ROUTE CONCEPT REPORT SUMMARY
ROUTE 1
SCR R0.00 TO SON 58.6

This report defines the concept for development of Route 1 in District 4 for a 20-year planning period (1985-2005).

SUMMARY

ROUTE CONCEPT:

SEGMENT A - **	SCr-1 P.M. R0.00 to 20.49, D-35, 4-8 lane freeway / 4 lane conventional.
SEGMENT B - **	SCr-1 P.M. 20.49 to 37.45, C-45, 2 lane conventional.
SEGMENT C - **	SM-1 P.M. 0.00 to 26.43, C-45, 2 lane conventional.
SEGMENT D -	SM-1 P.M. 26.43 to 41.0, D-35, 2 lane conventional, P.M 41.0 to 48.56, D-35, 4-6 lane freeway.
SEGMENT E -	SF-1 P.M. 0.00 to 7.08, D-40, 6 lane conventional / 4 lane freeway.
SEGMENT F - **	MRN-1 P.M. 0.00 to 3.35, D-40, 4 lane conventional.
SEGMENT G - **	MRN- P.M. 3.35 to 12.21, D-40, 2 lane ** conventional.
SEGMENT H - **	MRN-1 P.M 12.21 to 26.51, D-40, 2 lane conventional.
SEGMENT I - **	MRN-1 P.M. 26.51 to 5051, D-40, 2 lane conventional.
SEGMENT J -	SON-1 P.M. 0.00 to 58.58, D-40, 2 lane conventional.

** Within these segments, slow vehicle passing lanes will be added on grades as appropriate.

CONCEPT RATIONALE

Route 1 is a major recreational facility serving the Golden Gate National Recreation Area, and State parks and beaches. It is also important to the economy of many small service oriented businesses. Parts of Route 1 accommodate significant volumes of commuter traffic in urbanized area.

AREAS OF CONCERN

By 1995 all segment will experience varying degrees of diminished levels of services. This may result in congestion and operational problems.

IMPROVEMENT

Widen where feasible and make improvements at specific high accident locations.

ROUTE CONCEPT REPORT

ROUTE 1

SCR R0.00 To SON 58.6

Prepared under the direction of:

for CECIL L. SMITH, Chief
Transportation Planning District 4

Recommended Approval:

JOHN J. VOSTREZ
Deputy District Director
Planning and Programming

I approve this Route Concept as the guide toward which today's decision and/or recommendations should be directed.

Approved:

BURCH C. BACHTOLD
District Director of
Transportation

Approved:

D. L. WIEMAN, Chief
Division of Transportation
Planning

Approved:

DONALD L. WATSON
Division of Highways and
Programming

Approved:

JACK KASSEL, Chief
Division of Project
Development

Route Concept Report
Route 1
SCr R.0.00 to SON 58.6

1. ROUTE DESCRIPTION

Route 1 is approximately 574 miles long and traverses 13 counties - Orange, Los Angeles, Ventura, Santa Barbara, San Luis Obispo, Monterey, Santa Cruz, San Mateo, San Francisco, Marin, Sonoma, Mendocino, and Humboldt. The route begins at Route 101 south of San Juan Capastrano and proceeds along the coast through Orange and Los Angeles counties and connects with Route 101 to the vicinity of Las Cruces; passes in the vicinity of Lampoc and Guadalupe and rejoins 101 near Pismo Beach; proceeds along the coast through San Luis Obispo, Monterey, Santa Cruz, and San Mateo counties to Route 280 south of San Francisco; traverses San Francisco to Route 480; and from Route 101 in southern Marin County, proceeds along the coast through Marin, Sonoma, and Mendocino counties to its terminus at Route 101 near Fernbridge in Humboldt County.

There are breaks in route from Oxnard in Ventura County to Las Cruces in Santa Barbara County, with continuity provided by Route 101; from the south junction of Route 280 to the north junction of Route 280; and from Route 480 in San Francisco to Manzanita in Marin County, with continuity provided by Doyle Drive, the Golden Gate Bridge, and Route 101.

Within District 4, Route 1 begins at the Monterey/Santa Cruz County line (P.M. R0.00) and terminates at the Sonoma/Mendocino County line (P.M. 58.58). For most of this length, Route 1 is a two lane conventional highway with some passing lanes on sections of moderate grade (see Exhibit A). Route 1 is a four lane freeway at the Monterey/Santa Cruz County line and transitions to a four lane divided expressway and then to a two lane conventional highway in the City of Santa Cruz. In San Mateo County, it is generally two lanes to Pacifica where it becomes a freeway and then a six lane conventional highway in San Francisco. From Lake Street in San Francisco to Doyle Drive (the approach to the Golden Gate Bridge) Route 1 is a four lane freeway. From the junction with Route 101 in Marin County, Route 1 is a two lane conventional highway to the Sonoma/Medocino County line.

