Staff Report

ASSESSMENT OF SAN FRANCISCO BAY HIGHWAY AND BRIDGE PROJECTS

April, 1989

San Francisco Bay Conservation and Development Commission

STAFF REPORT

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SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION
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INTRODUCTION

Recently, a number of road and bridge projects affecting the Bay have been brought to the Commission's attention. To better understand the number and kinds of future road and bridge projects involving fill and their potential effects on the Bay, the Commission requested an inventory identifying the location of major proposed road and bridge projects likely to affect the Bay, whether they would require fill, and if so, whether for a road or a bridge, when the proposed projects are planned to be constructed, the names of the sponsors, and a general assessment of the projects' likely impacts on Bay resources. This report provides the inventory. The Commission's role and authority in this matter and the general forces that have resulted in increased traffic congestion, are also discussed.

BCDC's Role in Transportation

By the time the San Francisco Bay Conservation and Development Commission was created in 1965, several hundred acres of the Bay had been filled for roads and bridges. Even though roads can be built inland from the Bay where there are no wetlands and soils for construction are more solid, cost, expediency, and lack of awareness of the importance of the Bay's natural resources resulted in roads being built along the shoreline edge or in the Bay on fill. The Eastshore Freeway (Interstate 80) north of the Bay Bridge, the Candlestick Causeway (Route 101) in Brisbane, and the approaches to the San Mateo (Route 92) and Dumbarton (Route 84) Bridges are a few examples of roads on fill, in the Bay, marshes, and in salt ponds.

In the 1960s, several large fill proposals for roads and bridges were advocated. Examples include a "Southern Crossing" between San Francisco and Alameda, an Outer Eastshore Freeway (Route 61) between Albany and San Leandro, a Bayfront Freeway (Route 87) bayward of Highway 101 between San Francisco and San Jose, and Route 37 between Vallejo and Novato. The serious prospect of additional filling in the Bay for such projects added fuel to the drive then underway to control filling the Bay.

In 1965, the Legislature responded to fill concerns by passing the McAteer-Petris Act (Government Code Sections 66600 through 66661) to control indiscriminate and unnecessary Bay fill. In 1969, after three years of intensive planning by the Commission leading to the San Francisco Bay Plan, the Legislature amended the McAteer-Petris Act to incorporate most of the Commission's recommendations in the San Francisco Bay Plan into law and to establish the Commission as a permanent agency to carry out the plan and law.

Pursuant to the McAteer-Petris Act, "fill" is defined broadly and includes any material whether earth supporting a road or pilings supporting a bridge or causeway. The Commission can authorize only fill that is: (1) for projects necessary for regional health, safety, and welfare of the entire region; (2) for "water-oriented" uses; or (3) in small amounts to improve shoreline appearance or to increase public access to the Bay. Roads are not water-oriented, whereas, a bridge is. Therefore, the Commission cannot authorize fill for a road under the McAteer-Petris Act unless the road is either necessary for the regional health, safety, and welfare, is for a bridge, or involves only a small amount of fill that is ancillary to a project designed primarily to improve shoreline appearance or provide new public access to the Bay.

In addition, transportation projects must be consistent with the Bay Plan transportation policies. The Bay Plan transportation findings and policies are included in Appendix A. These policies prohibit any form of fill including bridges in the Bay unless the Commission finds that no reasonable alternative exists for solving the traffic problems without fill. They also require that before any freeway is proposed in the Bay "adequate research and testing should...[be undertaken to]...determine whether new methods of transportation could overcome the particular congestion problem without a route in the Bay..."

The Bay Plan's transportation policies have not been comprehensively examined since their adoption. In one respect, the reference to "freeway" in the Bay Plan does not reflect the 1969 decision of the Legislature to include bridges, but not roads, as water-oriented uses. Also, since the adoption of the transportation policies, the Metropolitan Transportation Commission (MTC) has been created and given responsibility for transportation planning. The Commission appoints one of its members to MTC. The Bay Plan transportation policies require updating to bring them into conformance with the provisions of the current McAteer-Petris Act, and to reflect MTC's role and planning efforts.

Finally, shoreline transportation projects funded by the federal government must be consistent with the Commission's management program. The Commission administers the coastal management program for the San Francisco Bay segment of the California coastal zone, which includes all the areas within the Commission's permit jurisdiction. Under the Coastal Zone Management Act, any project that could affect the uses of land and water

within the coastal zone that is licensed, funded, or otherwise approved by the federal government must be reviewed by the Commission to assure the project is consistent with the Commission's management program.

Thus, the Commission plays an important role in transportation planning. The Commission should continue to be involved in the planning of transportation routes, in or near the Bay, to ensure that: (1) the planning reflects the legal constraints and Bay Plan policies; (2) wildlife habitat and other areas of ecological importance are protected; (3) access to the Bay and views of the Bay are provided; (4) roads or bridges provide access to water-oriented industries and ports and public facilities, such as marinas, waterfront parks, Bayside walkways and bicycle paths, and fishing piers; (5) transportation facilities are designed to be visually pleasing additions to the Bay scene; and (6) of greatest importance, that transportation routes near the shore of the Bay do not require earthen fill.

The Commission, in its concern about Bay fill, has written letters objecting to roads that would require Bay fill. On March 4, 1983, letters were sent to the San Francisco peninsula mayors, city managers, planning directors, and the San Mateo County Board of Supervisors concerning proposals to widen Highway 101 on the San Francisco peninsula. On August 8, 1986, letters were sent to the regional director of the Federal Highway Administration and to the East Bay local governments about projects planned by the California Department of Transportation to extend Route 61 along the eastern shoreline of San Francisco Bay, between Albany and Newark. For the complete text of these letters, see Appendix B.

Causes of Traffic Congestion

Despite the legislative prohibitions against Bay fill for roads and the Commission's efforts to advise transportation planners about these prohibitions, many road and bridge projects requiring Bay fill are again being proposed. Some of these proposals appear to respond to increased traffic congestion which some polls indicate as Bay Area residents number one public problem facing the region.[1/] Of Course, traffic congestion is not unique to the Bay Area. Public opinion polls in Atlanta, Phoenix, Washington D. C., and at least a dozen other urbanized areas show citizens are more distressed with traffic congestion than with many other urban problems.[2/]

Seven major factors contribute to traffic congestion: (1) demographic changes, including a significant increase in two-income households; (2) decentralization of employment centers; (3) widening jobs/housing imbalance; (4) low-density housing patterns; (5) continued population and employment growth; (6) insufficient funding for transportation; and (7) restrictions on certain transportation funds so that mass transit projects are difficult to build.

Nationally, and in the Bay Area, demographic forces are forming an urban society that is more reliant than ever on the private automobile. Notably the increase in two-income households has resulted in a dramatic increased use of the automobile. In recent years in the Bay Area, the number of vehicle miles travelled annually has risen 4.2 percent per year, more than two-and-a-half times the rate of population growth. Not only has the volume of automobiles on the Bay Area roads increased, but also the average distance travelled by these automobiles has increased. Instead of locating close to one family member's job, many families now live somewhere between two job locations. And

two-career lifestyles tend to produce unorthodox commute patterns--a trip to the day care center or grocery store, sandwiched between home and work--that can confound traffic reduction strategies.[3/] The high cost of housing in close-in areas, leads many Bay Area residents to locate in more affordable housing that may be further from employment centers, resulting in more and longer trips per capita than ever before.

Decentralization of employment opportunities has its most pronounced effect along specific corridors and in the suburbs. The migration of office and high technology manufacturing jobs out of traditional downtown employment centers such as San Francisco, Oakland, and San Jose into suburban areas has been largely responsible for the explosive growth in traffic. The share of office floor space outside those three central cities increased from 25 percent in 1980 to over 60 percent in 1985.[4/] This movement to the suburbs has taken place in the Silicon Valley in Santa Clara County and more recently in the San Ramon/Dublin/Pleasanton area of Contra Costa County and in northern Marin County.

Part of the blame for worsening congestion can also be placed on the growing imbalance between where people live and work. Planners use a rule of thumb that communities have a job/housing balance when the ratio of jobs to housing units falls within the range of 0.75 to 1.25. By this standard, many American cities are "unbalanced" including the majority of the San Francisco Bay Area's very largest cities. Of the Bay Area's 22 most populous cities, six fall below and seven fall over this rate--i.e., over half are "unbalanced."[5/] Areas such as Solano and Sonoma Counties have become "unbalanced" with a preponderance of housing, whereas the Silicon Valley, San Ramon/Dublin/Pleasanton area, and northern Marin County are "unbalanced"

in favor of excessive jobs as compared to housing units. Consequently, these employment areas are a driving force for longer and more commute trips from home to job.

In addition to the jobs/housing imbalance, there is also the problem of a scarcity of upland space remaining for roads to serve existing and proposed development near the Bay. The upland space needs to be far enough inland from the Bay shoreline that the roads will not require fill in the Bay for their construction. The job/housing imbalance and the lack of upland for roads is partly a problem of untimely and inadequate regional planning, where little attention has been paid to regional implications of local land use decisions. Even though state law requires consistency among general plan elements, most local general plans have never provided for a traffic system adequate to the intensity of the land use proposal.[6/] Planning for sub-regional needs and impacts is even more problematic. Most general plans are inadequate when looking at larger-than-local issues.[7/] And sometimes the dilemma is one of timing. Infrastructure expansions are planned but are constructed later than the development they are meant to serve.[8/]

Low-density housing patterns also play a part in our current traffic congestion problem. High housing costs, particularly in and near older core areas, have encouraged workers to locate further away from traditional job-centers in areas where housing is cheaper. This not only has increased the average length of commute trips, but has also served to disperse homes and jobs beyond the point where they can be effectively served by transit. According to one report,

> The 1980 Census reports that only 11 percent of the Bay Area residents commuted via transit at the beginning of this decade, and ridership has actually been declining since 1981, despite a

> substantial increase in the number of residents commuting to work. Low-density job sites can also add to congestion. Workers in sprawling business parks readily point out that vanpooling is more difficult where each rider may work a quarter mile away from another.[9]

In most urbanized areas in the country, growth itself, coupled with a slowdown in new road construction, has contributed to congestion. Between 1975 and 1985, population and employment grew by around 18 percent and 30 percent, respectively, in the 32 largest metropolitan areas in the United States. Over the same period, traffic volumes in these areas increased by 12 percent, while highway mileage grew by little over one percent.[10] In the Bay Area, the same forces--growth and a slowdown in road construction and transit facilities --have added congestion to the highway system. The mounting growth pressures, felt by Bay Area residents, are not attributable as much to population growth as to job growth. The Bay Area population increased by 8.2 percent, from 1980 to 1985, whereas, the number of jobs grew by 9.8 percent over the same period. "Job growth is indisputably the 'engine' that drives regional growth, encouraging people to move here and enabling those raised here to stay."[11]

The slowdown in new road construction is explained, in part, by the seriously reduced level of funding for state highways through the state fuel tax, and with the near completion of the nation's interstate highway system. The roads needed to accommodate the increased number of vehicles in the Bay Area are financed largely out of the fuel taxes. California's nine-cent-per-gallon fuel tax is well below the national average of 15 cents. In fact, California ranks 45th among the 50 states in the amount of its fuel tax. The growth in the fuel tax is not linked to the growth in the economy or the inflation rate. In 1963, the state fuel tax was six cents per gallon, which equals 27 cents in 1986 dollars, when adjusted for inflation. In 1986, the state fuel

tax had risen to nine cents per gallon. Even with the three cent increase, the investment value of nine cents in 1986 is one third of the investment value of six cents in 1963.

