ROUTE CONCEPT REPORT

ROUTE 92

SEPTEMBER 1986

TRANSPORTATION PLANNING
DEPARTMENT OF TRANSPORTATION

DISTRICT 4

SUMMARY

FINAL

SEP 3 0 1986

ROUTE CONCEPT REPORT

ROUTE 92

SM 00.000 - ALA 10.419
Route 1 - Route 580

This report defines the development concept of Route 92 in District 4, over a twenty year planning period (1985-2005).

ROUTE CONCEPT:

Segment:		LOS:*	Concept:
A:	SM 0.000 - SM R7.276 Route 1 - Route 280		To be determined by Current Study
B:	SM R7.276 - SM 12.141 Route 280 - Route 101	D-40	6-Lane Freeway
C:	SM 12.141 - SM R18.801 Route 101 - ALA/SM Co. Line	D-40	6-Lane Freeway
D:	ALA R0.000 - ALA 6.392 ALA/SM Co. Line - Route 880	D-40	6-8-Lane Freeway
E:	ALA 6.392 - ALA 8.219 Route 880 - Routes 185/238	F-15	6-Lane Conventional
F:	ALA 8.219 - ALA 10.419 Routes 185/238 - Route 580		To Remain Unconstructed

* In the Route Concept Report, the level of service is followed by the minimum operating speed.

CONCEPT RATIONALE:

In San Mateo County, Route 92 is a major connector to the Greater Bay Area for coastal communities along the Route 1 corridor, such as Half Moon Bay, Princeton, El Granada and Montara. This portion of Route 92 also serves many weekend visitors who travel from the Bay Area to the various beaches along the coast. Further inland, it is a major connector for commuters between Route 280, Route 101 and, across the bay, Route 880, and Route 238. The route serves as a major connector between the East-Bay and the Peninsula via the San Mateo-Hayward Bridge.

AREAS OF CONCERN:

Weekend travelers going to coastal beaches create long queues. Also, during heavy winter rains, any slides along Route 92 severely impair coastal access. Foster City's future office and industrial development will significantly increase existing pressure on the bridge approach. Development along the 101 corridor will increase traffic demand for the approaches to the San Mateo-Hayward Bridge.

SUMMARY

ROUTE CONCEPT REPORT

ROUTE 92

SM 00.000 - ALA 10.419

The following are locations along Route 92 which presently have operating deficiencies:

P.M. SM 0.00 - SM 7.05 Route 1 - North Junction Route 35	Steep grades with an insufficient number of passing lanes. Subject to closures in winter months due to landslides.
P.M. ALA 6.39 - ALA 8.21 Route 880 - Routes 238/185	Peak hour congestion. Jackson Street is used as an access route to the San Mateo-Hayward Bridge from the Route 580 corridor.

IMPROVEMENTS

The following are the improvements necessary to achieve the proposed concept for Route 92:

Segment A:
The ultimate improvement to Segment A is to be determined by current study.

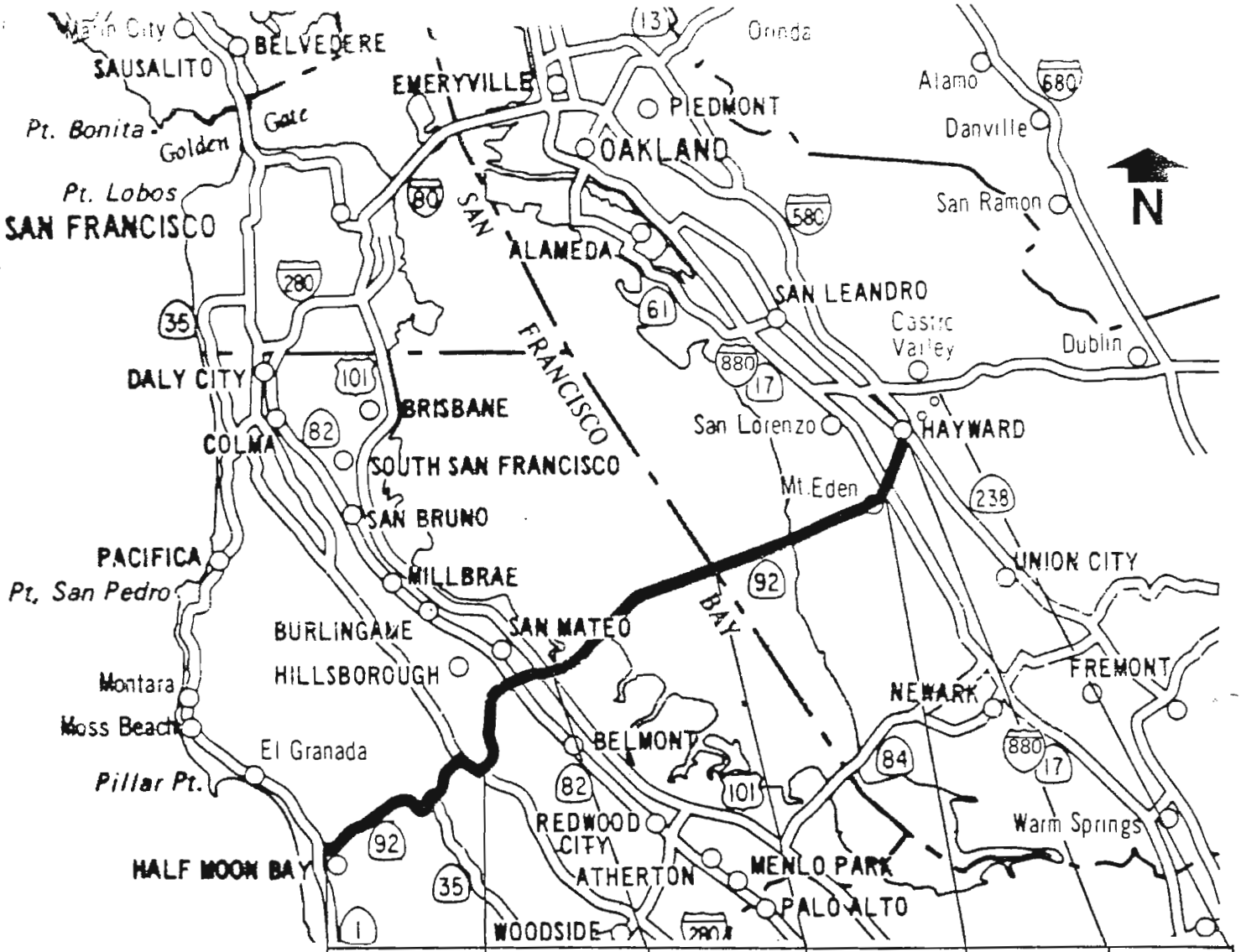
Segment B:
The widening of the four-lane freeway to a six-lane freeway along the entire segment, between Route 280 (Post Mile SM R7.27) and Route 101 (Post Mile SM 12.14).

Segment C:
The widening of the four-lane freeway to a six-lane freeway between Route 101 (Post Mile SM 12.14) and the San Mateo-Hayward Bridge (Post Mile SM R14.25).

Segment D:
The widening of the eastern causeway approach to the San Mateo-Hayward Bridge from a four-lane freeway to a six-lane freeway (Post Mile SM R16.58 to Post Mile ALA R2.41).
The widening of the four-lane freeway to a six-lane freeway between the eastern causeway approach to the San Mateo-Hayward Bridge (Post Mile ALA R2.413) and Clawiter Road (Post Mile ALA R4.45).
The widening of the four-lane freeway to an eight-lane freeway between Clawiter Road (Post Mile ALA R4.45) and Route 880 (Post Mile ALA 6.39).
The reconstruction of the Routes 92/880 Interchange (Post Mile ALA 6.39).

Segment E:
The Widening of the four-lane divided conventional highway to a six-lane divided conventional highway between Post Mile ALA 8.05 and the Routes 238/185/92 Junction (Post Mile ALA 8.219).

Segment F:
No improvements are proposed for Segment F of Route 92. The entire segment is to remain unconstructed between the Routes 92/185/238 Junction (Post Mile ALA 8.219) and Route 580 (Post Mile ALA 10.419.



A	B	C	D	E	F
SM 0.00	SM R7.276	SM 12.141 / SM R18.801	ALA R0.00	ALA 6.392	ALA 8.219 / ALA 10.419

LOCATION MAP
ROUTE 92

ROUTE CONCEPT REPORT

ROUTE 92

SM 0.00 to ALA 10.41

Prepared under the direction of:

9/26/86

MERLE J. JOHNSON Date
Acting Chief,
Transportation Planning

Recommended Approval:

30 Sept 86

GEORGE E. GRAY Date
Deputy District Director
Planning, Programming and
Public Transportation

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

Approved:

9/30/86

BURCH C. BACHTOLD Date
District Director
District 4

Approved:

D. L. WIEMAN, Chief Date
Division of Transportation
Planning

Approved:

ALLAN HENDRIX, Chief Date
Division of Highways -
Program Management

Approved:

VINCE PAUL, Chief Date
Division of Project
Development

STATEMENT OF PLANNING INTENT

The Route Concept Report (RCR) is a planning document which expresses The Department's judgment on what the characteristics of the state highway should be to respond to the projected travel demand over the 20-year planning period. The RCR contains the Department's goal for the development of each route in terms of level of service and broadly identifies the nature and extent of improvements needed to reach those goals. The RCR then provides the basis for the preparation of Route Development Plans (RDP) and the system analysis which indicates the level of service provided on the system at a given level of funding.

Route concept reports are prepared in the districts and represent the combined expertise of district staff. Facility dimensions (e.g., roadway widths or number of lanes on a multi-laned facility) discussed in the RCR represent an initial planning approach to scoping candidate improvements and determining estimated costs.

All information in the RCR is subject to change as conditions change and new information is obtained. Consequently, the nature and size of identified improvements may change as they move through the project development stages, with final determinations made at the time of project planning and design. If the nature and size of improvements change from that included in this report during later project development stages, this will be cause to review the RCR for this route.

ROUTE CONCEPT REPORT

ROUTE 92

SM 00.000 - ALA 10.419
Route 1 - Route 580

I. ROUTE DESCRIPTION

Route 92 is 29.2 miles long and traverses two counties: Alameda and San Mateo. The Route begins at Route 1 in Half Moon Bay and runs easterly through the Santa Cruz Mountain Range and the San Francisco State Fish and Game Refuge to Route 280. It then proceeds to Route 101. From Route 101 it continues across the San Mateo-Hayward Bridge into Alameda County. Route 92 follows Jackson Street from Route 880 to the junction of Routes 238 and 185. An unconstructed section with no adopted alignment continues to Route 580.