Traveled way widths on the two lane sections vary from 20 feet to 56 feet (generally 24 feet). Shoulders are mostly paved and widths generally vary from 4 to 8 feet. The two lane sections are undivided with either a single traffic stripe or two-way barrier stripes. The route traverses flat and rolling terrain. Most grades are moderate.

Almost the entire route length within District 4 is part of the Scenic Highway System.

Route 1 is functionally classified as a minor arterial in the rural segments and principal arterial in the urban segments.

2. ROUTE SEGMENTS

Segment A: 4-SCr-1, P.M. R0.00 to P.M. 20.49

Segment A extends from the Monterey/Santa Cruz County boundary to the City of Santa Cruz.

Segment B: 4-SCr-1, P.M. 20.49 to P.M. 37.45

Segment B traverses the City of Santa Cruz and proceeds along the coast to the San Mateo County boundary.

Segment C: 4-SCr-1, P.M. 0.00 to P.M. 26.43

Segment C proceeds along the sparsely settled coast to Miramontes Point Road in Half Moon Bay.

Segment D: 4-SM-1, P.M. 26.43 to P.M. 48.56

Segment D proceeds along the coast traversing the cities of Half Moon Bay and Pacifica to the San Francisco City of County boundary.

Segment E: 4-SF-1, P.M. 0.0 to P.M. 7.07

Segment E traverses the City & County of San Francisco to just south of the Golden Gate Bridge.

Segment F: 4-MRN-1, P.M. 0.00 to P.M. 3.35

Segment F extends from the junction with Route 101 to the southerly intersection of Panoramic Highway.

Segment G: 4-MRN-1, P.M. 3.3 to P.M. 12.21

Segment G extends from the southerly intersection of Panoramic Highway to its northerly intersection at Stinson Beach.

Segment H: 4-MRN-1, P.M. 12.21 to P.M. 26.51

Segment H extends from the northerly intersection with Panoramic Highway to Sir Francis Drake Boulevard at Olema.

Segment I: 4-MRN-1, P.M. 26.51 to P.M. 50.51

Segment I extends from Sir Francis Drake Boulevard, proceeding along the coast to the Sonoma County Boundary.

Segment J: 4-SON-1, P.M. 0.00 to P.M. 58.58

Segment J extends from the Marin/Sonoma County boundary, and proceeds along the coast to the Sonoma/Mendocino boundary.

3. ROUTE PURPOSE

Route 1 generally traverses a major recreational area and provides access to beaches, State parks and National recreation areas. The magnificent vistas and mild weather indigenous to this coastal highway also make it desirable for residential development, and small residential communities are prevalent along the route.

Most businesses along Route 1 are service oriented - restaurants, motels, boating and fishing, etc. - and depend upon the access provided by the route for survival.

Although significant recreational traffic is prevalent in and around Santa Cruz, there is also considerable commuter traffic during week day peak periods of travel.

There is also considerable commuter traffic along Route 1 in northern San Mateo County.

Traffic traveling through San Francisco on Route 1 is predominantly commuter and commercially oriented during the week. On weekends Route 1 carries heavy traffic most of which is recreational, including traffic heading for the Golden Gate Bridge.

Traffic on Route 1 in southern Marin County (Tamalpais Valley to the Golden Gate Bridge) is heavily commuter oriented during weekday peak periods of travel, and is substantially recreationally oriented on weekends and holidays during the spring/summer period.

4. PARALLEL ROUTES

In San Mateo and Santa Clara Counties, Route 35, 280 and 101 provide parallel alternatives to Route 1. Route 101 is a major north to south route and can be reached in San Jose via Route 152 and 129 in Watsonville. Route 280 can be reached in San Jose via Route 17 from Santa Cruz, while Route 35 can be reached, via Route 9 in Santa Cruz, Route 84 near San Gregorio Beach, and Route 92 in Half Moon Bay, San Mateo County. Both Routes 35 and 280 terminate in San Francisco.

Route 101, a principal arterial on the Federal-Aid-Primary State Highway System with an annual average daily traffic of 25,000 to 219,000 vehicles varies from a 4 lane to an 8 lane freeway, and is a parallel alternative to Route 1 in Marin and Sonoma Counties.

Route 280, a principal arterial on the Federal-Aid-Interstate System carries 60,000 to 146,000 AADT, is also a 4 to 8 lane freeway.

Route 35, a major collector on the Federal-Aid-Secondary Systems carries only 300 to 21,000 AADT, and is mostly conventional highway. A 3 mile segment in San Mateo County is a four lane expressway which transitions into a freeway.

5. EXISTING FACILITIES

Route 1 is on the Federal-Aid-Primary System. Of the 202 miles within District 4, about 75% of the eintire length is a 2 lane conventional highway, while the remaining 25% varies from 4 to 6 lane divided freeway.

There are two breaks along the route within the District. The first is a one half mile break between the south and north junctions with Route 280 in Daly City and the second is approximately 6 mile break from the north end of the Presidio Tunnel in San Francisco to Manzanita (Junction of Routes 1/101) in Marin County.