Funding for interstate highway projects has begun to diminish with the scheduled completion of the interstate system in 1991-92. This has a significant impact as part of the slowdown in new road construction, because a large proportion of the new roads needed in the Bay Area to relieve congestion are on the interstate system. There are eight interstate highways in the Bay Area: the Eastshore Freeway (Interstate 80); the Junipero Serra Freeway (Interstate 280); Interstate 380 in San Mateo County connecting Interstate 280 and Route 101; the John T. Knox Freeway (Interstate 580); Interstate 680 connecting San Ramon and Livermore in Alameda County, and Walnut Creek and Concord in Contra Costa County with Solano County via the Benicia Bridge; Interstate 780 connecting Benicia with Vallejo, the Nimitz Freeway (Interstate 880); and Interstate 980 in downtown Oakland.

Larry Dahms, the Executive Director of the Metropolitan Transportation Commission, believes that reducing traffic congestion to tolerable limits in urban and suburban areas requires an increase in the nine-cents-per-gallon federal gas tax (not to be confused with the nine-cent-per-gallon state fuel tax), and legislation to redefine the federal highway and transit program in the post-interstate era.

Mr. Dahms believes automobile travel is considerably underpriced in urban areas of the country, with the result that the average motorist does not seriously consider an alternative, such as transit, to driving an automobile. This attitude extracts a huge toll from society in the form of congestion, air pollution and wasteful use of energy. Increased gasoline taxes produce a

double benefit: urgently needed revenues to shore up and expand the nation's transportation infrastructure, and a better market signal to the motorist about the true cost of driving.[12]

According to Mr. Dahms, the only way to achieve the goal of reducing congestion is to make wiser investments in the transportation infrastructure. At this time, freeways receive the bulk of federal financial support for transportation, and most of the money has been earmarked for interstate highways, which must meet rigorous standards and thus are the most expensive to build. Mr. Dahms believes the new federal program structure must recognize the need to expand options to include arterials, public transit and operational improvements to the region's highway system.[13/]

Some traffic congestion is relieved by transit. While traffic congestion in the Bay Area would be much worse without public transit services, overall transit ridership has declined an average of three percent for each of the past three years. Some of this decline is due to decentralization of employment and low-density housing patterns, both of which serve to disperse homes and jobs beyond the point where they can be effectively served by transit. Other causes responsible for the decline are: (1) cheaper and a more plentiful supply of gasoline compared to several years ago; (2) lower interest rates on new car financing; (3) less expensive automobile models on the market; and (4) increased transit operating costs. Because transit operations are labor intensive, operating cost increases follow closely the general cost of labor increases in the Bay Area. Transit operators are required by State law to recover a specified minimum percentage of the operating cost from the farebox. This minimum varies from approximately 10 percent for the Santa Clara County

Transit District, 20 percent for SamTrans, 25 percent for AC Transit, 33 percent for Muni, 36 percent for CalTrain, 37 percent for the Golden Gate Bus District, to 46 percent for BART. As operating costs go up, the operator must either decrease operating costs or increase farebox receipts. Operating costs can be lowered by decreasing service and farebox receipts can be increased by raising fares. However, both of these actions tend to reduce ridership, which in turn decreases farebox receipts, calling for another round of reduced service and/or increased fares, which further erodes ridership.

Despite the serious traffic congestion in the Bay Area, there is no evidence that relaxing the legislative prohibition against fill in the Bay for roads would markedly relieve congestion. There is approximately $1.173 billion worth of road projects proposed for construction in the Bay Area over the next five years. Only 11 percent of this amount--$127 million--are for roads that require filling the Bay. Conversely, 89 percent of the money is to be spent to relieve congestion on roads where Bay fill is not required. Thus, it does not appear that allowing roads to be built on fill in the Bay would be any more effective in solving the region's transportation problems in 1989 than they would have been when the Legislature banned fill for roads in 1969.

As noted, much of the increase in traffic volumes is being caused by the decentralization of population out of the traditional bayfront urban centers which have population densities that are high enough to be effectively served by transit. Even though it seems likely that improvements in alternative transportation projects, such as transit, car pooling and high occupancy vehicle lanes and ferry service, might alleviate some congestion problems in certain areas, it is not within the scope of this study to discuss alternative transportation projects or their impact on the Bay.

Transportation Planning

Four agencies play a major role in the Bay Area's transportation planning, namely: the Metropolitan Transportation Commission (MTC), the California Department of Transportation (CalTrans), the California Transportation Commission (CTC), and the Federal Highway Administration (FHWA). All are involved in preparing the annual update of the five-year State Transportation Improvement Program (STIP).

A Bay Plan transportation finding states that there is no regional coordination of the total transportation system of the Bay Area, and a Bay Plan policy recommends that a regional transportation agency should be established to fill this role. The entire Bay Plan findings and policies may be found in Appendix A. These findings and policies, which were adopted by the Commission in 1969, need to be revised to reflect the establishment of the MTC in 1971. The MTC is responsible for planning, coordinating, and programming the transportation projects for the Bay Area. It develops the regional portion of the STIP, including a list of projects, based upon a regional analysis of highway projects proposed by the cities and counties. The Bay Commission appoints one of its members to the eighteen-member MTC who may vote on transportation issues. Details regarding duties and powers of the MTC may be found in Appendix C.

CalTrans is responsible for the design, construction, and maintenance of all state highway projects. The CTC develops its portion of the STIP from the state perspective, covering maintenance, safety, and operational improvement projects, as well as new construction.

The CTC provides policy guidelines for the STIP process and upon receipt of the MTC and CalTrans recommended STIP, is responsible for reconciling the two and adopting the final STIP. The CTC can override the MTC on the regional portion of the STIP if it finds: (1) a conflict with an adjacent region; (2) a funding assumption that is incorrect; or (3) a conflict with a statewide interest.

The FHWA provides funding for most of the highway projects that appear in the STIP. For those highway projects that are federally-funded, the FHWA monitors, reviews and has approval power of the major steps in the planning, design and construction of those projects, including the environmental assessment.

The environmental assessment on many projects is performed after substantial effort and public funds have been expended in planning the project. Thereafter, much of the detail design work is not carried out until after the environmental assessment has been completed. In other words, the environmental analysis is carried out after the critical decision on the location of a transportation route has been made, but before there is sufficient design information to determine the amount and impacts of Bay fill needed for the route. As a result, the environmental document cannot be relied upon to screen out highway projects that involve fill.

NOTES

1. Ramon G. McLeod, December 21, 1988. Traffic No. 1 Problem in New Bay Area Poll. In: San Francisco Chronicle, p.1.

2. Robert Cervero, 1988. Congestion, Growth, and Public Choices. In: Berkeley Planning Journal, p. 55.

3. Bay Area Council, Summer, 1986. Growth: The Region at a Turning Point. In: Bay Area Council Bulletin, Vol.2, No. 2, p. 5.

4. Ibid.

5. Robert Cervero, 1988. Congestion, Growth, and Public Choices. In: Berkeley Planning Journal, pp. 63 and 64.

6. Bay Area Council, Summer, 1986. Growth: The Region at a Turning Point. In: Bay Area Council Bulletin, Vol. 2, No. 2, p. 8.

7. Ibid, p. 9.

8. Ibid, p. 7.

9. Bay Area Council, San Francisco, Ca., November 1988. Making Sense of the Regions Growth, p. 15.

10. Robert Cervero, 1988. Congestion, Growth, and Public Choices. In: Berkeley Planning Journal, pp. 57 and 58.

11. Bay Area Council, Summer 1986. Growth: The Region at a Turning Point. In: Bay Area Council Bulletin, Vol. 2, No. 2, p. 4.

12. Lawrence D. Dahms, February, 1989. why a New Program Direction. In: Transactions, Metropolitan Transportation Commission, p. 3.

13. Ibid.

INVENTORY OF PROJECTS

Forty-Two (42) road and bridge projects are proposed to be built in or near the Commission's jurisdiction in the next 25 years. If all of these projects are built, a total of approximately 363 acres of fill (124 acres of fill for roads and 239 acres of fill for bridges) would be placed in the San Francisco Bay and its adjacent marshes, wetlands and salt ponds. CalTrans is proposing 33 of the 42 projects; CalTrans' projects will result in 82 acres of fill for roads and 68 acres of fill for bridges. The remaining nine projects, which result in 42 acres of fill for roads and 171 acres of fill for bridges, are proposed by: the Marin/Sonoma Counties 101 Corridor Committee; the City and County of San Francisco; the Peninsula Highway 101 Study Committee; the North Richmond By-Pass Committee; the Nimitz-Doolittle (NIMDOTS) Transportation Corridor Study; and Senator Kopp through his proposed new bridge study legislation.*

Two inventories of the projects are provided, one organized by the geographical area where the project would be built and the other organized by the time frame within which the project is expected to be constructed. The geographical inventory uses corridors, which are generally the same as those used by the Metropolitan Transportation Commission's Regional Transportation

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* Senate Concurrent Resolution No. 20, introduced by Senator Kopp, February 2, 1989.