The land use along Route 92 near Half Moon Bay is primarily residential and commercial, with nursery establishments comprising the majority of commercial land use. The land use between Half Moon Bay and Route 280 is open space. Future development along this first segment of Route 92 is unlikely because of the mountainous terrain, and proximity to the San Francisco State Fish and Game Refuge and other environmentally sensitive areas. It is expected that the land use along this section of Route 92 will remain open space. Development along the Route 280 and Route 1 corridors will have the greatest impact on this segment of Route 92, with Route 92 serving primarily as an access route to Route 1 for tourists, commuters, and commercial users. As growth continues along Route 1, Route 92 will continue to experience increased traffic demand. Routes 1 and 84 will not be utilized as much a Route 92 as access routes to the coast. However, should the Route 1 bypass of Devils Slide be realized, considerable relief of the traffic congestion along Route 92 can be expected.

The majority of development along Route 92 will occur at both ends of the San Mateo-Hayward Bridge. Foster City in San Mateo County is currently being developed, and major industrial growth is planned for the area just east of the bridge in the City of Hayward. These two development projects, and the industrial growth along the Routes 101 and 880 corridors, will have the greatest impact on traffic demand for Route 92.

Route 92 is a major east-west route in the Bay Area, connecting Routes 280, 101, 880 and 580. East of Route 880, in the City of Hayward, Route 92 is a conventional highway, known locally as Jackson Street. This roadway is characterized by many intersecting cross streets, driveways leading to commercial establishments, and on-street parking during non-peak hours. This segment of the route serves as an access to Route 880 from the Route 580 and Route 238 corridors.

The unconstructed segment of Route 92 would have provided improved access to the San Mateo-Hayward Bridge from the Route 580 corridor. There are plans to construct Route 238 along a new alignment in the vicinity of this portion of Route 92.

The section of Route 92 from Route 1 to the eastern urban limit of Half Moon Bay is classified as Urban Principal Arterial. The section from Half Moon Bay to Route 280 is a Rural Minor Arterial. The section from Route 280 to Ralston Avenue-Polhemus Road is a Rural Principal Arterial. The section from Ralston Road-Polhemus Avenue in San Mateo to Route 238 in Hayward is classified as Urban Principal Arterial.

The section of route 92 between Route 1 (Post Mile SM 0.00) and Route 880 (Post Mile ALA 6.39) is in the Federal-Aid Primary System. The section between Route 880 and the Routes 92/185/238 Junction (Post Mile ALA 8.21) is in the Federal-Aid Urban System.

The section of Route 92 between Route 280 in San Mateo County and Route 880 in Alameda County is a designated Surface Transportation Assistance Act (STAA) Route for oversized trucks. This designation includes the San Mateo-Hayward Bridge. The route is not a SHELL Route (Subsystem of Highways for Extra Legal Loads).

The entire constructed route, between Route 1 in Half Moon Bay and Route 238 in Hayward, is in the State Freeway and Expressway System. The route is designated a State Scenic Highway between Route 1 and Route 280.

The Legislative description is as follows:

Route 92 is from:
(A) Route 1 near Half Moon Bay to Route 280.
(B) Route 280 to Route 580 near Castro Valley and Hayward.

II. PURPOSE OF ROUTE

Route 92 serves several purposes. The route is a recreational and commuter route between Route 1 and Route 280, serving the coastal communities, beaches and parks along Route 1. This segment also serves as a truck route to coastal communities along Route 1. The Route serves as a connector between Routes 280 and 101 in Segment B, and in Segments C and D the route serves as a connector between the San Mateo Peninsula and the East Bay for all types of traffic: commercial, recreational and commuter. In the City of Hayward, Route 92 serves as a local access route to Route 880 and the bridge from the Routes 238 and 185 corridors. The Route also serves as a connector between the Route 580 corridor and Route 880 industrial corridor and is a popular truck route for trucks traveling from the Route 580 and Route 880 corridors to the San Mateo-Hayward Bridge.

III. ROUTE SEGMENTS

A. SEGMENT A

(04-SM-92, P.M. SM 0.000 - SM 7.276)
(Route 1 - Route 280)

Segment A starts in Half Moon Bay at the junction of Route 1. It then proceeds easterly through the mountainous terrain of the San Francisco Fish & Game Refuge. The segment terminates at the Route 280/92 Interchange. For several coastal communities along Route 1, this segment of Route 92 serves as the primary connector to the Greater Bay Area. It is also a popular route for tourists traveling to various coastal beaches. The land use along this segment is open space, with the route passing through an environmentally sensitive area. The steep hills are susceptible to landslides during the winter months, and on several occasions the highway has been closed due to slides.

Segment A passes through the City of Half Moon Bay, The San Francisco Fish and Game Refuge, and an unincorporated area of San Mateo County in the northern part of the Santa Cruz Mountains.

1. Existing Facilities

a) Highway Facility

Segment A is a two lane conventional highway with passing lanes at some locations. The total traveled way width ranges from 22 to 34 feet and shoulder widths vary from 2 to 8 feet. There is no median. This portion of Route 92 passes through the Santa Cruz Mountain Range. The terrain is rolling to mountainous. The grade varies from 0% to 6% and is greater than 6% in some locations.

b) Current (1985) STIP Projects

The following are the projects programed in the 1985 State Transportation Improvement Program (STIP) for Segment A of Route 92:

FY 86/87, 87/88 P.M. 0.0 - T.52	Route 1 to Route 35 (Portions) Various Locations Slow Vehicle Lanes/ Safety Improvements

FY 89/90 P.M. 5.2 - 6.9	Route 35 to .03 Mile West of Route 280 Slow Vehicle Lanes/ Safety Improvements
Budget Not Awarded P.M. 5.2 - T7.1	South Junction of Route 35 to .03 Mile West of the Route 280/92 Separation AC Surfacing

c) Public Transit

SamTrans operates bus service along this segment, serving the coastal communities of Montara, Moss Beach and Half Moon Bay, the City of San Mateo and the Hillsdale Caltrain station. Service is hourly during commute hours on weekdays and Saturdays

d) Bicycles

This segment is a popular route for recreational cyclists going to or coming from Route 1 along the coast. The entire segment is a suggested bicycle route.

e) Park and Ride

There are no park and ride facilities along this segment. However, commuters use a dirt area adjacent to the Routes 35/92 East Junction as a car pool parking area.

f) Rail Transit

Rail transportation is not available along this segment.

2. Current Operating Conditions

The 1982 Annual Average Daily Traffic (AADT) ranged from 13,000 at Route 1 to 17,000 at Route 35. The AM peak hour volume at Route 1 was 600 eastbound and 200 westbound. The AM peak hour volume at Route 35 was 1,600 eastbound and 300 westbound. The Volume to Capacity ratio (V/C) varied from .44 (Level of Service of B-50) at Route 1 to 1.0 (LOS of F-25) at Route 35. The AADT truck percentage varies from 4% to 9%.

3. Accident Rate (1/80 - 12/83)

During the four year period beginning January 1, 1980 and ending December 31, 1983, there were 582 accidents with 451 injuries and six fatalities along this segment. Fifty-five percent of the accidents occurred on Fridays, Saturdays and Sundays. The total accident rate was 3.58/MVM (accidents per Million Vehicle Miles), which was above the Statewide average total accident rate of 2.60/MVM for similar facilities. The fatality rate was .024/MVM (fatalities per Million Vehicle Miles), which was below the Statewide average fatality rate of .065/MVM for this type of facility.

4. Future Operating Conditions

The projected Annual Average Daily Traffic (AADT) for the year 1995 (2005) is expected to range from 21,000 (23,000) at Route 1 to 27,000 (33,000) at Route 35. The AM peak hour traffic volume at Route 1 will be 2,100 (2,400) eastbound and 1,400 (1,600) westbound. The AM peak hour traffic volume at Route 35 is expected to be 2,900 (3,500) eastbound and 1,600 (1,900) westbound.

The 1995 Demand to Capacity ratio (D/C) is projected to range from 1.40 (Level of Service of F-15 at Route 1 to 1.93 (LOS of F-10) at Route 35. The 2005 D/C is projected to range from 1.60 (LOS of F-10) at Route 1 to 2.33 (LOS of F-5) at Route 35.

The existing roadway will not be able to accommodate the projected demand.

5. Route Concept

The concept for Segment A of Route 92 will be determined by studies now in progress. A separate bicycle trail adjacent to the facility will ultimately be provided. Once completed, the bicycle trail would be maintained by a local agency, possibly the County of San Mateo.

6. Improvements (Post 1985 STIP)

The ultimate type of improvements to Segment A of Route 92 will be determined by studies now in progress.

7. Concept Concerns

There are several concerns which limit the improvements which may be permitted along Route 92. The coastal communities along Route 1 would prefer to discourage, or at least not encourage, development along the Route 1 corridor. A four-to-six-lane expressway is needed to achieve a Level of Service of "D" and meet the projected traffic demand along this segment. However, such a facility is viewed as an encouragement to unwanted growth and traffic congestion along the Route 1 corridor.

The State Department of Transportation has the responsibility of providing a safe, adequate and appropriate highway system for the citizens of California. In keeping with this responsibility as a transportation agency, Caltrans would prefer to construct an expressway facility. However, environmental concerns and local policy would indicate that a four-lane divided conventional highway may be the appropriate facility at this time. Although peak hour traffic congestion would not be solved, overall safety and traffic congestion during non peak hours would improve. It is expected that improvements in public transportation and the implementation of aggressive TSM measures will provide for the excess demand during peak hours. The steep grade along the segment prohibits rail transit, and it is not economically feasible to bore a tunnel for rail transit. It is assumed SamTrans will increase bus service to meet the excess demand, with possible express service to Caltrain.

The majority of the segment is in an environmentally sensitive region, which is currently preserved as open space. Any proposed highway facility would have as little impact as possible on the surrounding area. Since part of the route is within the San Francisco Fish and Game Refuge, Section 4f of the Department of Transportation Act may preclude any improvements to the section of the route passing through the refuge.

Presently, traffic traveling from eastbound Route 92 to northbound Route 280 and from southbound Route 280 to westbound Route 92 must utilize a portion of Route 35 on Skyline boulevard, and the Bunker Hill Drive/Route 280 Interchange. It is expected that increased traffic demand will necessitate an improved connection between the two routes. However, since the interchange is within the San Francisco Fish and Game Refuge, Section 4f of the Department of Transportation Act may preclude any improvements to the interchange. Further study of the Route 280/92 Interchange will be considered as traffic demand warrants.

If the Route 1 bypass of Devils Slide is not realized, it may be necessary to reevaluate this segment of Route 92. If Route 1 is not improved, it is expected that traffic demand for Route 92 will be greater than the projections indicate.

8. Local Concerns

The coastal communities along Route 1 have land use plans consistent with low growth along the Route 1 corridor and thus extensive improvements of the Route 92 facility may be inconsistent with the local plans.

It is questionable whether major improvements to the route would be consistent with the draft San Mateo County General Plan. Section 12.9 of the plan (Rural Road Improvements) states: "In rural areas, where improvements are needed due to safety or congestion, support improved traffic control measures such as signing, lane markings, and speed controls and the construction of operational and safety improvements, such as adequate passing lanes, elimination of sharp curves, lane widening or paved shoulders".

