and related policies such that the need to widen Route 101 between Milpas Street in downtown Santa Barbara and the Ventura County line could be avoided before the year 2015. The study places the ultimate feasibility and success of the approach on the South Coast communities, businesses and individuals. Costs of the alternatives and potential funding sources are identified. The actions will create an alternative transportation environment.

The accompanying implementation program, with its cycles of monitoring and adjusting action items, creates a performance based strategy which will either compel the use of the alternative modes or fail to maintain currently accepted performance standards. The inclusion of bicycle and transit oriented land use actions promotes the community's desire to maintain and enhance a high quality of life and a viable economy.

Will this strategy avoid the need to widen Highway 101 before the year 2015? While there are many site specific success stories to date from around the country where individual programs and policies have measurably reduced SOV use, they have been, to date, much less successful on a Corridor or an area wide basis in urban settings of similar size and character to

the South Coast. The change in ingrained travel habits will be a challenge for the residents and public officials of the South Coast. The *1994 State of the Commute Report* (CTS, Inc.) which annually surveys Los Angeles area commuters, notes that while 80 percent of commuters in areas most affected by the Northridge earthquake reported that they had changed their commute habits, only 2 percent switched to taking the bus or train and 4 percent switched to carpooling from driving alone. Most simply changed their route or working hours. Human nature will be a powerful force in the success or failure of this strategy.

The choice to reduce congestion on Highway 101 through a multimodal transportation strategy in lieu of widening the highway is a fundamental policy decision of the SBCAG board.

Either choice results in impacts to Santa Barbara and its residents. Neither alternative results in a post 2015 solution to forecast traffic growth in traffic. Each choice has opportunities and risks.

**Table S-4
Evaluation Criteria**

Public Identified Evaluation Criteria	TAC/CAC Approved Evaluation Criteria
Measures of the Problem	Measures of the Problem
Future congestion, lack of capacity	. Daily Traffic on Highway 101
Absence of mobility	. Daily Level of Service (LOS) on Highway 101
.• Lack of integration of transportation modes	st Daily Traffic On Parallel Arterials
.• High proportions of single occupant vehicles	Vehicle Miles of Travel (VMT) on Highway
	Vehicle Hours of Travel on Highway 101
	t of VMT Operating at LOS F
	t of VMT Operating at LOS E
	Daily Vehicle Trips Produced in the Corridor
	t Single Occupant Vehicles (SOV)
Measures of the Solutions	Measures of the Solutions
Integration of Transportation Modes	. Daily Transit Ridership
Increase in average vehicle occupancy	. Percent Transit Ridership
.• Increase in transit mode share	e Vehicle Occupancy (AVO) in the Corridor
	t Daily Bike Trips
	e Speed (MPH) on Highway 101
	duction in Daily Vehicle Trips
Measures of Effectiveness	Measures of Effectiveness
Freedom of mobility	st of the Alternative
Maintenance of a viable & healthy local economy	unalized Cost of the Alternative
.• Maximizing "bang for the buck"	ized Total Cost Per Vehicle Trip Reduced
.• Avoidance of the need to widen Highway 101	ized Capital Cost Per Vehicle Trip Reduced
	ized O&M Cost Per Vehicle Trip Reduced
	e Daily Cost Per Driver ????
Measures of Community and Environmental Impact	Measures of Community and Environmental Impact
Safety	.ly Running Emissions
Minimizing environmental harm and damage	ect Energy Consumption
.• Compatibility with long term comprehensive planning	on Vegetative Cover
.• Maintenance of the area's "quality of life"	on Community Character
	Compatibility