Plan. This inventory begins at the north end of the Bay with the North Bay Corridor and proceeds in a counter-clockwise direction around the perimeter of the Bay.

The second inventory lists the projects according to the following time frames: from the present to five years, from five to ten years, from ten to 20 years, and 20 years and beyond. The "present to five years" projects (see Figure 1 for location) are identified in the CalTrans' planning program. They have been selected by Caltrans, the MTC, and the CTC for construction in the immediate five year period if funding is available. The "five to ten years" projects (see Figure 2 for location) are selected by Caltrans as candidates for the next five year planning program. Projects in both of these time frames are quite well defined as to cost and construction year. The projects required for a route to handle its ultimate capacity and included in the "ten to 20 years" category (see Figure 3 for location) and the projects which have been identified in ad hoc studies on long range transportation needs and included in the "20 years and beyond" category (see Figure 4 for location) have very limited detailed information available.

North Bay Corridor

In this corridor, California Route 37, which runs between Interstate 80 in Solano County and Route 101 in Marin County, passes through the City of Vallejo and extends along the southern edge of the salt ponds, at the northern boundary of the San Pablo Bay National Wildlife Refuge. The corridor crosses tidal marshes and transects diked historic baylands. The existing Route 37 roadway is made up of two-lane, three-lane, and four-lane segments which transects diked historic baylands, lies partially between salt ponds and

tidal marsh, and crosses certain waterways at Petaluma River, Tolay Creek, and Sonoma Creek.

1. Route 37, Napa River Bridge to Highway 29, Solano County. Widen the two-lane road to four lanes with enough room in the median to provide two additional lanes, through White Slough, which would impact a large area of tidal marsh.

Acres of Fill	
Road	11.00 Acres--Certain Waterway (Tidal Marsh)
Bridge	
Cost	$39.6 Million
Construction Year	1991-92

CalTrans is exploring a revised proposal which would have a lower project cost and require less fill by making use of the existing roadway for a portion of the proposed freeway and by reducing the size of the interchange at Highway 29.

2. Route 37, 1.9 miles east of Skaggs Island Road to the Napa River Bridge, Solano County. Widen the two-lane road to three lanes with shoulders. If the road is widened on the north side through diked cultivated baylands, Bay fill would not be needed, but the project would still encroach into the shoreline band and public access may be affected. (Although this project is scheduled to be constructed this year, CalTrans has not yet submitted a complete permit application to the Commission.)

Acres of Fill	
Road	None
Bridge	None
Cost	$1.5 Million
Construction Year	1988-89

3. Route 37, 2.0 miles east of the Sonoma County line to 1.9 miles east of Skaggs Island Road, Solano County. Widen the two-lane road to three lanes with shoulders. Widening may be on the north side through salt ponds or on the south side through tidal marsh, or some combination of the two.

Acres of Fill	
Road	1.55 Acres--Bay (Tidal Marsh) or Salt Ponds
Bridge	
Cost	$0.6 Million
Construction Year	1998

4. Route 37, 1.9 miles east of Skaggs Island Road to the Napa River Bridge, Solano County. Further widen the two-lane road to four lanes. If the road is widened on the north side, diked baylands would be affected. Bay fill would not be needed, but the project would encroach into the shoreline band and public access may be affected.

Acres of Fill	
Road	None
Bridge	None
Cost	$10 Million
Construction Year	2000

5. Route 37, 2.0 miles east of the Sonoma County line to 1.9 miles east of Skaggs Island Road, Solano County. Further widen the two-lane road to four lanes. Widening may be on the north side through salt ponds or on the south side through tidal marsh, or some combination of the two. Public access may be affected.

Acres of Fill	
Road	3.49 Acres--Bay (Tidal Marsh) or Salt Ponds
Bridge	
Cost	Unknown
Construction Year	2000

6. Route 37, from Route 121 in Sonoma County to 2.0 miles east of the Sonoma County line, Sonoma and Solano Counties. Widen the two-lane road to four lanes. Widening may be on the north side through salt ponds or on the south side through tidal marsh, or some combination of the two.

Acres of Fill	
Road	5.67 Acres--Bay (Tidal Marsh) or Salt Ponds
Bridge	
Cost	Unknown
Construction Year	2013

7. Route 37, at the Sonoma/Solano County line, Sonoma and Solano Counties. Widen the two-lane Sonoma Creek Bridge to four lanes.

Acres of Fill	
Road	
Bridge	0.94 Acres--Bay
Cost	Unknown
Construction Year	2013

8. Route 37, at Tolay Creek, Sonoma County. Widen the two-lane Tolay Creek Bridge to four lanes.

Acres of Fill	
Road	
Bridge	0.22 Acres--Certain Waterway
Cost	Unknown
Construction Year	2013

Northwest Corridor

In this corridor, California Route 101 is the only commuter highway connecting the Marin and Sonoma County with San Francisco. The Marin/Sonoma County 101 Corridor Study recognizes the need for traffic improvement projects on Route 101, such as the addition of High Occupancy Vehicle lanes and auxiliary lanes between interchanges. The study specifically addressed transportation

systems, such as a busway or light rail in the Northwestern Pacific Railroad right-of-way and a two-lane arterial, east of Route 101 between the San Rafael Civic Center and Route 37. The Route 101 roadway is a six or eight-lane freeway, which passes on the west side of Hamilton Air Force Base, and crosses Richardson Bay and Corte Madera Creek.

9. Route 101, Greenbrae Interchange, Marin County. Modify the north-bound off and on ramps to provide a two-lane off ramp across Corte Madera Creek.

Acres of Fill	
Road	
Bridge	0.14 Acres--Certain Waterway
Cost	$5 Million
Construction Year	2003

10. Route 101, Greenbrae Interchange, Marin County. Widen the six-lane bridge over Corte Madera Creek to eight lanes.

Acres of Solid Fill	
Road	
Bridge	0.19 Acres--Certain Waterway
Cost	Unknown
Construction Year	2008

11. Route 101, Richardson Bay Bridge, Marin County. Widen the six-lane Richardson Bay Bridge to eight lanes.

Acres of Fill	
Road	
Bridge	0.66 Acres--Bay
Cost	Unknown
Construction Year	2008

12. Arterial Street East of Route 101, between Marin County Civic Center and Route 37, Marin County. Construct a new road east of the abandoned railroad right-of-way, from the civic center to Hamilton Air Force Base and

then parallel to Route 101 to the Route 37 intersection. The road would cross John F. McInnis County Park and Hamilton Air Force Base.

Acres of Fill	
Road	None
Bridge	None
Cost	$30 to 60 Million
Construction Year	2013

Peninsula Corridor

In this corridor, California Route 101 is the major commuter freeway connecting San Jose and other peninsula cities with San Francisco. Projects proposed in this corridor include expansion of Interstate Highways 280 and 230 in San Francisco, high occupancy vehicle and auxiliary lane projects on Route 101, bayside local projects parallel to Route 101, projects on the San Mateo Bridge and approaches, and work on the Dumbarton Bridge. A new South Bay Bridge between the Peninsula and the East Bay will also be studied. The Peninsula Route 101 Study conducted by the Metropolitan Transportation Commission addressed the use of auxiliary lanes as operational improvements to relieve congestion through bottleneck sections on Route 101, and suggested the use of parallel local arterials to accommodate local trips and relieve some congestion on Route 101.

Interstate 280. This six-lane freeway connects San Jose with San Francisco by way of the skyline ridge area of the peninsula. The route crosses Bay jurisdiction at China Basin and is adjacent to Bay jurisdiction, in the shoreline band, at Islais Creek.

13. Interstate 280, Islais Creek, San Francisco. Construct a northbound off-ramp and a southbound on-ramp. The southbound on-ramp would encroach into the shoreline band and public access may be affected.

Acres of Fill	
Road	None
Bridge	None
Cost	$13 Million
Construction Year	1992-93

14. Interstate 280, China Basin, San Francisco. Provide new ramps to Sixth Street by constructing a four-lane ramp with shoulders and a 50-foot-wide city street across China Basin. Both roads require Bay fill and encroach into the shoreline band on both sides of China Basin which may affect public access.

Acres of Fill	
Road	
Bridge	0.64 Acres--Bay
Cost	$27 Million
Construction Year	1992-93

California Route 92. The existing road is a four and six-lane highway, bridge, and bridge approaches connecting Half Moon Bay with Foster City, crossing the Bay to Interstate 880 (Nimitz Freeway) at Hayward. The route is a heavily travelled commuter link between the East Bay and the Peninsula.

15. Route 92, San Mateo Bridge, San Mateo and Alameda Counties. Widen the four-lane low-level trestle (bridge) to six lanes with shoulders.

Acres of Fill	
Road	
Bridge	33.70 Acres--Bay
Cost	$87 Million
Construction Year	1991-92

16. Route 92, Toll Plaza, Alameda County. Widen the toll booth area to accommodate five more booths.

Acres of Fill	
Road	
Bridge	0.92 Acres--Bay
Cost	$4 Million
Construction Year	1989

Route 101. The existing road is a six or eight-lane freeway, which passes west of San Francisco International Airport, Moffitt NAS, waterfront parks at Candlestick, Brisbane, Burlingame, Coyote Point, and Palo Alto, and connects San Jose with San Francisco. This route is built to its ultimate width except for auxiliary lanes between interchanges at various locations.

17. Route 101, Third Avenue to Broadway, San Mateo County. Add southbound and northbound auxiliary lanes. Because the west side of the freeway is developed, CalTrans prefers to widen the highway 60 feet on the east side, which would require Bay fill and affect public access.

Acres of Fill	
Road	8.26 Acres--Bay
Bridge	
Cost	$30 Million
Construction Year	1998

18. Route 101, East Hillsdale Boulevard to Ralston Avenue, San Mateo County. Add an auxiliary northbound lane between interchanges. The widening would encroach into a tidal marsh at the end of Belmont Slough, require Bay fill, and affect public access.