Since the segment serves as a primary route between urban areas, Segment A could be considered an urban highway, in which case the concept would be consistent with the draft San Mateo County General Plan. Section 12.10 of the plan (Urban Road Improvements) states: "In urban areas, where improvements are needed due to safety concerns or congestion, support the construction of interchange and intersection improvements, additional traffic lanes, turning lanes, redesign of parking, channelization, traffic control signals, or other improvements".

The proposed bicycle trail adjacent to the ultimate facility is consistent with Section 12.35 of the draft San Mateo County General Plan, which states: "Support the development of bicycle trails in rural and Coastal Areas".

B. SEGMENT B

(04-SM-92 P.M. SM R7.276 - SM 12.141)
(Route 280 - Route 101)

Segment B is a four-lane freeway which begins at Route 280 in the San Francisco State Fish and Game Refuge and continues easterly through the City of San Mateo to Route 101. The Route 82/92 Interchange is located within this segment. The freeway serves as a major link for commuters between Route 280 and Route 101. The land use along the entire segment is residential, with commercial land use located along the Route 82 corridor, and light industry and business parks located along the Route 101 corridor. This segment of the route is used predominantly for commercial and commute purposes.

Segment B of Route 92 passes through the San Francisco State Fish and Game Refuge, an unincorporated area of San Mateo County, and the City of San Mateo.

1. Existing Facilities

a) Highway Facility

This segment is a four-lane freeway with a total traveled way width of 48 feet. The shoulder width is 8 feet and the median width varies from 16 to 46 feet. The terrain between Route 280 and Route 82 is rolling with a grade varying from 0 to 6%. The terrain between Route 82 and Route 101 is flat with a grade from 0 to 3%.

b) Current (1985) STIP Projects

The following is the project programed in the 1985 STIP for Segment B of Route 92:

Budget Not Awarded T11.9 - T12.8	East of South Grant Street to East of Norfolk Street (Route 92/101 Interchange) Highway Planting

c) Public Transit

SamTrans operates the 43N and 90H bus lines along Route 92 between West Hillsdale Blvd and Alameda de Las Pulgas. The 43N bus line operates between the College of San Mateo and downtown San Mateo, serving the Hillsdale and San Mateo CalTrain stations. The 90H bus line operates between Montara and Half Moon Bay and the City of San Mateo, serving the Hillsdale CalTrain station.

d) Bicycles

Bicycles are prohibited access on this segment. Ralston Avenue is a suggested bicycle route, and an existing bicycle path parallels Route 92 between Route 280 and Ralston Avenue.

As indicated on the Bikeway Plan of San Mateo County, a bicycle path is proposed between Ralston Avenue and de Anza Boulevard. This path would approximately parallel Route 92.

e) Park and Ride

There is a state owned park and ride facility with 28 spaces located at the Ralston Avenue/Route 92 Interchange.

A park and ride lot with 175 spaces is planned for Fiscal Year 85/86 along Route 101 near the Route 101/92 Interchange.

f) Rail Transit

CalTrain serves the Route 101 and Route 82 corridors, with the Hayward Park CalTrain Station located one quarter mile to the north of Route 92, and the Hillsdale Caltrain Station located one mile to the south, near the Bay Meadows Race Track.

2. Current Operating Conditions

The 1982 AADT ranged from 39,000 at the Route 280 Interchange to 65,000 at the Route 101 Interchange. The AM peak hour traffic volume at Route 280 was 5,800 eastbound and 2,200 westbound. The AM peak hour volume at Route 101 was 2,500 eastbound and 2,000 westbound. The V/C ratio ranged from 1.00 (LOS of F-20) at Polhemus Road to .63 (LOS of C-50) at the Route 101 Interchange. Truck traffic is light, ranging from 1 to 3% of the total traffic.

3. Accident Rate (1/80 - 12/83)

During the four year period beginning January 1, 1980, and ending December 31, 1983, there were 412 accidents with 260 injuries and two fatalities along this segment. Seventy-four percent of the accidents occurred during weekdays. The total accident rate was 1.31/MVM, which was above the Statewide average total accident rate of 1.13/MVM for similar facilities. The fatality rate was 0.006/MVM, which was below the Statewide average fatality rate of 0.016/MVM for this type of facility.

4. Future Operating Conditions

The projected AADT for 1995 (2005) ranges from 65,000 (80,000) at the Route 280 Interchange to 95,000 (113,000) at the Route 101 Interchange. The AM peak hour traffic volume at Route 280 is projected to be 6,200 (7,500) eastbound and 3,300 (4,000) westbound. At the Route 101 Interchange the AM peak hour traffic volume is expected to be 4,700 (5,500) both eastbound and westbound.

The 1995 D/C is projected to be 1.03 (LOS of F-25) between Route 280 and Polhemus Road. For the remainder of the route, the D/C is projected to range from .78 (LOS of C-45) east of Polhemus Road to 1.18 (LOS of F-25) at Route 101. The 2005 D/C is projected to be 1.25 (LOS of F-20) between Route 280 and Polhemus Road. The 2005 D/C is projected to range from .95 (LOS of E-30) east of Polhemus Road to 1.38 (LOS of F-20) at Route 101.

5. Route Concept

The concept for Segment B of Route 92 is a six-lane freeway with auxiliary lanes at the Route 280 and Route 101 Interchanges. The conceptual LOS is D-40 for the entire segment.

The concept for this segment will meet the projected traffic demand for the year 2005.

6. Route Improvements (Post 1985 STIP)

The following are the improvements necessary to achieve the proposed concept for Segment B of Route 92:

The Widening of the four-lane freeway to a six-lane freeway between Route 280 (P.M. SM R7.27) and Route 101 (P.M. SM 12.14).
The Provision of additional auxiliary lanes in order to meet traffic demands and insure proper traffic distribution at the Routes 92/280 and Routes 92/101 Interchanges.

7. Concept Concerns

To meet the projected demand, two auxiliary lanes in each direction will be needed between the Route 280 Interchange (PM R7.3) and Ralston-Polhemus Road (PM R7.9), and one auxiliary lane in each direction will be needed between Route 82 (PM R11.2) and Route 101 (PM 12.1). These auxiliary lanes are not only needed to meet traffic demands, but also for the better distribution of through and merging traffic at the Routes 280/92, and Routes 101/92 Interchanges.

The freeway may be widened within the existing right-of-way for most of the segment between Route 280 and Route 82. It may be necessary to acquire additional right-of-way between Route 82 and Route 101.

8. Local Concerns

Section 12.11 (East-West Roads) of the San Mateo County General Plan states: "Work with CalTrans and the cities to provide improved major east-west routes in the County as traffic conditions warrant".

C. SEGMENT C

(04-SM-92, P.M. SM 12.141 - SM R18.801)
(Route 101 - ALA/SM County Line)

Segment C begins at the Route 92/101 Interchange in the City of San Mateo and continues easterly through Foster City and along the San Mateo-Hayward Bridge to the Alameda/San Mateo County line. This segment is a major connector between the San Mateo Peninsula and the East Bay. Light industry and business parks are located in Foster City, along with residential land use areas. According to the Association of Bay Area Governments, development in Foster City will increase total employment by 40% to 8,000. This increase will put an additional strain on the existing Route 92 approach to the San Mateo-Hayward bridge. Approximately 4.4 miles of Route 92 in this segment is on the Bridge

Segment C is within the Cities of San Mateo and Foster City.

1. Existing Facilities

a) Highway Facility

This segment is a four-to-six-lane freeway with a total traveled way width ranging from 48 to 76 feet. The portion of the segment not on the bridge has 8 to 10 foot shoulders and a median 46 feet in width. The San Mateo-Hayward Bridge begins at Post Mile R14.44. There are three lanes in each direction with no shoulder and an 8 foot median. The median is classified as a bridge barrier railing. There are two lanes in each direction on the eastern causeway approach to the bridge.

b) Current (1985) STIP Projects

The following are the projects programed in the 1985 STIP for Segment C of Route 92:

Budget Not Awarded P.M. T11.9 - T12.8	East of South Grant Street to East of Norfolk Street (Routes 92/101 Interchange) Highway Planting
FY 85/86 P.M. R13.2 - R13.3	Vintage Park Blvd (Foster City) Construct Overcrossing (Local Funding)

FY 85/86 P.M. R13.4 - R13.6	At Triton Drive On Foster City Blvd. On and Off Ramp Revision (Local Funding)
FY 86/87 P.M. R13.6 - R13.7	Foster City Blvd Interchange (Foster City) Widen Overcrossing (Local Funding)
FY 86/87 P.M. R13.9 - R14.4	In Foster City at East 3rd Avenue New Interchange (Local Funding)

c) Public Transit

SamTrans operates the 90E bus line hourly during commute hours, serving the Hayward Bart Station, Foster City, the San Francisco Airport and the City of San Mateo. This bus service is intended to better serve the growing number of East-Bay commuters working in Foster City and the Airport area.

d) Bicycle

Bicycles are not permitted on this segment, and are not allowed on the San Mateo-Hayward Bridge.

Bicyclists are permitted on the Dumbarton Bridge (Route 84) to the south of Route 92.

e) Park and Ride

There are no park and ride facilities along this segment.

f) Rail Transit

Rail transportation is not available along this segment of Route 92.

2. Current Operating Conditions

The 1982 AADT ranged from 63,000 at the Route 101 Interchange to 48,000 on the San Mateo-Hayward Bridge. The AM peak hour traffic volume ranged from 2,000 eastbound and 2,300 westbound at the Route 101 Interchange, to 600 eastbound and 3,000 westbound on the bridge.

The V/C ratio ranged from .85 (LOS of D-40) at the Route 101 Interchange, to .93 (LOS of E-30) at South Norfolk Street, to .50 (LOS of B-55) on the bridge. Truck traffic accounted for 6% of the total traffic and 4% of the traffic during the AM Peak Hour.

3. Accident Rate (1/80 - 12/83)

During the four year period beginning January 1, 1980 and ending December 31, 1983 there were 602 accidents with 500 injuries and seven fatalities along this segment. Forty-four percent of the accidents occurred on Fridays, Saturdays and Sundays. The total accident rate was 1.27/MVM, which was below the Statewide average total accident rate of 1.31/MVM for similar facilities. The fatality rate was .014/MVM, which was below the Statewide average fatality rate of .015/MVM for this type of facility.

4. Future Operating Conditions

The projected AADT for 1995 (2005) ranges from 92,000 (110,000) at the Route 101 Interchange to 52,000 (61,000) at the San Mateo-Hayward Bridge. The AM peak hour traffic volume at the Route 101 Interchange is projected to be 3,800 (4,400) eastbound and 5,700 (6,600) westbound. At the Bridge, the AM peak hour traffic volume is expected to be 1,900 (2,100) eastbound and 4,300 (5,000) westbound.