State Coastal Act limits Route 1 to 2 lanes in any location outside the urban boundaries. Implementation of any route concept which exceeds 2 lanes in a rural area would require an amendment to the plan.

6. CURRENT CONSTRUCTION PROJECTS

Identified in the PSTIP or 1984 STIP for District 4 are the following improvement projects on Route 1. These are exclusive of rehabilitation projects.

	CO/PM LIMITS	LOCATION	DESCRIPTION OF PROJECT
SCR:			
	12.1 TO 12.2	PARK AVE.	WIDEN RAMP AND PLACE SIGNAL AT INTERCHANGE
	13.2 TO 13.3	BAY AVE.	MODIFY INTERCHANGE AND SIGNALS
	13.6 TO 13.7	41ST AVE.	MODIFY INTERCHANGE AND ADD SIGNALS
	14.5 TO 15.2	SOQUEL AVE.	MODIFY INTERCHANGE
	17.6 TO 17.7	CITY OF SANTA CRUZ	INTERSECTION IMPROVEMENT IMPROVEMENT WITH RTE. 9
	18.0 TO 18.1	CHESTNUT ST.	IMPROVE INTERSECTION
SM:			
	41.2 TO R43.2	CRESPI DR. TO WEST PORT DR.	WIDENING AND INSTALL MEDIAN BARRIER
	34.0 TO 41.0	HALF MOON BAY AIRPORT TO LINDA MAR BLVD. (DEVILS SLIDE)	TWO LANE BY PASS WITH PASSING LANES ON STEEP GRADES.*

*Caltrans has recently processed a final EIR for a 2 lane road with slow vehicle passing lanes on steep grades on a new alignment which would bypass Devil's Slide, traversing an area seven miles inland from Pacifica to the vicinity of Half Moon Bay Airport. This is the result of a major study to provide a safe, dependable and stable highway around Devel's Slide. The EIR was approved on January 3, 1985. The San Mateo County Board of Supervisors approved the necessary amendment to the Local Coastal plan on April 18, 1985. Action by the State Coastal Commission is pending. Construction is scheduled to begin in the Fall of 1985.

7. CURRENT OPERATING CONDITIONS

General:
Public Transit - The Santa Cruz Metropolitan Transit District provides bus service throughout the City of Santa Cruz and within the County, with some service to remote locations in the surrounding hills.

The San Mateo County Transit District (SamTrans) provides bus service from Half Moon Bay and Pacifica to the more populous eastern part of the county, and to San Francisco.

The San Francisco Municipal Railway (MUNI) provides a high level of bus service throughout San Francisco, including the Route 1 corridor.

The Bay Area Rapid Transit (BART) station at Daly City is adjacent to the north Junction of Rtes. 1/280. This affords Peninsula commuters residing in the Rte. 1 corridor the opportunity to transfer to BART and proceed to destinations in San Francisco and the East Bay.

Peerless Stages provides bus service between Santa Cruz and San Jose via Route 17.

Golden Gate Bridge, Highway and Transportation District (GGBHTD) provides commuter bus service from Sonoma and Marin Counties to San Francisco as well as local service within Marin County. The Route 1 corridor is included from the junction of Rtes. 1/101 to San Francisco. Service from the junction of Rtes. 1/101 to Almonte Blvd. is adequate. Beyond here, however, service is limited to a few schedules to Stinson Beach and Point Reyes.

Rail Service

Caltrans operates the Peninsula train from San Jose to San Francisco which serves the populous eastern portion of Santa Clara and San Mateo counties. It provides little service to coastal residents, however.

Park and Ride Facilities

There are two major park and ride facilities in the Route 1 corridor. One at Linda Mar in Pacifica and one at the junction of Rtes. 1/101 in southern Marin County. Each has approximately 200 parking spaces, each is directly served by public transit, and each is filled to capacity each week day. Existence of these facilities encourages the use of transit and other ridesharing modes.

Twenty spaces are availble in the parking lot of Breuner's Furniture Store at Serramonte Shopping Center in Daly City. This is adjacent to the intersection of Rtes. 280 and 1.

There are a number of park and ride lots located on State R/W at Rte. 101 in Marin and Sonoma Counties. The largest of these are at Seminary Drive in Mill Valley (98 spaces), Lucas Valley Road in San Rafael (212 spaces), Alameda del Prado in Navato (93 spaces), and at Route 116 in Cotati (186 spaces).

Bicycle Facilities

There are limited designated bicycle facilities along Rte. 1 in Pacifica and Santa Cruz. Although many bicyclists use this route, most of it has narrow or sub-standard shoulders. Portions of Rte. 1 in Marin County were widened to provide shoulders for Bikecentenniel Route usage.

High Occupancy Vehicles (HOV) Lanes

There are no HOV facilities in the Route 1 corridor. However, there are HOV lanes in both directions on Route 101 from north of the Richardson Bay Bridge to south of Greenbrae. These lanes are restricted to carpools and buses southbound during the morning peak and northbound during the evening peak.