Acres of Fill	
Road	0.69 Acres--Bay (Tidal Marsh)
Bridge	
Cost	Unknown
Construction Year	1998

19. California Route 101, Holly Street to Whipple Avenue, San Mateo County. Add a northbound auxiliary lane encroaching into a tidal marsh, in the vicinity of Smith Slough, requiring Bay fill and affecting public access.

Acres of Fill	
Road	1.15 Acres--Bay (Tidal Marsh)
Bridge	
Cost	Unknown
Construction Year	1998

Route 84. The existing roadway is a two and four lane highway, bridge, and bridge approaches, except for the gap between Route 101 at Woodside Road and the existing Bayfront Expressway at Marsh Road, crossing the Bay to Interstate 880 (Nimitz Freeway) at Newark.

20. Route 84, Woodside Road to Marsh Road, San Mateo County. Construct a new four-lane road through 4,000 feet of salt pond, southeast of Woodside Road.

Acres of Fill	
Road	6.61 Acres--Salt Pond
Bridge	
Cost	$16 Million
Construction Year	1998

21. Route 84, Willow Road to the Dumbarton Bridge, San Mateo County. Widen the two-lane bridge approach to four lanes across 5,320 feet of salt pond between University Avenue and the Dumbarton Bridge.

Acres of Fill	
Road	4.88 Acres--Salt Pond
Bridge	
Cost	$25 Million
Construction Year	1998

22. Route 84, Woodside Road to Marsh Road, San Mateo County. Further widen the four-lane road to six lanes through 4,000 feet of salt pond, southeast of Woodside Road.

Acres of Fill	
Road	2.75 Acres--Salt Pond
Bridge	
Cost	Unknown
Construction Year	2013

23. Route 84, Willow Road to the Dumbarton Bridge, San Mateo County. Further widen the four-lane bridge approach to six lanes, through salt ponds for 5,320 feet between University Avenue and the Dumbarton Bridge.

Acres of Fill	
Road	3.66 Acres--Salt Pond
Bridge	
Cost	Unknown
Construction Year	2013

24. Route 84, the Dumbarton Bridge, San Mateo and Alameda Counties. Widen the four-lane bridge with a bikeway to six lanes with consideration for continuation of the bikeway from the San Mateo County shoreline to the Alameda County shoreline.

Acres of Fill	
Road	
Bridge	11.93 Acres--Bay
Cost	Unknown
Construction Year	2013

Route 230. Route 230 would run from Route 101 in San Mateo County to Interstate 280 near Islais Creek in San Francisco to serve as a freeway approach to the Southern Crossing Bridge. Plans for construction of this

route were suspended when the Southern Crossing project was rejected by Bay Area voters in 1972.

25. Bayside Local Route Parallel to Route 101 - Third Avenue from Route 92 to the San Francisco International Airport, San Mateo County. Construct a new four-lane arterial with shoulders, passing through waterfront parks at Coyote Point and Anza Lagoon, and crossing a portion of the Bay at Anza Lagoon. Public access may be affected.

Acres of Fill	
Road	
Bridge	0.16 Acres--Bay
Cost	Unknown
Construction Year	2013

26. Bayside Local Route Parallel to Route 101 - Extension of Edgewater Drive Across Belmont Slough to Marine World Parkway, San Mateo County. Construct a new four-lane arterial with shoulders across Belmont Slough. Public access may affected.

Acres of Fill	
Road	
Bridge	0.48 Acres--Bay
Cost	Unknown
Construction Year	2013

27. South Bay Bridge. Construct a new six-lane bridge with shoulders and provision for BART. Two routes have been suggested for the bridge: (a) from the San Mateo County shoreline south of San Francisco to the Alameda County shoreline in line with the westerly extension of the Highway 580; and (b) connecting the San Francisco and Oakland Airports.

Acres of Fill	
Road	40.00 Acres--Toll Plaza
Bridge	160.00 Acres--Bay
Cost	Unknown
Construction Year	2013

East Bay Corridor

In this corridor, Interstate 880 is the major commuter freeway connecting San Jose and the East Bay cities with Oakland, and Interstate 80 is the major commuter freeway connecting Oakland and Richmond with Vallejo and Sacramento. Both freeways serve as approaches to the Bay Bridge. There are no projects on Interstate 880 that impact the Bay, but the corridor does include projects along Interstate 80, Interstate 580 and the North Richmond By-pass proposed in the Metropolitan Transportation Commission's I-80 Corridor Study. Other projects in the corridor in the proximity of the San Leandro Bay are included in the Nimitz-Doolittle (NIMDOTS) Transportation Corridor Study.

Interstate 80. The existing road is six or eight lanes on the Bay shoreline between the Bay Bridge and the Interstate 580 Interchange at Albany. It connects San Francisco and Oakland with Richmond, Vallejo, and Sacramento.

28. Interstate 80, West Grand to 0.3 mile south of Ashby Avenue, Alameda County. Add a high occupancy vehicle lane, an auxiliary lane, and reconstruct Powell Street Interchange. Public access may be affected. (Although this project was scheduled to be constructed this year, the permit application has been withdrawn.)

Acres of Fill	
Road	0.29 Acres--Bay
Bridge	0.13 Acres--Bay
Cost	$13.2 Million
Construction Year	1988-89

29. Interstate 80/580, North City Limit of Berkeley to Bayview Avenue, Alameda County. Reconstruct the Interstate 80/580 Buchanan Street Interchange. (Although this project is scheduled to be constructed this year, CalTrans has not yet submitted a complete permit application to the Commission.)

Acres of Fill	
Road	0.14 Acres--Bay
Bridge	
Cost	$33 Million
Construction Year	1989

30. Interstate 80, South of Ashby Avenue to University Avenue, Alameda County. Add a high occupancy vehicle lane and two auxiliary lanes. Public access may be affected.

Acres of Fill	
Road	0.06 acres--Bay
Bridge	
Cost	Unknown
Construction Year	1998

Interstate 580. The existing roadway is a six-lane freeway on the East Bay shoreline, which connects Albany with Richmond, crosses the Bay on the Richmond/San Rafael Bridge and intersects Highway 101 at San Rafael.

31. Interstate 580, Central Avenue Interchange, Contra Costa County. Reconstruct the interchange and replace a structure. (The project has been approved by the Commission and will include a public access path.)

Acres of Fill	
Road	0.10 Acres--Bay
Bridge	0.05 Acres--Bay
Cost	$15.1 Million
Construction Year	1989

California Route 93. This proposed route would connect the Richmond/San Rafael Bridge at Richmond to Interstate 80 in the Hilltop area. It is also known as the North Richmond By-pass.

32. Route 93, North Richmond By-pass from the Richmond/San Rafael Bridge, through North Richmond to Interstate 80 at Hilltop, Contra Costa County. Construct a new four-lane road. Depending on the alignment, a tidal marsh may be impacted between Paar Boulevard and Great Highway.

Acres of Fill	
Road	1.61 Acres--Bay (Tidal Marsh)
Bridge	
Cost	$50 Million plus
Construction Year	1998

33. Route 61, Davis Street to Webster Street in the City of Alameda, Alameda County. Widen the four-lane road, between Swan Way and Island Drive, to six lanes. Public access may be affected.

Acres of Fill	
Road	0.55 Acres--Bay
Bridge	
Cost	Unknown
Construction Year	1998

34. Route 61, Route 84 to Davis Street, Alameda County. Construct a four-lane road between Route 84 and San Lorenzo and a six-lane road between San Lorenzo and Davis Street in Alameda, passing through salt ponds and waterfront parks at San Leandro, Davis Street, Coyote Hills, and bridging over Coyote Hills Slough between Routes 92 and 84.

Acres of Fill	
Road	31.45 Acres--Salt Pond
Bridge	1.15 Acres--Bay
Cost	Unknown
Construction Year	2008

CalTrans has indicated it will attempt to reroute the highway to reduce the need for fill in salt ponds.

35. Broadway Extension linking Bay Farm Island with Alameda Island, Alameda County. Widen the two-lane roadway to four lanes between Interstate 880/Fruitvale interchange, along Tilden Way, Park Street, across the entrance channel of San Leandro Bay to Auginbaugh Way on Bay Farm Island. The project would require Bay fill in the Oakland Inner Harbor Channel and at the entrance channel of San Leandro Bay.

Acres of Fill	
Road	
Bridge	3.58 Acres--Bay
Cost	Unknown
Construction Year	2013

36. Sixty-Sixth Avenue Extension - From Interstate 880 across San Leandro Bay to Harbor Bay Parkway on Bay Farm Island, Alameda County. Construct a four-lane bridge across San Leandro Bay.

Acres of Fill	
Road	
Bridge	6.61 Acres--Bay
Cost	Unknown
Construction Year	2013

Northeast Corridor

In this corridor, the major freeways are Interstate 80 connecting Oakland and Richmond with Vallejo and Sacramento crossing the Carquinez Strait at Vallejo, and Interstate 680 connecting Walnut Creek, Concord and Martinez with Benicia and Sacramento, crossing the Carquinez Strait at Martinez-Benicia.

37. Interstate 680, Benicia Martinez Bridge Widening, Contra Costa and Solano Counties. Widen the existing four-lane bridge to six lanes. (The Commission has approved this project and required that public access for pedestrians and bicyclists to cross the Strait be provided as part of the bridge widening.)

Acres of Fill	
Road	
Bridge	1.20 Acres--Bay
Cost	$31 Million
Construction Year	1989

38. Interstate 680, Benicia-Martinez Bridge, Contra Costa and Solano Counties. Construct a new five-lane bridge to be used in conjunction with the existing span. Public access may be affected.

Acres of Fill	
Road	
Bridge	10.33 Acres--Bay
Cost	$266 Million
Construction Year	1992

39. Interstate 680, Route 4 Interchange to Marina Vista, Contra Costa County. Widen the four-lane road to eight lanes with auxiliary lanes. The widening would probably be accommodated on the west side of Interstate 680 because state law prohibits projects from resulting in the net loss of wetlands.