The 1995 D/C ratio is projected to range from 1.43 (LOS of F-20) at the Route 101 Interchange to .72 (LOS of C-50) on the San Mateo-Hayward Bridge. The 2005 D/C ratio is projected to range from 1.65 (LOS of F-15) at the Route 101 Interchange to .83 (LOS of D-40) on the Bridge.

5. Route Concept

The concept for Segment C of Route 92 is a six-lane freeway for the entire segment with additional auxiliary lanes at the Route 101/92 Interchange between Route 101 and Foster City Boulevard. The conceptual LOS is D-40 for the entire segment.

The concept for this segment will meet the projected traffic demand for the year 2005.

6. Route Improvements (Post 1985 STIP)

The following are the improvements necessary to achieve the proposed concept for Segment C of Route 92:

The Widening of the four-lane freeway to a six-lane freeway between Route 101 (P.M. SM 12.14) and the San Mateo-Hayward Bridge (P.M. SM R14.25).
The installation of one additional auxiliary lane in each direction in order to meet traffic demands and insure proper traffic distribution at the Route 101/92 Interchange between Route 101 (P.M. SM 12.14) and Foster City Boulevard (P.M. SM R13.60).
The Widening of the eastern causeway approach to the bridge from a four-lane freeway to a six-lane freeway (P.M. SM R16.58 to P.M. ALA R2.41).

7. Concept Concerns

Development in the surrounding areas will greatly affect the performance of this segment of Route 92. Future development in Foster City will cause an increase in traffic volume on the Route 92 approach to the San Mateo-Hayward Bridge. Traffic demands will increase on the bridge itself as more people commute from the East Bay to the San Francisco Airport area and the Route 101 corridor. In order to accommodate a six-lane freeway along the eastern approach to the bridge, it will be necessary to structurally widen the eastern approach causeway to the bridge.

In order to meet the projected traffic demands, one additional auxiliary lane in each direction is needed at the Route 101 Interchange between Route 101 and Foster City Blvd (P.M. SM R13.60). These additional auxiliary lanes are needed to meet traffic demands as well as improve the distribution of through and merging traffic near the Route 101 Interchange. A six-lane freeway is needed on the San Mateo-Hayward Bridge and Causeway.

D. SEGMENT D

(04-ALA-92, P.M. ALA R00.000 - ALA 6.392)
(SM/ALA County Line - Route 880)

Segment D originates on the San Mateo-Hayward Bridge at the San Mateo/Alameda County line and continues along the bridge to Route 880 in Hayward. This segment is an important connection for commuters between the East-Bay and the San Mateo Peninsula and one of the primary connectors between the Route 101 corridor and the Route 880 corridor. The land along this segment is currently undeveloped along the shoreline of the bay, industrial further inland and residential and commercial near Route 880. Due to the proposed development by the Shorelands Corporation of the area along the bay and south of Route 92, the City of Hayward has requested that a new interchange be constructed between the Toll Plaza and Clawiter Road, to provide for local access to Route 92 from the proposed industrial parks. However, this location is also ideal for a future Routes 61/92 Interchange. The planning of the Route 92/Hayward Industrial Corridor Interchange should take into consideration the possibility of a Routes 61/92 Interchange, which could be one in the same.

Segment D is entirely within the City of Hayward.

1. Existing Facilities

a) Highway Facility

The San Mateo-Hayward Bridge-causeway portion of this segment has two lanes in each direction with a total traveled way width of 48 feet, no shoulders and an 8 foot median with barrier. The remaining portion is a 4 lane freeway with a total traveled way width of 48 feet. The shoulder widths vary from 8 to 10 feet and the median width varies from 22 to 46 feet. The terrain is flat and the grade is flat (0-3%).

b) Current (1985) STIP Projects

There are no STIP projects programed in the 1985 STIP for Segment D of Route 92.

c) Public Transit

AC Transit operates the 86 bus line along the eastern portion of the segment during commute hours, operating between the Hayward BART Station and the industrial parks along Route 92. SamTrans operates the 90E bus line hourly during commute hours, serving the Hayward Bart Station, Foster City, the City of San Mateo and the San Francisco International Airport. This bus service is intended to improve service for the growing number of East-Bay commuters working near Foster City and the San Francisco International Airport.

d) Bicycles

Bicycles are not permitted on this segment and are not permitted on the San Mateo-Hayward Bridge. Bicycles are permitted on the Dumbarton Bridge (Route 84), to the south of Route 92.

e) Park and Ride

There are no park and ride facilities along this segment.

f) Rail Service

Rail service is not available along this segment. BART serves the Route 238 and Route 880 corridors, with the Hayward Station located 1.5 miles to the north of the Route 92/880 Interchange. The South Hayward BART Station is located two miles to the east of the Route 92/880 Interchange.

2. Current Operating Conditions

The 1982 AADT ranged from 48,000 on the eastern approach causeway to the San Mateo-Hayward Bridge, to 74,000 at Route 880. The AM peak hour traffic volume was 600 eastbound and 3,000 westbound on the causeway, and 1,700 eastbound and 3,700 westbound at Route 880. The V/C ratio ranged from .75 (LOS of C-50) on the causeway to .62 (LOS of C-50) at Route 880. Truck traffic was 6% (4% for the AM peak hour).

This traffic pattern reflects the commute from the East-Bay to the business parks and industrial areas along the Route 101 corridor.

3. Accident Rate (1/80 - 12/83)

During the four year period beginning January 1, 1980 and ending December 31, 1983, there were 400 accidents with 303 injuries and three fatalities along this segment. The total accident rate was 0.86/MVM, which was below the Statewide average total accident rate of 1.10/MVM for similar facilities. The fatality rate was .006/MVM, which was below the Statewide average fatality rate of .014/MVM for this type of facility.

4. Future Operating Conditions

The projected AADT for 1995 (2005) ranges from 52,000 (61,000) on the eastern approach causeway to the bridge, to 85,000 (99,000) at the Route 880 Interchange. The AM peak hour traffic volume on the causeway is expected to be 1,900 (2,100) eastbound and 4,300 (5,000) westbound. The AM peak hour traffic volume at Route 880 is expected to be 2,400 (2,900) eastbound and 3,700 (4,300) westbound.

The 1995 D/C ratio is projected to range from 1.08 (LOS of F-25) on the eastern approach causeway to the bride to .85 (LOS of D-40) at Route 880. The 2005 D/C is projected to range from 1.25 (LOS of F-20) on the causeway to 1.00 (LOS of E-30) at Route 880.

5. Route Concept

The concept for segment D of Route 92 is a six-lane freeway between the Alameda/San Mateo County line and Clawiter Road and an eight-lane freeway between Clawiter Road and Route 880. The conceptual LOS is D-40.

The concept for this segment will meet the projected traffic demand for the year 2005.

6. Route Improvements (Post 1985 STIP)

The following are the improvements necessary to achieve the proposed concept for Segment D of Route 92:

The Widening of the eastern approach causeway to the San Mateo-Hayward Bridge from the present four-lane freeway to a six-lane freeway (P.M. SM R16.58 to P.M. ALA R2.41).
The widening of the four-lane freeway to a six-lane freeway between the eastern approach causeway to the bridge (P.M. ALA R2.41) and Clawiter Road (P.M. ALA R4.45).
The Widening of the four-lane freeway to an eight-lane freeway between Clawiter Road (P.M. ALA R4.45) and Route 880 (P.M. ALA 6.39).
The reconstruction of the Route 880/92 Interchange (P.M. ALA 6.39).

7. Concept Concerns

The primary concern along this segment is the development of the bay shore lands in Hayward into industrial and business parks, and the growth along the Route 101 corridor, which will attract an increasing number of commuters from the East-Bay. The concept requires the structural widening of the eastern causeway approach to the bridge. Since this segment of Route 92 is a major connector between the Route 101 and Route 880 corridors, it is crucial to have adequate traffic flow so that access between the East-Bay and the San Mateo Peninsula is not impaired. It will become necessary to reconstruct the Route 880/92 Interchange in order to handle the projected traffic volumes and improve the distribution traffic.

E. SEGMENT E

(04-ALA-92, P.M. ALA 6.392 - ALA 8.219)
(Route 880 - Junction Routes 238/185/92)

Segment E is approximately 1.6 miles long and begins at Route 880 in the City of Hayward and continues northeast to the Routes 238/185/92 Junction. This segment of Route 92 is a four-to-six-lane divided conventional highway known locally as Jackson Street and serves as a commercial roadway, connecting Route 238 and Route 185 with Route 880 and the San Mateo-Hayward Bridge. Parking is allowed in the outside lane in front of some businesses during non-peak hours; this reduces the number of lanes from three to two in any one direction.

Segment E is entirely within the City of Hayward.

1. Existing Facilities

a) Highway Facility

Segment E is a six lane divided conventional highway from the 880 Interchange to west of the Routes 238/185/92 Junction, and a four-lane divided conventional highway between post mile ALA 8.05 and the Routes 238/185/92 Junction. Parking is allowed in the outside lanes in some locations during non-peak hours, thus reducing the number of lanes from three to two in any one direction. During peak hours there are six lanes in both directions between Route 880 and Post Mile ALA 8.05. The total traveled way width varies from 50 to 72 feet, the median width varies from 22 to 12 feet, and the shoulder widths vary from 4 to 12 feet. The terrain is flat with a grade between 0% and 3%.

b) Current (1985) STIP Projects

There are no STIP projects programed in the 1985 STIP for Segment E of Route 92.

c) Public Transit

AC Transit operates the 86 and 92 bus lines on Route 92 (Jackson Street). The 86 bus line runs during commute hours, operating between the Hayward BART Station and the businesses along Route 92 to the west. The 92 bus line serves the residential areas west of Route 880, Chabot College, the Hayward BART station and the California State University at Hayward. SamTrans operates the 90E bus line hourly during commute hours. This line serves the Hayward Bart Station, Foster City, the City of San Mateo, and the San Francisco International Airport.

d) Bicycle

Bicycles are allowed on this segment, however, it is not a suggested bicycle route, and there are no specifically designated bicycle lanes. Local street maps should be consulted at the discretion of the cyclist.

e) Park and Ride

There are no Park and Ride facilities along this segment.

f) Rail Transit

Rail Transportation is not available along this segment. The Hayward BART Station is a quarter mile from the Route 185/238/92 Junction. However, the BART system serves the Route 238 and Route 880 corridors and not the Route 92 corridor.

2. Current Operating Conditions

The 1982 AADT ranged from 38,000 at Santa Clara Street to 35,000 at the Routes 238/185/92 Junction. The AM peak hour traffic volumes were 1,100 eastbound and 1,600 westbound at Santa Clara Street, and 1,300 eastbound and 900 westbound at the Routes 238/185/92 Junction. The V/C ratio ranged from 1.00 (LOS of E-20) at Santa Clara Street to .54 (LOS of B-45) at the Route 238/185/92 Junction. Truck traffic accounted for 3% of the total traffic.