There is also a conta-flow bus lane from just north of the Golden Gate Bridge to south of the Richardson Bay Bridge. Buses (only) run north in the evening peak. Two existing lanes are used, one for travel and one as a buffer between southbound traffic and northbound buses.

Highway Facility

Segment A - Monterey/Santa Cruz County Boundary (P.M. R0.00) to the City of Santa Cruz (P.M. 20.49) - Current AADT ranges from 18,000 at the Monterey/Santa Cruz County boundary to 71,000 at the Soquel Drive interchange. Maximum peak hour volumes are 4700 in the northbound direction and 3900 in the southbound direction at Soquel Drive interchange. LOS is D. The above describes traffic operations on the four lane freeway section.

From the end of the freeway, just south of its junction with Route 9, Route 1 is a four lane conventional highway to Mission Street, a distance of approximately 0.8 mile. Route 1 continues, via Mission Street (a 2 lane conventional highway) to the northern city limits of Santa Cruz. Current AADT ranges from 38,000 at Mission Street to 9200 at the northern city limits. Maximum peak hour volumes are 2400 in the northbound direction and 2000 in the southbound direction at Mission Street. LOS is D.

Segment B - City of Santa Cruz (P.M. 20.49) to the San Mateo County Boundary (P.M. 37.45) - Current AADT on the two lane conventional highway section to the north range from 9200 at the Santa Cruz city limits to 4600 at the San Mateo County line. Peak hour volumes are 800 in the northbound direction and 600 in the southbound direction. Level of service is generally A to B.

Segment C - Santa Cruz/San Mateo County Boundardy (P.M. 0.00 to Miramontes Point Road (P.M. 26.43) - Current AADT on this two lane conventional highway is 8000, with a peak hour volume of 1200 in each direction. The level of service is generally A to B.

Segment D - Miramontes Point Road (P.M. 26.43) to the San Mateo/San Francisco County Boundary (P.M. 48.56) - Current AADT ranges from 8000 on the two lane conventional highway at Half Moon Bay to 42,500 on the six lane freeway at Calarinada Avenue Interchange, Daly City. Peak hour volumes range from 500 to 900 in each direction at Half Moon Bay to 3,200 in the northbound direction and 1,800 in the southbound direction at Daly City. Level of service generally ranges from B to D.

Segment E - San Mateo/San Francisco County Boundary (P.M. 0.00) to the Junction of Route 480 and Doyle Drive (P.M. 7.07) - Current AADT ranges from 69,000 on the six lane divided conventional highway at Brotherhoold Way to 53,000 on the four lane freeway between Lake Street and Doyle Drive. Peak hour volumes range from 2,100 in the northbound direction to 2,000 southbound at Brotherhood Way, to 2,400 northbound and 2,900 southbound on the freeway. Level of service ranges from C to F on the six lane conventional highway, and is generally D on the freeway.

Segment F - Route 1/101 (P.M. 0.00) to Southerly Intersection of Panoramic Highway (P.M. 3.35) - Current AADT on this two lane conventional highway ranges from 27,500 at Manzanita to 5,000 at Panoramic Highway. Peak hour volumes range from 1,600 to 600. Level of service ranges from D to E.

Segment G - Southerly Intersection of Panoramic Highway (P.M. 3.35) to Its Northerly Intersection (P.M. 12.21) - Current AADT on this two lane conventional highway ranges from 1,900 to 1,300. Peak hour volumes are from 750 to 500. Level of service is generally C to D.

Segment H - Northerly Intersection of Panoramic Highway (P.M. 12.21) to Sir Francis Drake Boulevard (P.M. 26.51) - Current AADT on this two lane conventional highway is approximately 2,500 with peak hour volumes from 500 to 700. Level of service is generally C to D.

Segment I - Sir Francis Drake Boulevard (P.M 26.51) to the Marin/Sonoma County Boundary (P.M. 50.51) - Current AADT on this two lane conventional highway ranges from 5,700 at Sir Francis Drake to 1,000 at the County line. Peak hour volumes range from 700 to 200. Level of service is generally A to B.

Segment J - Marin/Sonoma County Boundary (P.M. 0.00) to the Sonoma/Mendocino County Boundary (P.M. 58.58) - Current AADT on this two lane conventional highway ranges from 1,000 at the Marin/Sonoma Boundary to 1,600 at the Sonoma/Mendocino Boundary. AADT at Bodega Bay is 4,700. Peak hour volumes range from approximately 200 at the county boundaries to 600 at Bodega Bay. Level of service is generally A to B.

8. PROBLEMS TO THE END OF THE STIP PERIOD, ROUTE CONCEPT AND IMPROVEMENTS

Segment A - Problem - Santa Cruz, an environmentally sensitive community is the site of the University of California at Santa Cruz. Public transit use is encouraged and a significant level of service is provided by the Santa Cruz Metropolitan Transit District. There is also a high level of bicycle usage and facilities are provided to promote the safe use of bicycles.