Acres of Fill	
Road	None
Bridge	None
Cost	$45 Million
Construction Year	1998

40. Interstate 680, From Benicia to Cordelia, Solano County. Widen the four-lane road to ten lanes, through five miles of Suisun Marsh secondary management area.

Area of Fill	
Road	None
Bridge	None
Cost	Unknown
Construction Year	1993

Route 12. The existing road is two lanes which connects Fairfield with Rio Vista passing north of the Suisun Marsh primary management area.

41. Route 12 in Solano County--Marina Boulevard to Scandia Road. Widen the two-lane road to four lanes, crossing through the northern edge of the Suisun Marsh primary management area.

Acres of Fill	
Road	None
Bridge	None
Cost	$11.7 Million
Construction Year	1991-92

Interstate 80. The existing road is six or eight lanes which connects Oakland and Richmond with Vallejo and Sacramento, crossing Carquinez Strait between Crockett and Vallejo.

42. Interstate 80, Carquinez Bridge, Contra Costa and Solano Counties. Construct a new five-lane bridge replacing the existing westbound span. Public access may be affected.

Acres of Fill	
Road	
Bridge	6.20 Acres--Bay
Cost	$138 Million
Construction Year	2008

PRESENT TO FIVE YEAR PROJECTS

PROJECT	ROUTE	LOCATION	TYPE OF WORK	ACRES OF ROAD	ACRES OF BAY FILL BRIDGES	OTHERS IMPACTS	CONSTRUCTION YEAR	COST OF PROJECT (In Millions)
(1)	37	Napa River Bridge to Route 29	Widen Highway	11.00			1991-92	$ 39.6
(2)	37	Skaggs Island Road	Widen Highway			Fill in Shoreline Band	1988-89	$ 1.5
(13)	280	Islais Creek	New Ramps			Fill in Shoreline Band	1992-93	$ 13.0
(14)	280	China Basin	New Ramps		0.64	Public Access	1992-92	$ 27.0
(15)	92	San Bateo Bridge	Widen Bridge		33.70		1991-92	$ 87.0
(16)	92	Toll Plaza Alameda County	Add Booths		0.92		1989	$ 4.0
(28)	80	West Grand to Ashby Avenue	Widen Highway	0.29	0.13	Public Access	1988-1989	$ 13.2
(29)	80/580	North Berkeley City Limit	Reconstruct Interchange	0.14			1989	$ 33.0
(31)	580	Central Avenue Interchange	Replace Structure	0.10	0.05		1989	$ 5.4
(37)	680	Benicia Bridge	Widen Bridge		1.20	Public Access	1989	$ 31.0
(38)	680	Benicia Bridge	New Bridge		10.33		1993	$ 266.0
(41)	12	Marina Boulevard to Scandia	Widen Highway			Fill in Suisun Marsh	1991-92	$ 11.7

NOTE: See Figure 1 for Location

FIVE TO TEN YEAR PROJECTS

PROJECT	ROUTE	LOCATION	TYPE OF WORK	ACRES OF ROAD	ACRES OF BAY FILL BRIDGES	OTHERS IMPACTS	CONSTRUCTION YEAR	COST OF PROJECT (In Millions)
(3)	37	Skaggs Island Road 3rd Avenue to	Widen Highway	1.55 (Salt Pond)			1988	$0.6
(17)	101	Broadway	Widen Highway	8.26		Public Access	1998	$30.0
(18)	101	East Hillsdale to Ralston	Widen Highway	0.69		Public Access	1998	
(19)	101	Holly to Whipple	Widen Highway	1.15		Public Access	1998	
(20)	84	Woodside to Marsh	New Highway	6.61 (Salt Pond			1998	$16.0
(21)	84	Willow Road to Dumbarton Bridge	Widen Highway	4.88 (Salt Pond)			1998	$25.0
(30)	80	Asby to University Avenue	Widen Highway	0.06		Public Access	1998	
(32)	93	North Richmond	New Highway	1.61		Tidal Marsh	1998	$50.0
(33)	61	Davis to Webster	Widen Highway	0.55		Public Access	1998	
(39)	680	Route 4 Interchange to Marina Village	Widen Highway				1998	$45.0
(40)	680	Benicia to Cordelia	Widen Highway			Fill in Suisun Marsh	1993	

NOTE: See Figure 2 for location

PROJECT	ROUTE	LOCATION	TYPE OF WORK	ACRES OF ROAD	ACRES OF BAY FILL BRIDGES	OTHERS IMPACTS	CONSTRUCTION YEAR	COST OF PROJECT (In Millions)
(4)	37	Skaggs Island road to Napa River Bridge	Widen Highway			Fill in shoreline Band	2000	$10.0
(5)	37	Skaggs Island Road	Widen Highway	3.49 (Salt Pond)		Public Access	2000	
(9)	101	Greenbrae Interchange	Modify Ramps		0.14		2003	$5.0
(10)	101	Greenbrae Interchange	Widen Bridge		0.19		2008	
(11)	101	Richardson Bay Bridge	Widen Highway		0.66		2008	
(34)	61	Route 84 to Davis	New Highway	31.45 (Salt Pond)	1.15		2008	
(42)	80	Carquinez Bridge	New Bridge		5.20	Fill in shoreline Band	2008	$138.0

NOTE: See Figure 3 for Location

PROJECT	ROUTE	LOCATION	TYPE OF WORK	ACRES OF ROAD	ACRES OF BAY FILL BRIDGES	OTHERS IMPACTS	CONSTRUCTION YEAR	COST OF PROJECT
(6)	37	Routy 121 to 2 Miles East of Sonoma C/L	Widen Highway	5.67 (Salt Pond)			2013	
(7)	37	Solano	Widen Bridge		0.94		2013	
(8)	37	Tolay Creek	Widen Bridge		0.22		2013	
(12)	Local	E of Routy 101 from Marin County Civic Ctr to Routy 37	New Highway			Hamilton Field and County Park	2013	
(22)	84	Woodside to Marsh	Widen Highway	2.75 (Salt Pond)			2013	
(24)	84	Willow Road-Dumbarton Br.	Widen Highway	3.66 (Salt Pond			2013	
(25)	Local	3rd Avenue from Routy 92 to S.F. Int. Airport	New Highway		0.16	Bayside Park Waterfront Park	2013	
(26)	Local	Ext of Edgewater Dr. Across belmont Slough	New Bridge		0.48		2013	
(27)		New Southern Crossing	New Bridge	40.00	160.00		2013	
(35)	Local	Broadway Ext to BFI	New Bridge		3.58		2013	
(36)	Local	66th Ave. Extension	New Highway		6.61		2013	