3. Accident Rate (1/80 - 12/83)

During the four year period beginning January 1, 1980 and ending December 12, 1983, there were 624 accidents with 283 injuries and two fatalities along this segment. The total accident rate was 5.17/MVM, which was above the Statewide average total accident rate of 2.75/MVM for similar facilities. The fatality rate was .016/MVM, which was below the Statewide average fatality rate of .023/MVM for this type of facility.

4. Future Operating Conditions

The projected AADT for 1995 (2005) ranges from 42,000 (49,000) at Santa Clara Street to 38,000 (45,000) at Route 238. The AM Peak Hour traffic volumes at Santa Clara Street are projected to be 1,900 (2,200) eastbound and 2,300 (2,700) westbound. At the Route 238 Junction, the AM Peak Hour traffic volumes are projected to be 1,900 (2,200) both eastbound and westbound.

The 1995 D/C ratio is projected to range from .96 (LOS of E-20) at Santa Clara Street to .79 (LOS of C-40) at Route 238. The 2005 D/C ratio is projected to range from 1.13 (LOS of F-15) at Santa Clara Street to .92 (LOS of E-20) at the Routes 238/185/92 Junction.

Traffic projections indicate an eight lane divided conventional highway or four to six lane expressway will be required for this segment between the Route 880/92 Interchange and the Routes 238/185/92 Junction.

5. Route Concept

The concept for Segment E of Route 92 is a six-lane divided conventional highway between Route 880 and the Routes 238/185/92 Junction. The conceptual LOS is F-15.

Improvements in public transportation and the implementation of aggressive TSM measures will be needed to provide for the excess demand.

The concept for this segment will not meet the projected traffic demand for the year 2005.

6. Route Improvements (Post 1985 STIP)

The following are the improvements necessary to achieve the proposed concept for Segment E of Route 92:

The Widening of the four-lane divided conventional highway to a six-lane divided conventional highway between Post Mile ALA 8.05 and the Routes 238/185/92 Junction (P.M. ALA 8.219).

The elimination of on-street parking in the outside lane during all hours.

7. Concept Concerns

The City of Hayward is opposed to the construction of a new facility along this segment. The existing facility cannot be widened beyond the present six lanes without the displacement of several businesses and homes. Thus, the concept will not meet the target LOS of D-35 for urban conventional highways.

Construction of the westbound Route 238 to southbound Route 880 connector should divert traffic away from this segment of Route 92. Should the Route 238/880 connector not divert a sufficient number of vehicles from Route 92, and should a Route 238 freeway/expressway cause an increase in demand for Route 92, then the concept for this segment will need to be reassessed.

F. Segment: F

(04-ALA-92, P.M. ALA 8.219 - 10.419)
(Junction Routes 238/185 - Route 580)

Segment F begins at the Route 238/185/92 Junction in the City of Hayward and continues northeasterly to Route 580 near Castro Valley. This segment of Route 92 is unconstructed and the alignment is not adopted. Adoption of this portion of Route 92 was rescinded in 1976. However, it remains in the State highway system. The land use along this segment is both commercial and residential, with the Hayward City Center located near the alignment. This segment of the route was intended to serve as a connector from Route 580 to Route 238 and Route 880, improve traffic flow through the City of Hayward, and improve access to the San Mateo-Hayward Bridge from the Route 580 corridor.

The realignment of a portion of Route 238 will be located near this segment of Route 92. See the Route Concept Report for Route 238 for further information concerning projected traffic conditions for this portion of the Routes 92/238 corridor.

Segment F passes through the City of Hayward and an unincorporated area of Alameda County near Castro Valley.

1. Existing Facilities

   Segment F of Route 92 is unconstructed. There is presently no adopted alignment for this segment of the route.

2. Current Operating Conditions

   This segment is unconstructed.

3. Accident Rate (1/80 - 12/83)

   This segment is unconstructed.

4. Future Operating Conditions

   This segment is to remain unconstructed.

5. Route Concept

   The concept is for Segment F of Route 92 to remain unconstructed.

6. Route Improvements (Post 1985 STIP)

Segment F of Route 92 is to remain unconstructed.

7. Concept Concerns

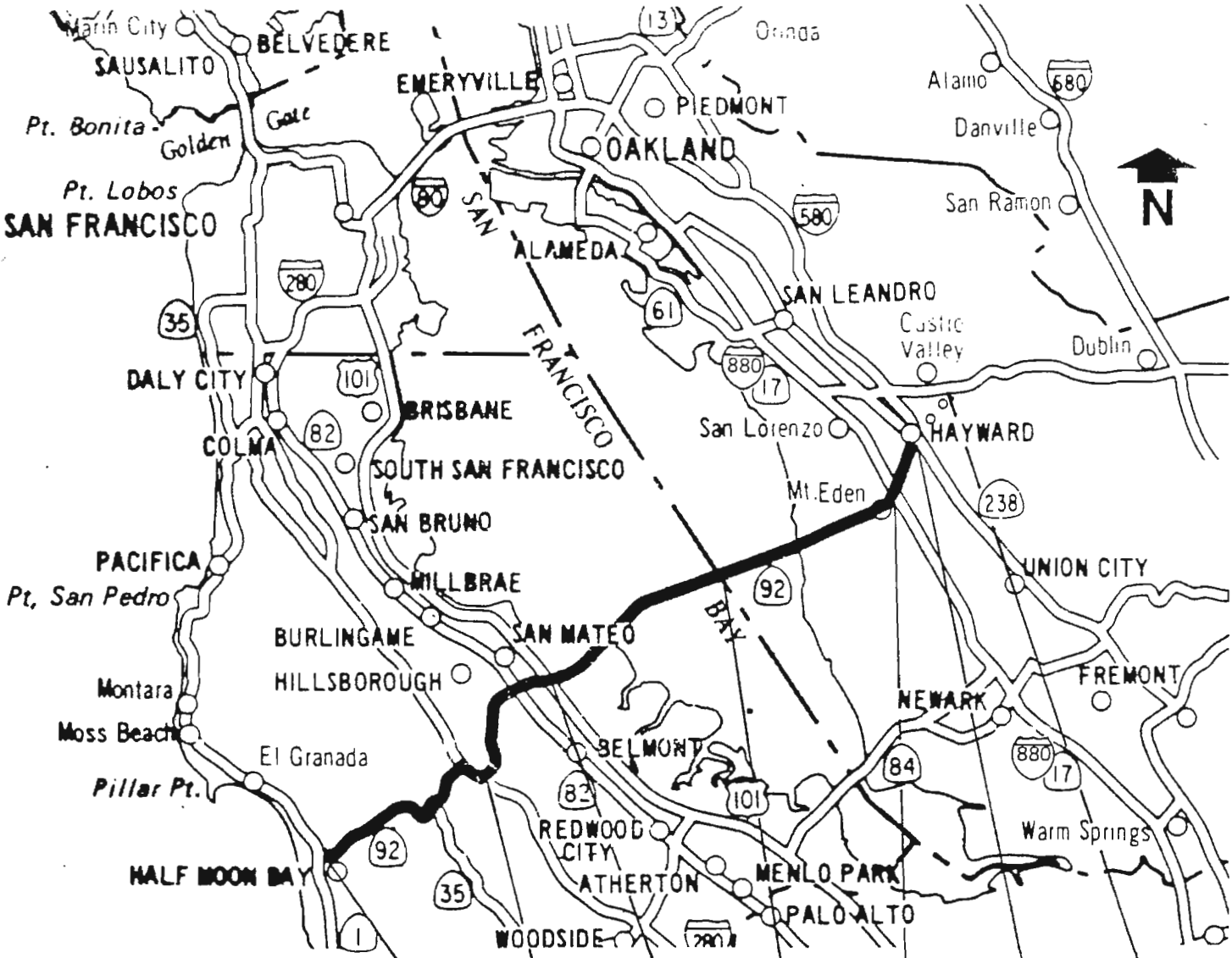
The City of Hayward and Caltrans are planning the construction of Route 238 as an expressway/freeway between Industrial Boulevard and Route 580. The new alignment of Route 238 would lie along the approximate location of Segment F of Route 92. Should this new Route 238 facility be constructed, the possibility of constructing Route 92 between the present Routes 238/185/92 Junction and the new alignment of Route 238 should be studied.

Refer to the Route 238 Route Concept Report for more information regarding this portion of the Routes 92/238 corridor through Hayward.

8. Local Concerns

The City of Hayward opposes the construction of Route 92 along a new alignment between Route 880, the Route 238/185/92 Junction and Route 580. The City would prefer Route 238 to be realigned and constructed as an expressway/freeway facility between Industrial Blvd and Route 580. This new facility will satisfy the need for constructing Route 92 between Route 238 and Route 580.

EXHIBIT A



SEGMENT		SM 0.00 A	SM R7.276 B	SM 12.141 C	SM R18.801 ALA R0.00 D	ALA 6.392 E	ALA 8.219 F	ALA 10.419
NO. OF LANES	PRESENT	2C	4F	4-6F	4F	4-6C Div.	UNCONSTRUCTED	
	1995	2C	4F	4-6F	4F	4-6C Div.		
	2005	2C	4F	4-6F	4F	4-6C Div.		
LEVEL OF SERVICE	PRESENT	F-25	F-25	D-40	E-30	C-40		
	1995	F-20	F-20	F-20	F-20	E-30		
	2005	F-10	F-15	F-15	F-15	F-15		
TERRAIN		MT.	ROLL.	FLAT	FLAT	FLAT		
GRADES		3-6%	0-6%	0-3%	0-3%	0-3%		
ACTUAL	Accidents Per MVM	3.58	1.31	1.27	0.86	5.17		
	Fatalities Per MVM	0.024	0.006	0.014	0.006	0.016		

EXPLANATION TO EXHIBIT A

LEVEL OF SERVICE

The Level of Service on a roadway is a measure of the speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort, convenience, and operating cost. A roadway designed for a certain level of service will actually operate at different levels throughout the day. The level of service on a roadway varies inversely as some function of the traffic volume. The level of service indicated in Exhibit A represents the level of service during the AM peak hour.

TERRAIN

Terrain describes the adjacent topography as to its effect on construction cost. (F-Flat, R-Rolling, M-Mountainous) Flat reflects minor grading; rolling reflects moderate grading; mountainous reflects heavy grading as economic considerations. (Note that terrain is a measure of construction cost while grade is a measure of operating cost as used in this report.)

GRADES

Grade line, a generalization of the grades along the center line of the highway. Four types of codes are used. They are:

F - Flat grade, 0-3 percent upgrades and downgrades.

R - Rolling, 3-6 percent upgrades and downgrades and sustained grades less than 1/4 mile.

M - Moderate, grades greater than 6 percent for one-half or less of the segment length and sustained grades 1/4 to 3/4 mile in length.

S- Steep, grades greater than 6 percent for more than one-half the segment length and sustained grades greater than 3/4 mile in length.