The primary area of concern is along Mission Street, a two lane conventional highway which traverses a commercially developed area. Level of service here is generally F during peak periods of travel. The accident rate is higher than the Statewide average. The City is seeking improvements to Mission Street which will enhance safety and facilitate the movement of traffic. The city's basic policy, however, is one of no significant growth.

Concept

Monterey County boundary to Rio Del Mar Drive-4 lane freeway.

Rio Del Mar to 41st Avenue-6 lane freeway.

41st Avenue to Route 17-8 lane freeway.

P.M. 17.50 (End Freeway) to Route 9-6 lane freeway.

Route 9 to Mission Street-6 lane freeway.

Mission Street to North City limits-4 lane conventional hwy.

Improvement - Widen existing 4 lane freeway to 6 and 8 lanes as indicated. Widen existing 4 lane expressway, which goes over the San Lorenzo River, intersects Route 9, and goes over the railroad tracks before joining Mission Street, to a 6 lane freeway. Widen Mission Street from 2 lanes to 4 lanes.

Segments B & C-Problem

These two segments are rural two lane conventional highways which traverse flat to rolling terrain with some steep grades, and have some substandard shoulder widths. This causes a problem during periods of nice weather on weekends because beach users park along the shoulders which reduces capacity and causes congestion. Levels of service in 1995 and 2005 are forecast to range from D to F.

Concept - A two lane conventional highway.

Improvement - Widen shoulders and construct slow moving vehicle lanes, where appropriate. Consider intersection improvements at Rte. 84, Pescadero Road, and beaches such as Ano Nuevo, Pescadero, San Gregorio, Bean Hollow, etc.

Segment D-Problem

This segment continues as a two lane conventional highway from Miramontes Point Road at Half Moon Bay, transitions to a four lane conventional highway at Linda Mar Blvd. in Pacifica, to a four lane freeway just south of Sharp Park Road in Pacifica, and to a six lane freeway at its junction with Route 35 in Daly City.

There is significant commuter traffic from Half Moon Bay and Pacifica to the eastern Peninsula and San Francisco. Forecasts indicate that levels of service on the section between Half Moom Bay and Linda Mar Boulevard in Pacifica (2 lane conventional highway) could deteriorate to F by 2005.

Concept - Two lane conventional highway (P.M. 26.43 to 34.0). Two lane conventi[illegible] Highway with slow vehicle passing lanes (P.M. 34.0 to 41.0). Fo[illegible] to six lane freeway (P.M. 41.0 to 48.56).

Improvement - Construct a two lane conventional highway with slow vehicle passing lanes on a new alignment which would bypass Devil's Slide, traversing on area seven miles inland from the vicinity of Half Moon Bay Airport to Pacifica.

Segment E-Problem

The problem on this segment is insufficient capacity to accommodate present and future traffic volumes. Level of service along 19th Avenue in San Francisco is already F during commute hours and on weekends. This segment also crosses Golden Gate Park in San Francisco.

Concept

Six lane conventional highway (P.M. 0.0 to 5.88). Four lane freeway (P.M. 5.88 to 7.08).

Improvements

Improvements on this segment will probably be limited to traffic signalization and channelization. The City of San Francisco's draft transportation plan of Golden Gate Park calls for separation of north-south Route 1 traffic from east-west park traffic.

Segment F - Problem

This 1.3 mile two lane conventional highway segment from the junction of Rtes. 1/101 to just north of Tamalpais junction carries significant commuter traffic during morning and evening peak periods of travel. During those times and on some holidays and weekends level of service is generally E, and this should deteriorate to F by 1995. The accident rate is higher than the Statewide average.

Concept

Four lane conventional highway.

Improvements

Construct a four lane conventional highway on the existing alignment.

Segments G, H, I and J - Problem

Within these segments, Route 1 is a two lane conventional highway with substandard shoulder widths, and significant horizontal and vertical curviture. Traffic is largely recreational and current level of service is generally A to B.

Forecasts indicate that by 1995, during period of high recreational activity level of service will deteriorate to F.

The accident rate is generally higher than the Statewide average.

Concept

Two lane conventional highway.

Improvements

Widen shoulders, and construct slow moving vehicle lanes on significant vertical grades. A bypass of Bodega Bay would be consistent with Sonoma County planning.

9. Route Concept (2005) - Target LOS

Urban Segments

A, D, E, F LOS "D" Length = 52.4 miles

Rural Segments

B, C, G, H, I, J LOS "B" Length =149.0 miles

Lane Requirements (2005)

Segment	Existing (1982)	Required (2005)	Additional Required	Length (miles)
A	4/2	8/4	4/2	20.5
B	2	2	0	17.0
C	2	2	0	26.4
D	2/6	2/6	0	22.1
E	6/4	6/4	0	7.1
F	2	4	2	3.4
G	2	2	0	8.9
H	2	2	0	14.3
I	2	2	0	24.0
J	2	2	0	58.6

10. OTHER ALTERNATIVES

When considering major improvements to Route 1 it is necessary to take into account its unique characteristics.