NOTE: See Figure 4 for Location

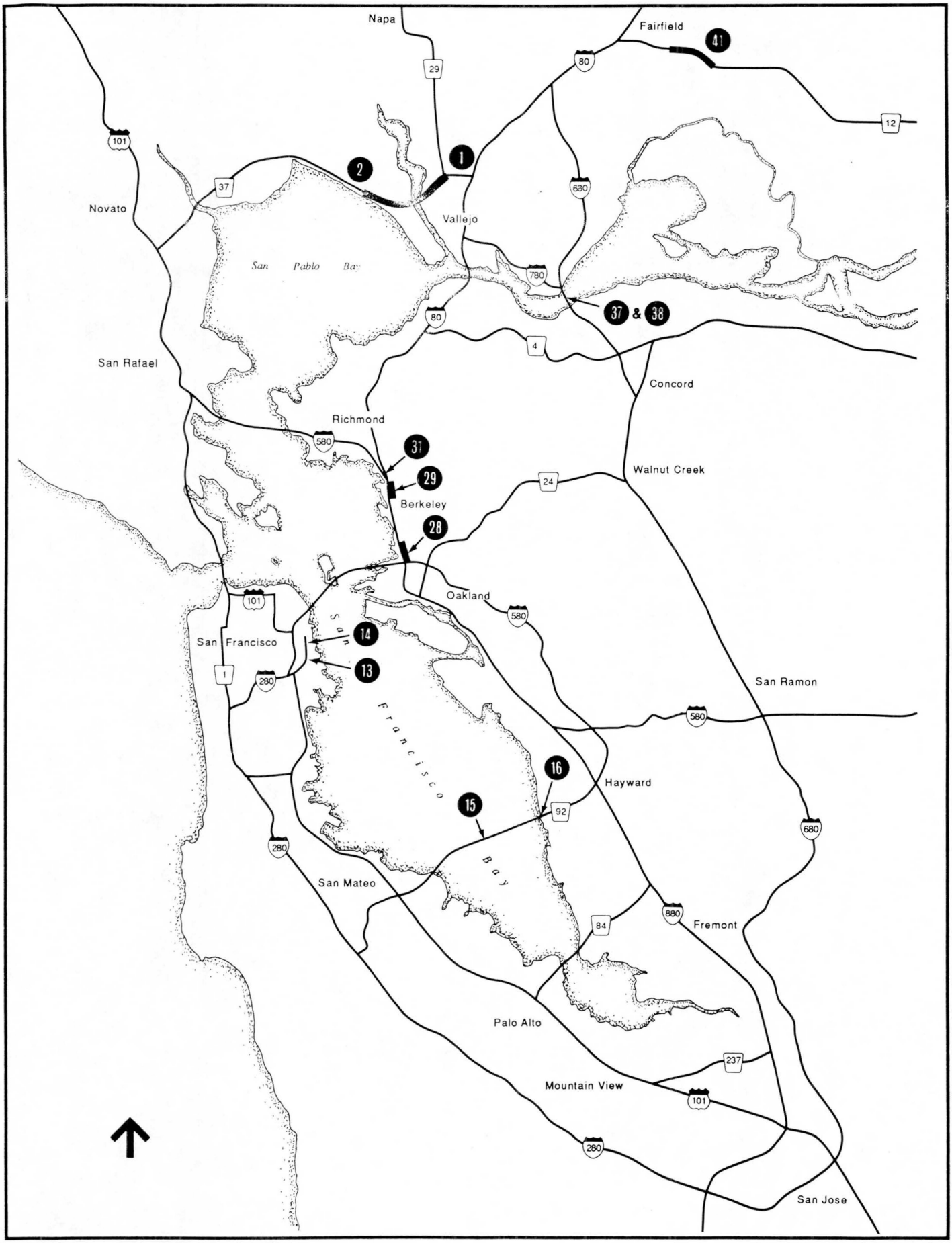

FIGURE 1

Location of Present to Five Year Highway and Bridge Projects

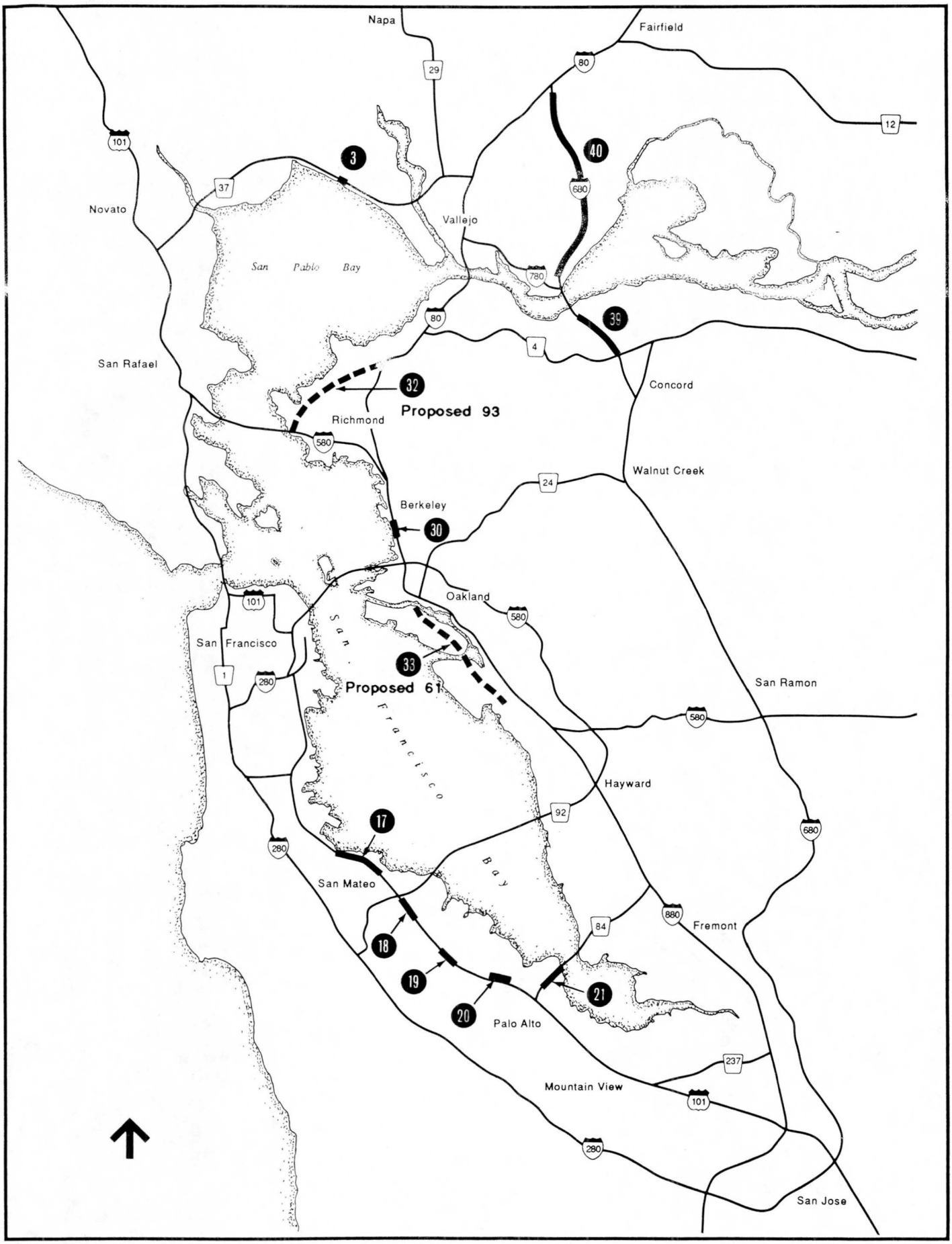

FIGURE 2

Location of Five to Ten Year Highway and Bridge Projects

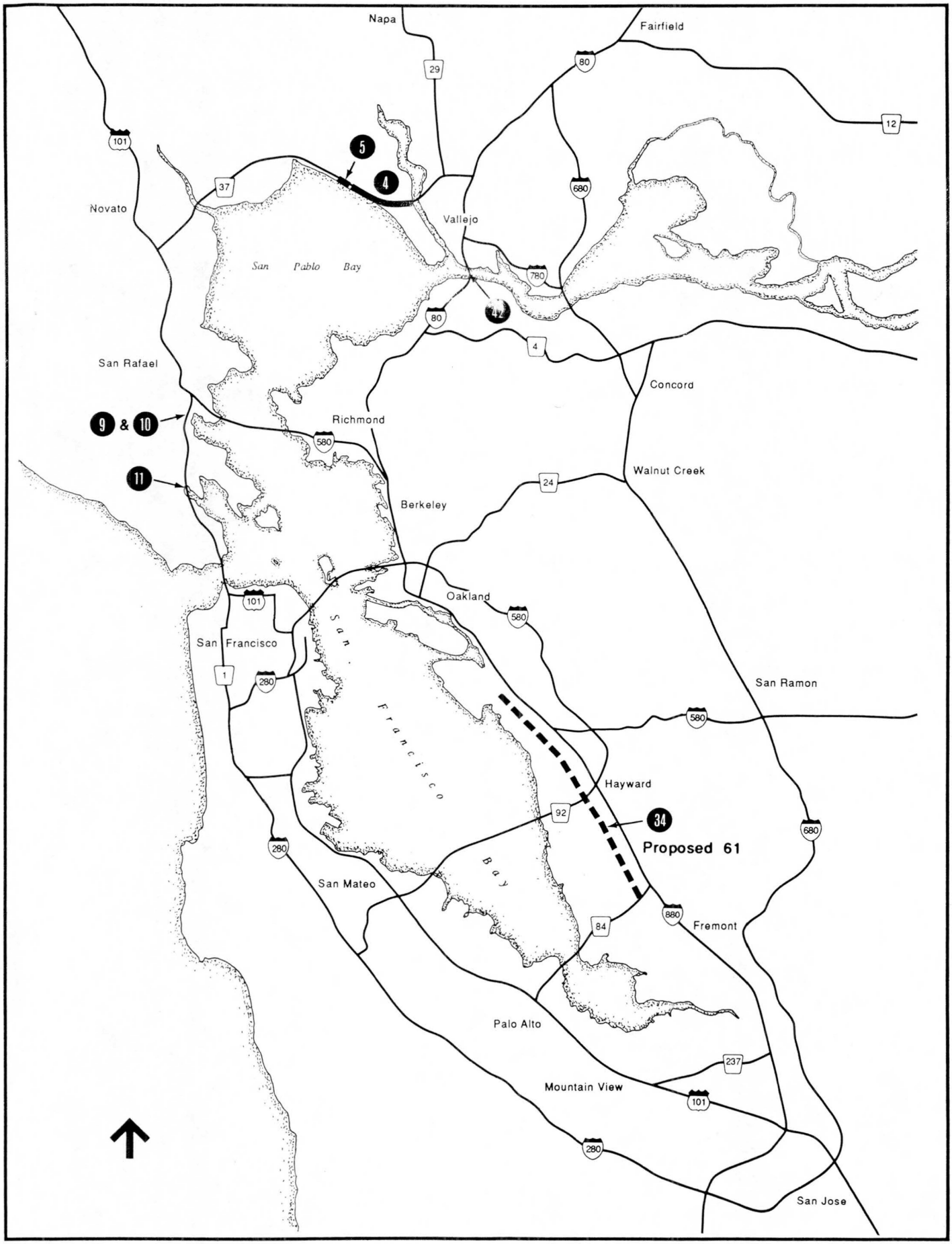

FIGURE 3

Location of Ten to Twenty Year Highway and Bridge Projects

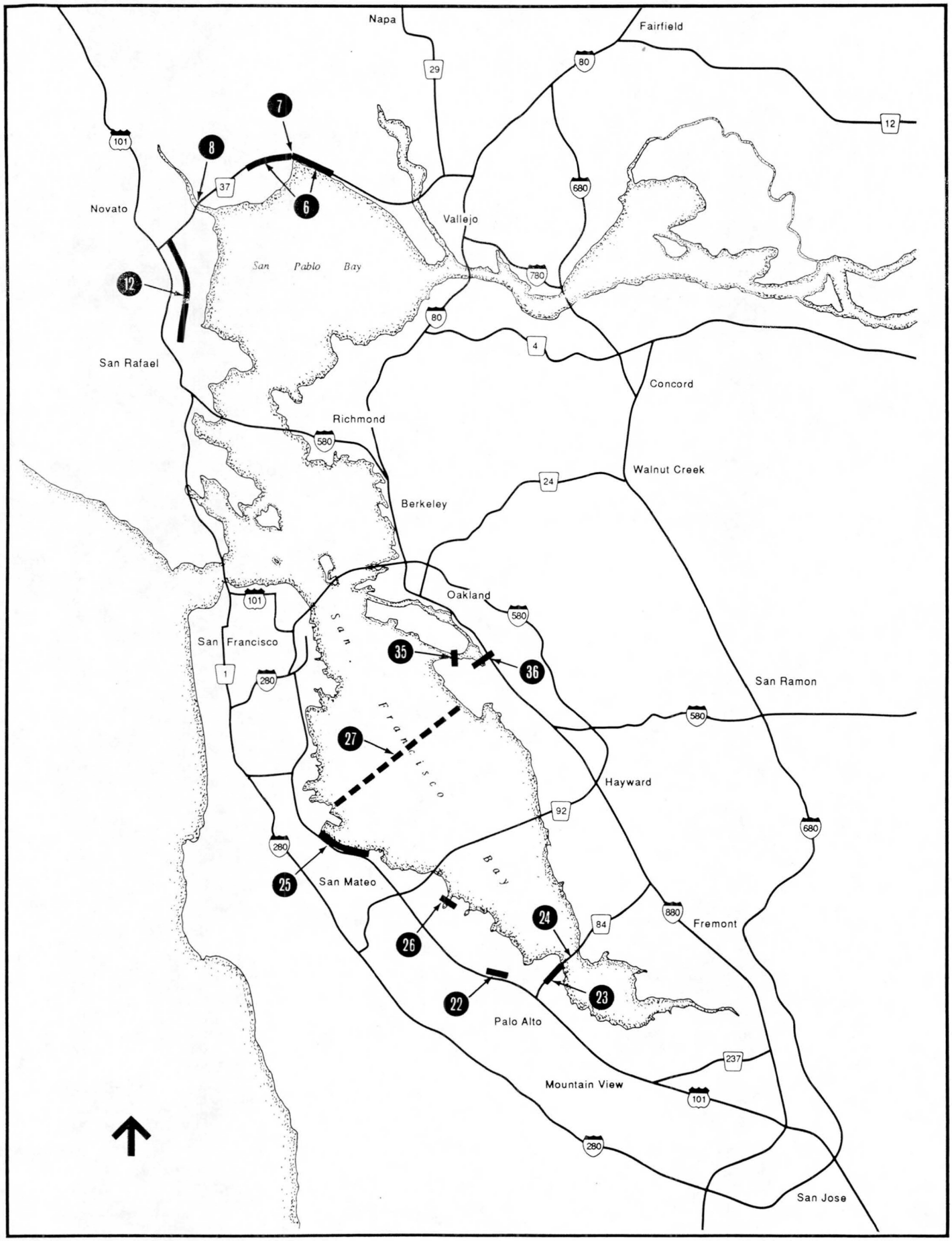

FIGURE 4

Location of Twenty Year and Beyond Highway and Bridge Projects

APPENDIX A

Transportation

Findings and Policies Concerning Transportation On and Around the Bay

Findings

a. At present, there is no regional coordination of all the means of moving people and goods that make up the total transportation system of the Bay Area. Transportation planning for the Bay Area is divided among highway agencies, transit agencies, planning agencies, and regulatory agencies. The only comprehensive transportation planning agency in the Bay region is the Bay Area Transportation Study Commission, which was created by the State Legislature and which will present its transportation plans in early 1969.

b. Primary emphasis in recent years has been placed on freeways, which in some instances have been built on fill in the Bay because acceptable routes could not be found ashore. Little attention has been given in recent years to using the waters of the Bay for modern boat transportation.

c. Massive use of the automobile during a time of rapid population growth in the Bay Area endangers the environment both because of the air pollutants emitted by automobiles and because of the space required by automobiles for roadways and for parking.

d. Primary reliance on the automobile for surface transportation in the Bay Area means further pressures to use the Bay as a route for future freeways. Therefore, a primary goal of transportation planning, from the point of view of preserving and properly using the Bay, should be substantial reduction in dependence on the automobile. While the private car will still be needed and used for many types of travel, the goal should be development of new systems of transportation that can carry large volumes of people and goods without damaging the environment of the Bay Area.

Policies

1. The Bay represents a great but, at present, little-used resource for transportation within the region. New types of faster barges may be able to move trucks and freight from point to point within the region at low cost and without adding to surface congestion. Also, a system of modern ferries (capable of high speeds with minimum noise and waves) may be able to provide service between major traffic generators (e.g., between downtowns, or between downtowns and airports) and eventually to provide scheduled service from one end of the Bay to the other for both commuting and pleasure use. The Bay Plan maps indicate possible sites for commuter ferry terminals and shallow-draft ports.
2. Because of the continuing vulnerability of the Bay to filling for freeways, an effective program should be created to develop, test, and inaugurate new methods of transportation within the Bay Area. This

should be undertaken by a regional transportation agency, preferably one that is part of a limited regional government.

3. If any additional freeway or bridge route is proposed in or across the Bay other than those indicated on the Bay Plan maps, adequate research and testing should determine whether new methods of transportation could overcome the particular congestion problem without a route in the Bay and, if not, whether a tunnel beneath the Bay is at all feasible.

4. If a route must be located over the Bay, the following provisions should apply:

   a. The freeway or other crossing should be placed on bridge-like structures, not on fill.

   b. Structures should provide adequate clearance for commercial ships, Navy ships, and pleasure boats to have uninterrupted passage at all times.

   c. Toll plazas, service yards, or other ancillary features should be located on new fill only if there is no feasible alternative.

   d. To provide maximum ultimate capacity on any new major facility that is allowed over the Bay (and thus to minimize the number that might have to be allowed in the Bay), the design of the structures should anticipate future mass transit facilities (unless they are adequately paralleled by such facilities) and subsequent installation of automatic power and guidance elements for vehicles.

STATE OF CALIFORNIA GEORGE DEUKMEJIAN, *Governor*

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION
THIRTY VAN NESS AVENUE, SUITE 2011
SAN FRANCISCO, CA 94102-6080
PHONE: (415) 557-3686

APPENDIX B

March 4, 1983

TO: San Francisco Peninsula Mayors, City Managers, Planning Directors, Public Works Directors, and San Mateo County Board of Supervisors

Recently, the San Francisco Bay Conservation and Development Commission and the Metropolitan Transportation Commission completed a preliminary assessment of the cumulative traffic impacts on Highway 101 on the San Francisco Peninsula brought on by projects proposed for construction along that route. As you may know, a substantial amount of development has either recently received government approval or is being proposed for construction within the next few years along Highway 101 on the Peninsula. The cumulative effect of the individual developments will have a significant impact on the regional Peninsula transportation system. Although the local transportation impacts of the new developments have been analyzed in project environmental documents, no assessment of the cumulative impacts of the developments on the regional transportation system had been developed. For that reason, BCDC, which is responsible for protecting San Francisco Bay from unnecessary fill, and MTC, which is responsible for Bay Area regional transportation planning, prepared the preliminary traffic assessment to understand better the magnitude of travel demand brought on by the new development, the cumulative impacts of the development on the regional transportation system, and the effect, if any, the impacts might have on each agency's statutory responsibilities.