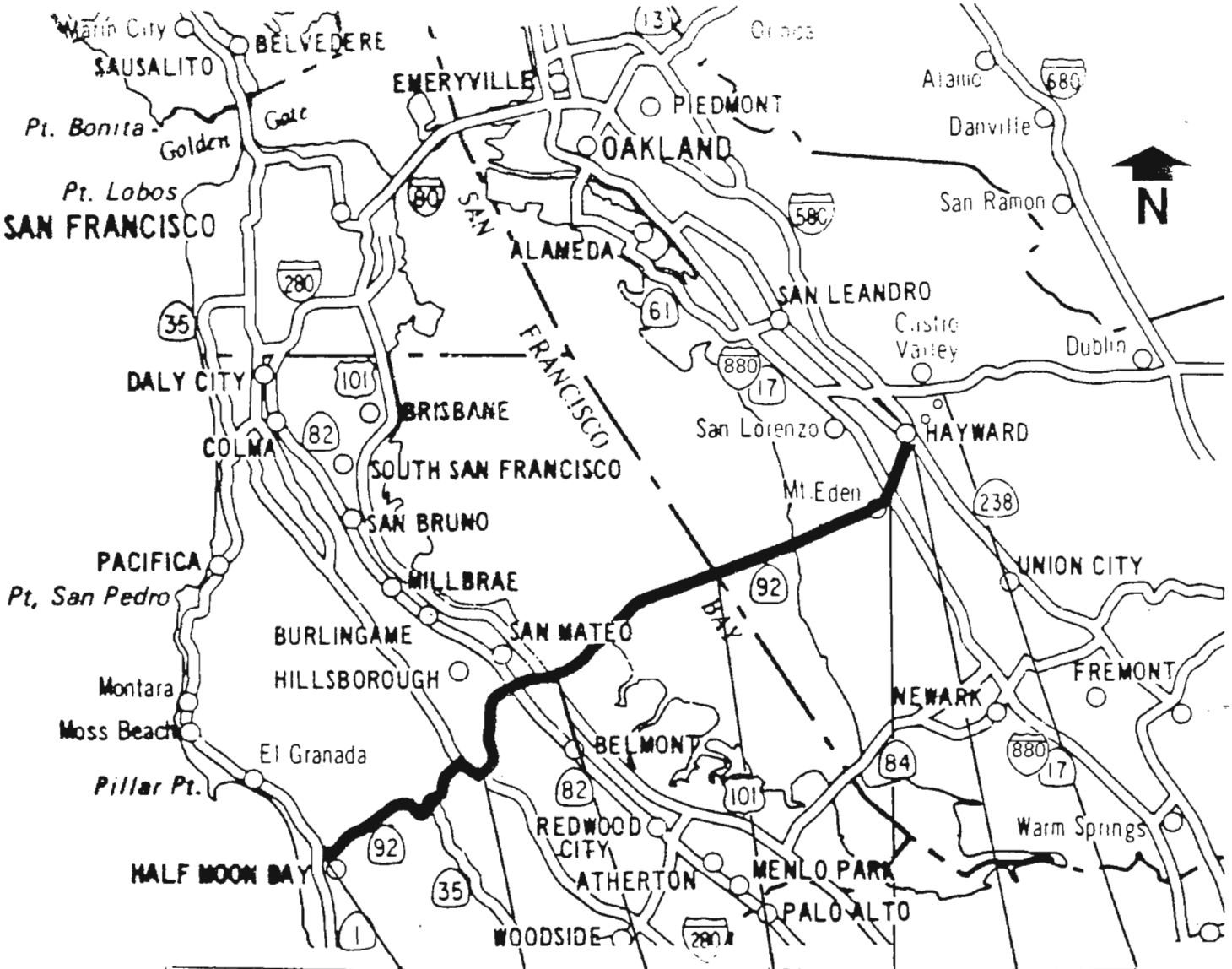
ACCIDENTS PER MVM

The number of accidents per million vehicle miles driven along the segment

FATALITIES PER MVM

The number of fatalities per million vehicle miles driven along the segment

EXHIBIT B



SEGMENT		SM 0.00 A	SM R7.276 B	SM 12.141 C	SM R18.801 ALA R0.00 D	ALA6.392 E	ALA 8.219 F	ALA10.419
A.A.D.T. (1000)	1982	13-17	35-65	63-48	48-74	38-35	UNCONSTRUCTED	
	1995	21-27	53-95	92-52	52-85	42-38		
	2005	23-33	66-113	110-61	61-99	49-45		
P.H.V. (100)	1982	16-2	58-17	6-30	6-37	9-16		
	1995	29-11	62-21	19-57	19-52	17-23		
	2005	35-13	75-26	21-66	21-61	20-27		
AVE HWY SPEED		45	70	70	70	45		
OPERATING SPEED		27	44	54	31	36		
V/C	1982	.44-1.00	1.00-.63	1.00-.50	.80-.62	1.00-.54		
	1995	1.40-1.93	.78-1.18	1.43-.72	1.30-.85	.96-.79		
	2005	1.60-2.33	.95-1.38	1.65-.83	1.53-1.00	1.13-.92		
YEAR CAPACITY WILL BE REACHED		1982	1982	1985	1985	2000		

EXPLANATION TO EXHIBIT B

AADT

Annual Average Daily Traffic (In Thousands) in both directions.

P.H.V.

Peak Hour Vehicles (In Hundreds). Number of vehicles in one direction during the morning (AM) Peak Hour.

AVE HWY SPEED

The Average Highway Speed is the weighted average of the design speeds within a highway section. (Design speed is a speed selected to establish specific minimum geometric design elements for a particular section of highway.) On non-engineered roads the average highway speed has been estimated.

OPERATING SPEED

A computed value based on the V/C ratio and the average highway speed. Basically, it represents the present operating speed during the present design hour volume of traffic on existing highway geometric. For segments of highway controlled by traffic signals, an "S" replaces the operating speed and generally represents speeds of 15 to 30 MPH.

V/C

Ratio of Volume to Capacity. Volume represents the number of vehicles per hour that want to travel the highway as represented by the present design hour volume. Capacity represents the maximum number of vehicles per hour the highway can carry as indicated in the Highway Capacity Manual.

D/C

Ratio of Demand to Capacity. Demand represents the projected number of vehicles per peak hour that will want to travel the highway. Capacity represents the maximum number of vehicles per hour the highway can carry.
(Projected Peak Hour Demand/Design Capacity).

EXHIBIT C

ROUTE 92 EXISTING FACILITIES

ROUTE SEGMENT	COUNTY	FROM P.M.	TO P.M.	LENGTH	TOTAL TRAVELED WAY WIDTH (FEET)	NUMBER OF LANES	OUTSIDE SHOULDER WIDTH (FEET)	MEDIAN WIDTH (FEET)
A	SM	0.000	7.276	7.276	22-34	2C	1-8	0
B	SM	7.276	12.141	4.865	48	4F	8	16-46
C	SM	12.141	18.801	6.660	48-76	4F-6F	0-10	8-46
D	ALA	0.000	6.392	6.392	48	4F	8-10	22-46
E	ALA	6.392	8.219	1.827	50-72	4C-6C	4-12	12-22
F	ALA	8.219	10.419	2.200	-UNCONSTRUCTED-			

EXISTING FACILITIES (BRIDGES)
RTE 92

EXHIBIT

ROUTE SEGMENT	BRIDGE NUMBER	NAME OR DESCRIPTION	POST MILE	DIST	CO	RTE	CITY	STRUCTURE TYPE OR PUC NUMBER	WID OR XTE TYPE	LENGTH PROT	WIDTH
A	35 79	FIRST CREEK	1.40	04	SM	92		CAF	MP	13	
A	35 80	SHORT CREEK	2.90	04	SM	92		CAF	MP	15	24
A	35 15	PILARCITOS CREEK	3.31	04	SM	92		CSC		75	37
B	35 245F	EBD CONN OC	R7.28	04	SM	92		QBCCBC		1245	49
B	35 243L	RTE 280 92 SEP	R7.30	04	SM	92		QBC		328	56
B	35 243R	RTE 280 92 SEP	R7.32	04	SM	92		QBC		321	80
B	35 244G	WBD CONN OC	R7.36	04	SM	92		QBCCBC		1436	49
B	35 246F	S CONNECTOR UC	R7.36	04	SM	92		CB TUN		52	
B	35 246F	S CONNECTOR UC	R7.36	04	SM	92		CB TUN		52	
B	35 207	RALSTON POL OC	R7.93	04	SM	92		QBC		228	78
B	35 203	DE ANZA BLVD UC	R8.67	04	SM	92		QB		133	86
B	35 162	W HILLSDL B UC	R9.38	04	SM	92	SM	QB		141	102
B	35 161	ALAMEDA DLP OC	10.56	04	SM	92	SM	CBC		178	87
B	35 1561	RTE 92/82 SEP	11.19	04	SM	92	SM	CBC		186	41
B	35 156R	RTE 92/82 SEP	11.19	04	SM	92	SM	CBC		186	41

EXISTING FACILITIES (BRIDGES)
RTE 92

EXHIBIT D

ROUTE SEGMENT	BRIDGE NUMBER	NAME OR DESCRIPTION	POST MILE	DIST	CO	RTE	CITY	STRUCTURE TYPE OR PUC NUMBER	WID OR XTE TYPE	LENGTH PROT	WIDTH
B	35 160	PALM AVENUE UC	11.30	04	SM	92	SM	CB		63	172
B	35 157L	HAYWARD PK OH	11.38	04	SM	92	SM	CBC		324	41
B	35 157L	HAYWARD PK OH	11.38	04	SM	92	SM	CBC		318	31
B	35 158L	S DELAWARE S U	11.61	04	SM	92	SM	CBC		142	50
B	35 158R	S DELAWARE S U	11.61	04	SM	92	SM	CBC		142	37
B	35 252L	GRANT STREET UC	R11.78	04	SM	92	SM	QBCTS		666	26
B	35 252R	RTE 92/101 SEP	R11.78	04	SM	92	SM	QBCTS CBC		2245	39
B	35 27	19TH AVENUE SEP	R12.14	04	SM	92	SM	SSC		311	26
C	35 193	MARINA LAGOON	12.42	04	SM	92	SM	QI CS		619	52
C	35 235	MARINER'S LAG	12.60	04	SM	92	SM	QA TS		160	64
C	35 284	MARIN IS BV OC	12.79	04	SM	92	SM	QBCCG		906	72
C	35 191	FOSTER CI B OC	R13.61	04	SM	92	FSTC	QI CS		805	52
C	35 189L	FOSTER CI LGOON	R13.83	04	SM	92	FSTC	CSC		521	39
C	35 189R	FOSTER CI LGOON	R13.83	04	SM	92	FSTC	CSC		521	39
C	35 54	SAN MATEO-H BR	R14.44	04	SM	92	FSTC	SB PG CG		36069	54