Although it traverses several cities - Santa Cruz, Half Moon Bay, Pacifica, San Francisco, and unincorporated areas of Southern Marin County - which are densely developed and generate commuter oriented traffic, it also runs along many miles of pristine coastline. Much of the coastline is geologically unstable an subject to slide activity which can cause closure of sections of the highway. Route 1 is also within the jurisdiction of the California Coastal Commission. The statute which created the Coastal Commission decreed that Route 1 in the rural area of the coastal zone shall remain a scenic two lane road.

Therefore, even when traffic forecasts indicate needed improvements to facilitate desired levels of service, political support may be difficult to attain. Local residents may resist any increase in capacity of the route because of its potential to faster growth and diminish the pristine character of the area along the route.

Following is a discussion of other modal opportunities which could relieve congestion along sections of Route 1:

Santa Cruz County

The Santa Cruz Metropolitan Transit District provides bus service throughout Santa Cruz County. Improved service, with emphasis on the Mission Street corridor, could relieve congestion in this densely populated segment of Route 1.

A park and ride lot in segment A, served by Santa Cruz Transit, could encourage commuters to ride transit or carpool to work. Experience has shown that strategically located park and ride lots can have a significant impact on highway traffic.

The Southern Pacific Transportation Co. has a single track rail facility west of Route 1 which extends from Davenport, just north of Santa Cruz, to Watsonville. It is currently used for limited freight operations. Years ago it was used for rail passengers as well as freight. There was a weekend excursion train between San Francisco and Santa Cruz known as the Suntan Special.

Santa Cruz recently conducted a feasibility study for daily rail passenger service between Santa Cruz and Watsonville. The service is feasible, but it was difficult to obtain public support.

On summer weekends there is considerable parking of vehicles along the shoulders of Route 1 in Segment B. This, coupled with the large number of surfers and beach users crossing the highway effectively reduces capacity and causes congestion. Off highway parking on the beach side of the highway could mitigate this undesirable situation.

San Mateo County

The San Mateo County Transit District (SAM TRANS) provides bus service from Half Moon Bay and Pacifica to the more populous eastern part of San Mateo County, with connections to San Francisco. Improvements to this service could reduce congestion along this stretch of Route 1.

Recreational use of the beaches in Segment C is similar to that in Segment B. Surfers and bathers park along the shoulders on both sides of the road, reducing practical capacity and causing congestion. Off highway parking on the beach side of the highway could mitigate this problem.

Although the Peninsula Train between San Jose and San Francisco primarily serves the populous eastern half of the county, it can be reached from coastal communities by car or some SamTrans, Routes out of Half Moon Bay and Pacifica.

The park and ride lot in the Linda Mar District of Pacifica has effectively increased transit and carpool usage since it was opened several years ago. This facility, which is directly served by SamTrans, has more than 200 parking spaces and is filled to capacity daily.

City and County of San Francisco

The San Francisco Municipal Railway (MUNI) provides a high level of bus service along Route 1 in San Francisco between Eucalyptus Drive and Junipero Serra Blvd. MUNI Metro light rail service is also available along Route 1 between Brotherhood Way and Saint Francis Circle. Only one bus route (#28), however, runs along 19th Avenue.

The pronounced congestion along Route 1 is on 19th Avenue. This 6 lane divided arterial street which runs from the south City Limits to Golden Gate Park is a primary route to the Golden Gate Bridge. Users include commuters, San Francisco State University students, shoppers bound for Stonestown, and those bound for Golden Gate Park and Marin County. The most practical ways to relieve congestion on this route would be more frequent transit service during peak periods of use, incentives for ridesharing, and signal modifications and channelization along 19th Avenue.

The balance of Route 1 in San Francisco traverses environmentally sensitive areas - Golden Gate Park, Park Presidio Drive, and the Presidio.

Marin County

After a break in route between Doyle Drive in San Francisco and the junction with Route 101, with route continuity provided by the Golden Gate Bridge and 101, Route 1 proceeds to the ridge above Tamalpais Valley. This section of the route carries heavy commuter traffic bound for San Francisco.

The Golden Gate Bridge, Highway and Transportation District (GGBH&T) provides bus service from locations in Sonoma and Marin Conties to San Francisco. Improved service from the junction of Route 1 and 101 could reduce congestion along this stretch of Route 1 in southern Marin County.

The park and ride lot at the junction of Route 1/101 has effectively increased transit usage and carpooling since it opened in 1977. This facility, which is served directly by Golden Gate Transit, has been expanded to over 200 spaces since its opening. It is filled to capacity daily.

Although there are several park and ride lots located on State R/W, along Rte. 101 additional park and ride capacity would appear necessary in this corridor.