Draft copies of the assessment "Travel Impacts of Recent and Proposed Development Along Route 101" were mailed to each Peninsula local government along Highway 101 in September, 1982 and the final copy was mailed in early December, 1982. Briefly, BCDC's conclusions from the assessment were:

1. Over 20,000,000 square feet of retail, industrial and office space, over 6,000 additional hotel rooms, and some 7,300 new dwelling units could be constructed along Highway 101 within the next decade if all proposed construction projects were completed.

2. All of the new development contemplates direct access to Highway 101 and the primary mode of transport to and from the developments would be by private automobile.

3. Highway 101 at present is heavily used throughout the day and operates near capacity in both the peak morning period (7:00 a.m. to 9:00 a.m.) and the afternoon and early evening period (2:00 p.m. to 7:00 p.m.). It operates at or near capacity during the evening peak hour (4:00 p.m. to 5:00 p.m.).

4. Estimates of travel generated by the new development along Highway 101 indicate a significant increase in highway use in the future. Over 60,000 estimated automobile trips would be anticipated if all the new developments were realized — an increase of almost 30 percent of current peak hour trips. The majority of the increased trips would be by private automobile and up to 80 percent of these trips would use Highway 101 for at least some portion of the trip.

5. Any additional traffic use of Highway 101 will result in worsening of service of the freeway, its interchanges, and access to the local street system. As the freeway becomes more congested, drivers will seek out alternate routes on major arterials and local streets. This may increase pressure to widen Highway 101 or possibly construct an alternate roadway system bayward of the freeway.

6. Transportation mitigation measures proposed by the developments to lessen project impacts on the Highway 101 corridor are often very general, ranging from "encourage ride sharing" to "provide bicycle paths." Other mitigation proposals such as "widen Highway 101" or provide "shuttle service" to the Caltrain do not include specific implementation methods such as funding and present an overly optimistic view of solving the significant traffic impacts, particularly when some mitigation proposals may not be achievable.

We are particularly concerned about proposals to widen Highway 101 to relieve traffic congestion because Bay fill would most likely be required at certain locations along the route. A further BCDC concern is potential pressure for a reliever roadway in the Bay, Bay marshes, or salt ponds to accommodate traffic demand, particularly if it becomes infeasible to widen Highway 101 or if mass transit is unable to serve traffic needs.

Neither the widening of Highway 101 nor the construction of an alternative roadway would be consistent with the BCDC's San Francisco Bay Plan or the BCDC law unless it could be clearly shown that no reasonable alternative exists. Furthermore, the Commission believes that to protect the Bay fully from unnecessary fill, the Commission has to consider not only reasonable alternatives that may be available when and if an application is submitted in the future, but also reasonable alternatives that would be available if steps were taken now to identify and implement them. Otherwise development decisions and the passage of time may foreclose alternatives that might reduce or eliminate the need for fill such as reduction of proposed employment and housing densities.

This position is based upon the findings and policies of the Commission's San Francisco Bay Plan. In preparing the Bay Plan the Commission realized the continuing vulnerability of the Bay for filling for freeways. The Bay Plan policies on Transportation require that if any freeway is proposed in the Bay (including Highway 101 widening) that "adequate research and testing should determine whether new methods of transportation could overcome the particular congestion problem without a route in the Bay." Further, the Bay Plan recommends that the regional transportation agency, MTC, analyze new transportation methods as alternates to additional freeways that would require Bay fill.

The Peninsula Transit Alternatives Project (PENTAP) Committee, an advisory committee to MTC, is undertaking a study to address transportation issues in the Highway 101 corridor. In cooperation with local government, transportation agencies, BCDC, and the private sector, the study will develop: (1) a strategy for coordinating transportation measures along Highway 101; (2) an operation strategy for improving Highway 101; and (3) a long-range strategy for improving transportation in the Highway 101 corridor.

The Bay Commission strongly believes that the study proposed by MTC is a positive step in the process of managing the future traffic impacts in the Highway 101 corridor and also eliminating or minimizing possible need for Bay fill to accommodate increased traffic demand and therefore would urge each local agency to participate.