EXISTING FACILITIES (BRIDGES)
RTE 92

EXHIBIT P

ROUTE SEGMENT	BRIDGE NUMBER	NAME OR DESCRIPTION	POST MILE	DIST	CO	RTE	CITY	STRUCTURE TYPE OR PUC NUMBER	WID OR XTE TYPE	LENGTH PROT	WIDTH
D	33 372	CLAWITER RD OC	R4.48	04	ALA	92	HAY	QIC		356	28
D	33 92L	MT EDEN OVERHD	R4.91	04	ALA	92	HAY	CBC		202	41
D	33 92R	MT EDEN OVERHD	R4.91	04	ALA	92	HAY	CBC		202	37
D	33 370L	INDUSTRIAL B U	R5.12	04	ALA	92	HAY	QI CG		170	43
D	33 370R	INDUSTRIAL B U	R5.12	04	ALA	92	HAY	QI CG		170	43
D	33 445	HESPERN BV OC	R5.76	04	ALA	92	HAY	CBC		205	99
D	35 446	CALAROGA AV OC	R6.03	04	ALA	92	HAY	QBCCBC		184	40
D	33 188	RTE 92/880 SEP	6.39	04	ALA	92	HAY	CGC		343	94
E	33 93	ORCHARD AVE UP	7.26	04	ALA	92	HAY	SG		129	
E	33 93W	ORCHARD A UP P	7.31	04	ALA	92	HAY	2W E S			
E	33 94W	JACKSON ST PP	8.01	04	ALA	92	HAY	2W E S			
E	33 94	JACKSON ST UP	8.02	04	ALA	92	HAY	SGT		133	
E	33 448	JACKSON BRT UP	8.03	04	ALA	92	HAY	QX		276	

ROUTE 92

ACCIDENT REPORT BETWEEN 1-80 AND 12-83

EXHIBIT E

LOCATION PM	SEGMENT	TOTAL	NO. OF ACCIDENTS FATAL	INJ	F+I	PERSONS KILLED	PERSONS INJURED	ACCIDENT RATE* FATAL	F+I	TOTAL	STATEWIDE RATE** FATAL	F+I	TOTAL
SM 0.000 - R7.280	A	582	4	281	285	6	451	.024	1.75	3.58	.065	1.31	2.60
SM R7.280 - 12.140	B	412	2	189	191	2	260	.006	0.60	1.31	.016	0.45	1.13
SM 12.140 - R18.800	C	602	7	294	301	7	500	.014	0.63	1.27	.015	0.51	1.31
ALA R0.000 - 6.240	D	400	3	187	190	3	303	.006	0.41	0.86	.014	0.43	1.10
ALA 6.240 - 8.218	E	624	2	190	192	2	283	.016	1.59	5.17	.023	1.08	2.75
ALA 8.219 - 10.419	F	--UNCONSTRUCTED--											

* RATES ARE PER MVM (MILLION VEHICLE MILES)

** STATEWIDE AVERAGES FOR THIS TYPE OF FACILITY

ROUTE 92 TRAFFIC TABLE EXHIBIT F

SEG	CO	POST MILE	TRUCK% AA DT	TRUCK% PK HR	1982 AA DT	1982 AM-PK AH	1982 AM-PK BK	1982 NO L	1982 V/C	1982 LOS	1982 LN	1982 CAP		1995 AA DT	1995 AM-PK AH	1995 AM-PK BK	1995 NO L	1995 D/C	1995 LOS	1995 LN		2005 AA DT	2005 AM-PK AH	2005 AM-PK BK	2005 NO L	2005 D/C	2005 LOS	2005 LN
A	SM	0.00			JUNCTION ROUTE 1																							
			4	4	13	6	2	1	0.44	B	1	1350		21	21	14	1	1.40	F	2		23	24	16	1	1.60	F	2
A	SM	0.20			MAIN STREET																							
			7	5	13	11	3	1	0.81	D	1	1350		22	22	15	1	1.47	F	2		25	25	17	1	1.67	F	3
A	SM				SEVERAL INTERSECTIONS																							
			9	6	13	14	3	1	1.00	F	2	1400		20	21	14	1	1.40	F	2		25	26	17	1	1.73	F	3
A	SM	5.19			JUNCTION ROUTE 35 SOUTH																							
			8	6	17	16	3	1	1.00	F	2	1600		27	29	16	1	1.93	F	3		33	35	19	1	2.33	F	3
A	SM	7.19			JUNCTION ROUTE 35 NORTH																							
			6	5	12	14	15	1	1.00	E	2	1500		20	20	11	1	1.33	F	2		24	25	13	1	1.67	F	3
B	SM	R7.28			ROUTE 280																							
			2	2	39	58	22	3	0.97	E	4	2000		65	62	33	3	1.03	F	4		80	75	40	3	1.25	F	3
B	SM	R7.93			RALSTON - POLHEMUS ROAD																							
			2	2	35	45	19	2	1.00	F	3	2250 *		53	31	21	2	0.78	C	2		66	38	26	2	0.95	E	3
B	SM	R8.67			DE ANZA BLVD																							
			2	2	40	50	20	2	1.00	F	3	2500 *		65	36	24	2	0.90	D	2		76	44	29	2	1.10	F	3
B	SM	R9.38			WEST HILLSDALE BLVD																							
			1	1	44	41	19	2	1.00	F	3	2050 *		63	36	29	2	0.90	D	2		80	44	36	2	1.10	F	3
B	SM	R10.56			ALAMEDA DE LAS PULGAS																							
			1	1	45	34	17	2	0.85	D	2	2000		65	37	30	2	0.93	E	3		82	46	37	2	1.15	F	3
B	SM	R11.21			ROUTE 82																							
			2	2	54	30	18	2	0.75	C	2	2000		78	37	37	2	0.93	E	3		99	46	46	2	1.15	F	3
B	SM	R11.61			SOUTH DELAWARE STREET																							
			3	2	65	25	20	2	0.63	C	2	2000		95	47	47	2	1.18	F	3		113	55	55	2	1.38	F	3
B	SM	12.14			ROUTE 101																							

* THE AUXILIARY LANE AT THIS LOCATION IS NOT COUNTED AS A THROUGH LANE
THUS THE CAPACITY EXCEEDS 2000 VEHICLES PER HOUR PER LANE.
THE CAPACITY IS LESS THAN 2000 VEHICLES PER HOUR PER LANE WHEN
THE AUXILIARY LANE IS INCLUDED.

ROUTE 92 TRAFFIC TABLE EXHIBIT F

SEG	CO	POST MILE	TRUCK% AA DT	TRUCK% PK HR	1982 AA DT	1982 AM-PK AH	1982 AM-PK BK	1982 NO L	1982 V/C	1982 LOS	1982 LN	1982 CAP	1995 AA DT	1995 AM-PK AH	1995 AM-PK BK	1995 NO L	1995 D/C	1995 LOS	1995 LN	2005 AA DT	2005 AM-PK AH	2005 AM-PK BK	2005 NO L	2005 D/C	2005 LOS	2005 LN
C	SM	12.14			ROUTE 101																					
			3	63	20	23	2	0.85	D	2	1350	92	38	57	2	1.43	F	4	110	44	66	2	1.65	F	3
C	SM	12.38			SOUTH NORFOLK STREET																					
			5	3	59	15	25	2	0.93	E	3	1350	80	35	53	2	1.33	F	3	97	41	61	2	1.53	F	3
C	SM	12.85			MARINERS ISLAND BLVD																					
			6	4	62	11	27	2	1.00	E	3	1350	64	26	49	2	1.23	F	3	78	30	57	2	1.43	F	3
C	SM	R13.61			FOSTER CITY BLVD																					
			6	4	48	6	30	2	0.75	C	2	2000	52	19	43	2	1.08	F	3	61	21	50	2	1.25	F	3
C	SM	R14.44			SAN MATEO-HAYWARD BRIDGE																					
			6	4	48	6	30	3	0.50	B	3	2000	52	19	43	3	0.72	C	3	61	21	50	3	0.83	D	3
C	SM	R18.80			SAN MATEO/ALAMEDA CO. LINE																					
			6	4	48	6	30	3	0.50	B	3	2000	52	19	43	3	0.72	C	3	61	21	50	3	0.83	D	3
D	ALA	R2.59			TOLL PLAZA																					
			6	4	48	6	30	2	0.75	C	2	2000	52	19	43	2	1.08	F	3	61	21	50	2	1.25	F	3
D	ALA	R4.48			CLAWITER ROAD																					
			6	4	55	8	32	2	0.80	C	2	2000	62	22	52	2	1.30	F	3	73	26	61	2	1.53	F	3
D	ALA	R5.14			INDUSTRIAL BLVD																					
			6	4	55	11	30	2	0.75	C	2	2000	62	26	48	2	1.20	F	3	73	30	56	2	1.40	F	3
D	ALA	R5.76			HESPERION BLVD																					
			6	4	74	17	37	3	0.62	C	3	2000	85	34	51	3	0.85	D	3	99	40	60	3	1.00	E	3
D	ALA	6.39			ROUTE 880																					
			3	2	53	14	25	2	0.63	C	2	2000	61	24	37	2	0.93	E	3	71	29	43	2	1.08	F	3
E	ALA	6.78			SANTA CLARA STREET																					
			3	2	38	11	16	2	1.00	E	3	800	42	19	23	3	0.96	E	4	49	22	27	3	1.13	F	3
E	ALA				SEVERAL INTERSECTIONS																					
			3	2	35	11	13	2	0.81	D	2	800	38	17	21	3	0.88	D	3	45	20	25	3	1.04	F	3
E	ALA	7.79			WINTON AVENUE																					
			3	2	38	13	13	2	0.81	D	2	800	42	19	23	3	0.96	E	4	49	22	27	3	1.13	F	3
E	ALA				SEVERAL INTERSECTIONS																					
			3	2	35	13	9	3	0.54	B	3	800	38	19	19	3	0.79	C	3	45	22	22	3	0.92	E	3
E	ALA	8.22			JUNCTION ROUTES 238/185/92																					

ROUTE 92 FACILITY TABLE

EXHIBIT C

SEG	COUNTY POST MILES BEGIN END LOCATION	1985 -PRESENT- LOS	FACILITY	1995 -1985 STIP- LOS	FACILITY	2005 -NO BUILD- LOS	FACILITY	2005 -ROUTE CONCEPT- LOS	FACILITY	2005 TARGET -NEED- LOS	FACILITY
A	SM 00.000 - 5.191 JCT RTE 1 - ROUTE 280	F-25	2C	F-20	2C	F-10	2C	TO BE DETERMINED		D-40	4-6E
B	SM R7.276 - 12.141 ROUTE 280 - ROUTE 101	F-20	4F	F-20	4F	F-15	4F	D-40	6F	D-40	6F
C	SM 12.141 - R18.801 ROUTE 101 - ALA/SM COUNTY LINE	D-40	4F-6F	F-20	4F-6F	F-15	4F-6F	D-40	6F	D-40	6F
D	ALA R00.000 - R4.549 SM/ALA CO. LINE - CLAWITER ROAD	C-50	4F	F-25	4F	F-20	4F	D-40	6F	D-40	6F
	ALA R4.459 - 6.392 CLAWITER ROAD - ROUTE 880	E-30	4F	F-20	4F	F-15	4F	D-40	8F	D-40	8F
E	ALA 6.392 - 8.219 ROUTE 880 - JCT RTES 238/185	C-40	4-6C	E-30	4-6C	F-15	4-6C	F-15	6C	D-40	6E
F	ALA 8.219 - 10.419 JCT RTES 238/185 - ROUTE 580	UNCONSTRUCTED		UNCONSTRUCTED		UNCONSTRUCTED		TO REMAIN UNCONSTRUCTED		D-40	6E