Potential rail service is being considered in the Northwest Pacific R/W which is adjacent to Route 101. If this comes to fruition it could offer an opportunity to relieve congestion in this corridor.

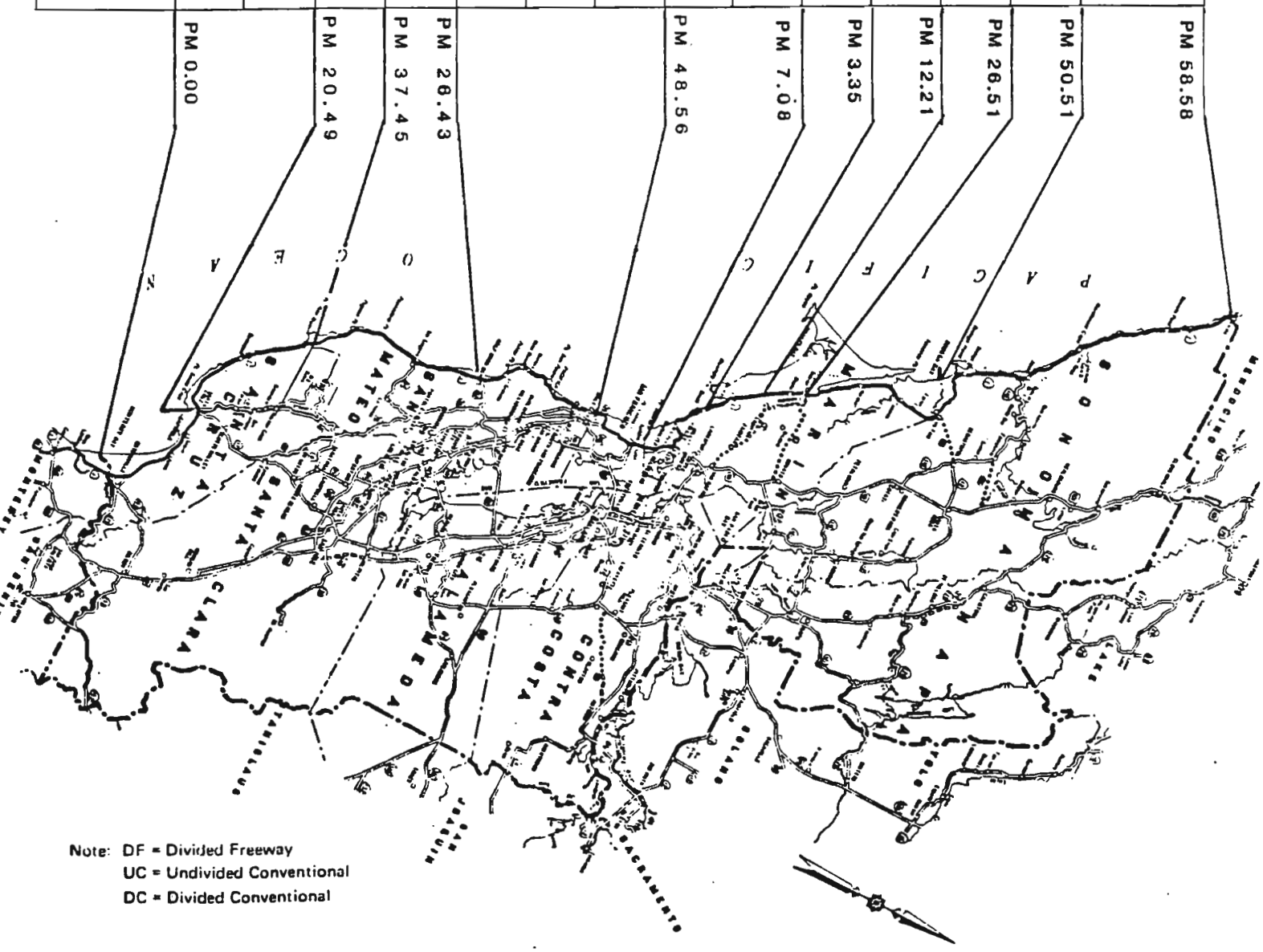
From the Tamalpais Valley ridge, Route 1 proceeds southerly, then westerly to Stinson Beach and up the coast to the Sonoma County Boundary. Practical improvements will generally be limited to shoulder widening, particularly on curves, and passing lanes for slower moving vehicles on grades. In addition, at Point Reyes Station, where Route 1 now runs directly through town, a "bypass route" might be constructed adjacent, and along the easterly side of the community.

Sonoma County

Because of the recreational orientation of the traffic and the rural character of the area, improvements to Route 1 in Sonoma County will probably be limited to shoulder widening, especially on curves; passing lanes for slower moving vehicles on grades; channelization at connections with major traffic generators to enhance safety; improvements at intersections with major beach access points (left turn lanes, etc.); provisions of parking facilities in area where people are parking along the narrow State highway; and the prohibitions of all but emergency parking along Route 1.

The Sonoma County Coastal Plan proposes that Route 1 bypass Bodega Bay.