EXPLANATION TO TRAFFIC VOLUME TABLES

COLUMN	DESCRIPTION
SEG	Route Segment
CO	County Abbreviations
POST MILE	Post Mile in County
AADT	Annual Average Daily Traffic (Thousands)
AM-PK	Morning Peak Hour Traffic
AH	Volume - Ahead Direction (Hundreds)
BK	Volume - Back Direction (Hundreds)
NO L	Number of Lanes (Existing) - One Direction
V/C	Volume/Capacity: Ratio of Peak Hour Volume to Maximum Number of Vehicles per Hour for Peak Direction During Peak Hour (Peak Hour Volume/Capacity)
D/C	Demand/Capacity: Ratio of Volume of Projected Demand to Maximum Number of Vehicles per Hour (Projected Peak Hour Demand/Design Capacity)
LOS	Level of Service According to Functional Classification of the Route Relative to the Terrain and Facility
LN	Number of Lanes Needed to Meet the Conceptual LOS
CAP	Capacity of Facility (Capacity per Lane)

Facility	Vehicles per Hour per Lane Expected Pk Hr Capacity
Freeway	2000
Expressway or Divided/ One-Way Arterial	1500
Other Type of Arterial	1350
Rural Road	1200
City Street or Mountainous Road	800

% TRUCK AADT	Truck Percent of the Average Annual Daily Traffic Count
% TRUCK PK HR	Truck Percent at Peak Hour

RELATIONSHIP OF LEVEL OF SERVICE TO OPERATING SPEED

Level of Service	Facility Type	Minimum Operating Speed	Assigned Operating Level of Service
B	Freeways, Expressways, or Multi-Lane Divided Conventional Highways	55 MPH	B-55
B	Two-Lane Conventional Highways	50 MPH	B-50
C	Freeways or Expressways	50 MPH	C-50
C	Multi-Lane Conventional Highways	45 MPH	C-45
C	Two-Lane Conventional Highways	45 MPH	C-45
C	Two-Lane Conventional Highways	40 MPH	C-40
D	Freeways or Expressways	40 MPH	D-40
D	Conventional Highways	35 MPH	D-35
D	Conventional Highways with controlling traffic signals	15-30 MPH	D-35

The operating level of service on a roadway is a measure of the speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort, convenience, and operating cost. A roadway designed for a certain level of service will actually operate at different levels throughout the day. The level of service on a roadway varies inversely as some function of the traffic volume.

In the Route Concept Report, the level of service is followed by the minimum operating speed.

* Not all conditions are represented by this chart.

ROADWAY LEVEL OF SERVICE

EXPLANATION

LEVEL OF SERVICE A — VOLUME/CAPACITY RATIO = .00 - .40

Free flow conditions
Low volumes
High operating speed
Uninterrupted flow
No restriction on maneuverability
Drivers maintain desired speeds
Little or no delays

LEVEL OF SERVICE B — VOLUME/CAPACITY RATIO = .41 - .58

Stable flow conditions
Operating speeds beginning to be restricted

LEVEL OF SERVICE C — VOLUME/CAPACITY RATIO = .59 - .80

Stable flow but speed and maneuverability
restricted by higher traffic volumes
Satisfactory operating speed for urban conditions
Delays at signals

LEVEL OF SERVICE D — VOLUME/CAPACITY RATIO = .81 - .90

Approaching unstable flow
Low speeds
Major delays at signals
Little freedom to maneuver

LEVEL OF SERVICE E — VOLUME/CAPACITY RATIO = .91 - 1.00

Lower operating speeds
Volumes at or near capacity
Unstable flow
Major delays and stoppages

LEVEL OF SERVICE F — VOLUME/CAPACITY RATIO = 1.01 OR MORE

Forced flow conditions
Low speeds
Volumes below capacity, may be zero
Stoppages for long periods because of
downstream congestion

TRAVEL DEMAND PROJECTIONS METHODOLOGY (ABSTRACT)

1995 & 2005 Demand Person Trip Projections
34 x 34 ABAG/MTC Region Superdistricts Matrix
Computer-Assisted Four-Step Conventional Gravity Model
(Housing & Employment based on ABAG's "Projections 83")

December 1983

INTRODUCTION: This modeling procedure developed traffic volume expansion factors and applied them to "census" volumes ("1980 Traffic Volumes on California State Highways") of state Highway segments at ABAG/MTC superdistrict (SD) borders (screenlines).

These projected 1995 and 2005 volumes were the basis for projecting volumes on on all mainline segments for the 1983/84 "Route Concept Reports".

In essence, this methodology is consistent with the elements of the conventional "four-step" procedure for travel demand forecasting as summarized in the FHWA/UMTA outline for UTPS models and as described in the NCHRP guide for urban travel estimations ("Quick Response").

SUMMARY: Criteria and methods used in each one of the four "steps":

1. Trip Generation: Based on ABAG projections per 34 MTC "superdistrict." Productions per MTC-observed person trips produced and households; attractions per employment (and housing), adjusted to observed attractions.

2. Trip Distribution: Based on zonal trips produced and attracted, distribution factors based on travel times, and calibration factors derived from MTC-observed vs. simulated 1980 trip interchanges.

3. Assignment: Based on zonal trip interchanges, "fastest path" criteria and experience of travel patterns.

4. Modal Split: Implies; it was assumed that, on the segment evaluated, modal percentages and occupancy rates would remain essentially unchanged.

ASSUMPTIONS: The following parameters would remain essentially unchanged between 1980 and 2005:

1. Trip production rates, as functions of the number of households and their superdistrict of location.

2. Trip attraction rates and adjustment factors, as functions of jobs, housing units and superdistrict of location.

3. Speeds: Change in corridor speeds may be proportional to regionwide speed changes, or may differ without significantly affecting distribution or assignment.

4. Time vs. Distribution Factor Functions, and Calibration Factors. Increased socio-economic densities vs. higher fleet efficiencies and/or real earnings would have compensatory effects on trip lengths.

EXPLANATION TO EXISTING FACILITIES (BRIDGES) TABLE

ROUTE SEGMENT:

Segment of route in which bridge is located.

BRIDGE NUMBER: Suffix, when used, is coded as follows:

J - Outer Outer Left
K - Left Outer Highway Structure
L - Left Structure or Left Inner Structure
C - Center Structure
R - Right Structure or Right Inner Structure
S - Right Outer Highway Structure
T - Outer Outer Right
Y - Structure or Grade Xing on State-owned and Maintained Connections not on main Highway (May be Closed)
W - Drainage Pumping Station
M - Buried Hazard or Miscellaneous Structure
Z - Access to Private Property or Closed with no access
E - Connector Structure
F - Connector Structure
G - Connector Structure
H - Connector Structure

NAME OR DESCRIPTION:

May contain miscellaneous information. Additional miscellaneous information may be found on the same line under the heading "Structure Type or PUC number or Pump Data".

ROUTE:

State highway route.

POST MILE:

Prefixes of R, M, and N refer to realigned routes. The prefix C refers to commercial routing. The prefix L refers to section paralleling another route (Non-Add). Post miles are to 1/100 mile.

COUNTY:

County in which bridge is located (Caltrans "Alpha" Code).

CITY:

City in which bridge is located (Caltrans "Alpha" Code).

EXPLANATION TO EXISTING FACILITIES (BRIDGES) TABLE

STRUCTURE TYPE OR PUC NUMBER:

Structure type - Three types may be shown for multiple-type structures. Spacings are 3-Column, 3-Column, and 3-Column.

Coding 1st two columns of all three types:

LS - Log Stringer
TS - Timber Stringer
TT - Timber Truss
TA - Timber Arch
SP - Steel Pipe (Girder)
SS - Steel Stringer (Rolled Sections)
SG - Steel Plate Girder
TB - Timber Slab (Laminated)
SB - Steel Box Girder
ST - Steel Truss
SA - Steel Arch
CS - Concrete Slab
PS - Precast Concrete Slab
PB - Precast Concrete Box Girder
CA - Concrete Arch
CB - Concrete Box Girder
CC - Concrete Box Culvert
CG - Concrete Girder
CP - Concrete Pipe
CU - Concrete Arch Culvert
PG - Precast Concrete Girders

QB - Cast in Place Prestressed Box Girder
QG - Cast in Place Prestressed Girder (Not in Box)
QS - Cast in Place Prestressed Slab
QX - Precast Prestressed Box Girder
QI - Precast Prestressed "I" Girder
QJ - Precast Prestressed Double "T" Girder
QK - Precast Prestressed "T" Girder
QT - Precast Prestressed Inverted "T" Girder
QU - Precast Prestressed Inverted "U" Girder
QW - Precast Prestressed Inverted "W" Girder
QA - Precast Prestressed Slab

SU - Suspension
MP - CMP or Multi Plate
TU - Tunnel
MA - Masonry Arch
CT - Combination Truss (Steel and Timber)
TW - Timber Retaining Wall
CW - Concrete Retaining Wall
SW - Steel Retaining Wall
CD - Concrete Dam
ED - Earth Dam
SLS- Seal Slab
FER- Ferry Boat

Third Column is coded, where it applies, as follows:

A - Welded
B - Welded Continuous
T - Through
L - Through Continuous
D - Deck
H - Deck Continuous
P - Pony
O - Open Spandrel
F - Earth Fill
B - Box (Box Girder)

C - Continuous
E - Continuous with Std. Cantilevered Ends (No Abuts.)
W - Sidewalk
K - Pier or Tower Span
I - Continuous over Inclined Bents
Q - Prestressed (Use Other Coding if Possible)
S - Stayed
R - Orthotropic

PUC Number (For Railroad Grade Crossing).

EXPLANATION TO EXISTING FACILITIES (BRIDGES) TABLE

WID. OR EXT. TYPE:

Latest widening or extension.
See code explanation under STRUCTURE TYPE OR PUC NUMBER.

LENGTH (PROT):

Total bridge length (Feet) or grade crossing protection.
Main type of signal only coded as follows:

FLC - Flashing Lights on Cantilever Arms
FL - Flashing Light Signals
G - Manual Gates
H - Human Flagmen
K - Automatic Gates
M - Flashing Light Signals with Rotating Stop Banner
O - Standard Overhead Sign
T - Traffic Signals Synchronized
W - Standard Wigwag
WM - Magnetic Wigwag Flagmen or Other Type of Wigwag with Flashing Light Aspect
X - Standard Crossbuck
XR - Reflectorized Crossbuck

WIDTH:

Bridge width (in feet).