COUNTY	SANTA CRUZ			SAN MATEO				SAN FRANCISCO		MARIN				SONOMA
SEGMENT	A		B	C	D			E		F	G	H	I	J
PRESENT USE	Commuter		Rec	Rec	Commuter			Commuter		Com	Rec	Com	Rec	Recreational
TERRAIN	Flat		Flat	Rolling	Rolling			Flat		Rolling	Rolling	Rolling	Rolling	Rolling
Number of Lanes	4 DF-4 DC	2 UC	2 UC	2 UC	2 UC	4 DF	6 DF	6 DC	4 DF	2 UC	2 UC	2 UC	2 UC	2 UC
Traveled Way Width (Min/Max)	46 - 76	29 - 56	23 - 52	22 - 50	23 - 56	42 - 74	77 - 100	60 - 96	40 - 48	20 - 32	26 - 18	30 - 18	30 - 18	34 - 18
Shoulders (Min/Max)	8 - 30	0 - 16	0 - 16	0 - 16	0 - 24	0 - 26	0 - 36	0 - 20	0 - 20	4 - 16	4 - 4	16 - 0	16 - 0	16 - 0
Median (Min/Max)	6 - 99	0	0	0 - 4	0 - 12	0 - 46	22 - 99	8 - 14	4 - 8	0	0	0	0	0
A.M. PEAK (100) 1982 (Max) AH	47	24	0.8	1.2	9 - 2	30	32 - 18	21	24	16	5	5	2	2
A.M. PEAK (100) 1982 (Max) BK	39	20	0.6	1.2	5.5	15		20	29	6	7	7	7	6
A.M. PEAK (100) 1995 (Max) AH	51	30	9	14	18	44	33	49	29	16	7	10	7	8
A.M. PEAK (100) 1995 (Max) BK	47	24	7	14	20	15	72	46	35	17	7	11	8	9
A.M. PEAK (100) 2005 (Max) AH	65	35	9	15	20	60	29	49	31	17	7	11	8	8
A.M. PEAK (100) 2005 (Max) BK	35	26	8	15	22	48	26	49	38	19	19	12	9	13
AADT (1000) 1982 Max/Min	71 - 18	39 - 9.2	9.2 - 4.6	8 - 5	19 - 8	37 - 20	43 - 39	69 - 44	53 - 52	27.5 - 5	1.9 - 1.3	2.5 - 2.0	5.7 - 1.0	1.0 - 1.6
AADT (1000) 1995 Max/Min	87 - 21	48 - 8	7 - 6	11 - 5	29 - 14	53 - 30	44 - 42	79 - 51	66 - 61	27 - 7	4 - 4	5 - 4	6.0 - 2.0	6 - 1
AADT (1000) 2005 Max/Min	104 - 22	59 - 13	8 - 7	14 - 6	30 - 17	60 - 32	45 - 42	86 - 55	71 - 66	30 - 8	12 - 8	6 - 4	6.0 - 2.0	6 - 2
V/C 1982 Max/Min	0.9 - 0.2	0.8 - 0.3	0.4 - 0.2	0.4 - 0.2	0.8 - 0.3	0.9 - 0.3	0.8 - 0.4	1.0 - 0.6	0.9 - 0.8	1.0 - 0.7	0.3 - 0.7	0.3 - 0.7	0.4 - 0.1	0.4 - 0.2
V/C 1995 Max/Min	1.9 - 0.5	3.0 - 0.7	1.1 - 0.8	1.3 - 0.7	2.7 - 0.4	1.6 - 6.3	0.8 - 0.4	1.9 - 1.5	1.8 - 1.6	1.7 - 1.3	1.4 - 1.4	1.4 - 1.0	1.3 - 0.4	1.1 - 0.5
V/C 2005 Max/Min	2.2 - 0.5	3.5 - 0.8	2.3 - 0.8	2.3 - 0.8	2.4 - 0.4	1.7 - 0.3	0.8 - 0.4	2.0 - 1.5	2.0 - 1.7	1.8 - 1.4	1.5 - 1.5	2.3 - 1.1	1.4 - 0.4	1.5 - 0.5
LOS 1982 Max/Min	A - D	A - D	A - B	A - B	B - D	B - D	B - C	C - F	D	D - E	C - D	C - D	A - B	A - B
LOS 1995 Max/Min	B - F	C - F	D - F	D - F	B - F	C - F	A - D	F	F	F - F	F - F	E - F	B - E	C - F
LOS 2005 Max/Min	B - F	C - F	D - F	D - F	B - F	A - B	A - D	F	F	F - F	F - F	F - F	B - C	C - F
ACCIDENT RATE Actual	7	16	2	1	5	20	20	22	10	15		2		
ACCIDENT RATE Max. Level	20	8	2	2	2	20	20	28	20	8		2		



Note: DF = Divided Freeway
UC = Undivided Conventional
DC = Divided Conventional

EXHIBIT A