Very truly yours,

MICHAEL B. WILMAR
Executive Director

MBW/lg

STATE OF CALIFORNIA
GEORGE DEUKMEJIAN, *Governor*

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION
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PHONE: (415) 557-3686

August 8, 1986

Mr. Edward Woods
Regional Federal Highway Administrator
Federal Highway Administration
211 Main Street, Room 1100
San Francisco, CA 94105

Dear Mr. Woods:

We have learned that the Federal Highway Administration may be providing several million dollars to the California Department of Transportation to evaluate an expansion of the freeway network along the eastern shoreline of San Francisco Bay. We believe that a high quality transportation system is essential to the future of the Bay Area. But expansion of the East Bay freeway network could very well require that some additional fill be placed in either San Francisco Bay, adjacent wetland, or salt ponds, all of which require permits from our Commission.

Prior to the establishment of our Commission in 1965, extensive fill was placed in the Bay to accommodate freeways, which in turn blocked easy public access to the shoreline. In the past 21 years, many millions of dollars in public and private funds have been invested in acquiring and developing parks, open space, public access areas, and attractive shoreline businesses. These funds would be largely wasted if these improved shoreline areas are paved for freeway expansion or are cut off from the shoreline by new freeway routes. To avoid this tragedy, we believe that any evaluation you fund must be carried out in compliance with legal requirements respecting the Bay and should investigate the full range of alternatives for dealing with the current and projected traffic congestion limited to considering freeway expansion alone.

As you may know, Section 307(d) of the federal Coastal Zone Management Act (CZMA) requires that:

> State and local governments submitting applications for Federal assistance under...Federal programs affecting the coastal zone shall indicate the views of the appropriate state...agency as to the relationship of such activities to the approved management program for the coastal zone. ...Federal agencies shall not approve proposed projects that are inconsistent with a coastal state's management program, except upon a finding by the Secretary [of Commerce] that such project is consistent with the purposes of the title or necessary in the interest of national security.

To ensure that the planning carried out with your funds will fully comply with the requirements of the CZMA, it is important for you to consider how these funds can be used in a manner consistent with the Commission's federally-approved coastal management program for San Francisco Bay.

Under the McAteer-Petris Act--the Commission's enabling legislation--bridges and causeways, as well as solid material, are regarded as "fill". The Commission can issue fill permits only for "water-oriented" uses, or in the case of small amounts of fill, to improve shoreline appearance or to increase public access to the Bay. A freeway is not considered to be a water-oriented use; bridges and causeways are water-oriented uses. Therefore, the Commission cannot authorize for the freeway in the Bay unless it is on a bridge or causeway and meets the San Francisco Bay Plan transportation policies.

The Bay Plan policies prohibit any form of fill in the Bay for new freeways unless the Commission finds that no reasonable alternative exists for solving the traffic problem without Bay fill. The Bay Plan policies also require that if any freeway is proposed in the Bay "adequate research and testing should [be undertaken to] determine whether new methods of transportation could overcome the particular congestion problem without a route in the Bay." To ensure that this requirement is carried out properly, the Commission will consider both those alternatives that may be available in the future when a permit application is submitted and also those alternatives that would be available in the future if steps were taken now to identify and implement them. It is prudent to face this requirement now by coordinating the efforts of all relevant government agencies, to determine which transportation alternative should be pursued.

To address these policies in the Commission's coastal management program, any federally financed investigation of the expansion of the East Bay freeway system should include an evaluation of alternatives to freeway expansion. Specifically, the study should evaluate expanding transit services and limiting development as a means of alleviating traffic congestion. This broad scope is essential both so that the federal funds are used properly and so that the study provides the Commission with the information it needs to consider any proposals for freeway causeways or bridges that may result from the study. Finally, we strongly advise you not to make any funds available to

investigate freeway expansion proposals that would require the placement of solid fill in San Francisco Bay. Since both California law and the federally approved coastal management program for San Francisco Bay prohibit solid fill for freeways, it would be inappropriate to expend federal funds to investigate placing solid fill for freeway expansion.

We appreciate this opportunity to make our views known.

Very truly yours,

ROBERT R. TUFTS
Chairman

cc: Chairman, California Transportation Commission
Chairman, Metropolitan Transportation Commission

STATE OF CALIFORNIA GEORGE DEUKMEJIAN, *Governor*

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION
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OPEN LETTER TO EAST BAY LOCAL GOVERNMENTS

This is to advise you of the Commission's interest and concern regarding various planning efforts being undertaken to address traffic problems along the eastern shoreline of San Francisco Bay. Among these planning projects are the California Department of Transportation's consideration of extending Route 61 between Albany and Newark, the Nimitz-Doolittle (NIMDOTS) Transportation Corridor Study, and a broad evaluation of East Bay freeway expansion funded by the Federal Highway Administration.

The Commission believes that a high quality transportation system is essential to the future of the Bay Area. Some of the alternatives being investigated for dealing with traffic congestion in the East Bay would, however, require filling portions of either San Francisco Bay, adjacent wetlands, or salt ponds, and thus would require permits from our Commission.

Under the McAteer-Petris Act--the Commission's enabling legislation—bridges and causeways, as well as solid material, are regarded as "fill." The Commission can issue fill permits only for "water-oriented" uses, or in the case of small amounts of fill, to improve shoreline appearance or to increase public access to the Bay. A highway is not considered to be a water-oriented use; bridges and causeways are water-oriented uses. Therefore, the Commission cannot authorize a highway in the Bay unless it is on a bridge or causeway and meets the Bay Plan transporation policies.

The Bay Plan policies prohibit any form of fill in the Bay for new freeways unless the Commission finds that no reasonable alternative exists for solving the traffic problem without Bay fill. The Bay Plan policies also require that if any freeway is proposed in the Bay "adequate research and testing should [be undertaken to] determine whether new methods of transportation could overcome the particular congestion problem without a route in the Bay." To ensure that this requirement is carried out properly, the Commission will consider both those alternatives that may be available in the future when

a permit application is submitted and also those alternatives that would be available in the future if steps were now taken to identify and implement them. It is prudent to face this requirement now by coordinating the efforts of all relevant government agencies to determine which transportation alternatives should be pursued.

About five years ago, the Commission faced a situation similar to that now occuring in the East Bay when it appeared that it would be necessary to fill portions of the Bay in order to expand the capacity of Highway 101 on the San Francisco Peninsula. Our Commission and the Metropolitan Transportation Commission undertook a joint study of this problem and found that there was no assessment of the cumulative impacts of development on the regional transportation system even though project environmental documents were more narrowly analyzing the local transportation impacts of new developments. As a result, local governments were approving individual development proposals without knowing how the traffic generated by the projects could be accommodated. To deal with this problem and to address the Bay Plan requirement for a full analysis of alternatives for overcoming the congestion problem without Bay fill, a Peninsula Transit Alternatives Project was undertaken to develop a long range and cohesive regional strategy for improving transportation in the Highway 101 corridor.

Because of the parallels between the current situation in the East Bay and the problems along the Highway 101 corridor, we believe that the highway planning efforts in the East Bay must be expanded to include an evaluation of alternatives for resolving current and projected traffic demands without resorting to routes that require Bay fill. One means of addressing the projected traffic problems may be to determine whether traffic projections can be reduced by scaling back development proposals that are expected to generate additional traffic. This approach seems particularly applicable in the NIMDOTS area where so much of the development that will exacerbate the traffic problems also would be built on Bay fill. An alternative urbanization strategy is preferable (and legally required) to one which would require additional Bay fill to resolve the problems caused by past Bay fill projects.

To begin dealing with the cumulative impact of individual development proposals, we have requested that the California Department of Transportation to advise local governments about the traffic implications development proposals would have on the freeway network. We urge that you give full consideration to this issue in making your decisions on development proposals coming before you for permits. We also ask you to review your general plan to assure that the traffic generated by the use and density of the future development you are planning may be accommodated without resorting to filling San Francisco Bay for more highways.

Finally, we are advising the Federal Highway Administration of the Commission's concerns so that any federally funded East Bay transportation planning can evaluate a full range of alternatives for dealing with traffic congestion instead of investigating freeway routes in the Bay.

We look forward to, and thank you for your cooperation and support in these matters.

Very truly yours,

ROBERT R. TUFTS
Chairman

cc: Chairman, Metropolitan Transportation Commission
Chairman, California Transportation Commission

APPENDIX C

Metropolitan Transportation Commission
Summary of Major Responsibilities
(Citations of Appropriate Statutes, Rules and Regulations

A. MTC's Enabling Statute (Government Code § 66500 et seq.)

- There is hereby created...the Metropolitan Transportation Commission to provide comprehensive regional transportation planning for the region... (Govt. Code § 66502).

- The commission shall adopt...a regional transportation plan for the region. (Govt. Code § 66508).

- The regional transportation plan shall be subjected to continuous review by the commission... (Govt. Code § 66513).

- The construction of any transbay bridge in the region shall not be commenced without the approval of the commission. (Govt. Code § 66514).

- No public multicounty transit system using an exclusive right-of-way...shall be constructed or operated without the approval of the commission. (Govt. Code § 66515).

- The commission shall render all available assistance to transit systems operated within the region by any city or public agency to ensure adequate feeder service to public multicounty transit systems. (Govt. Code § 66517).

- The commission shall develop regional transit service objectives, develop performance measures of efficiency and effectiveness, specify uniform data requirements to assess public transit service benefits and costs,and formulate procedures for establishing regional transportation priorities in the allocation of funds for transportation purposes... (Govt. Code § 66517.5)

- When allocating funds for construction on the state highway system within the region, the California Transportation Commission shall conform to the regional transportation plan and the schedule of priorities for such construction included therein...[subject to overriding state interest]. (Govt. Code § 66518).

- Any application to the federal or state government for any grant of money, whether an outright or a matching grant, by any county, city or county, city or transportation district within the region shall, if it contains a transportation element, first be submitted to the commission for review as to its compatibility with the regional transportation plan. The commission shall approve and forward only those applications that are compatible with the plan... (Govt. Code § 66520).

B. Allocation of Transportation Funds

1. The Transportation Development Act ("TDA") (Public Utilities Code Section 99200 et seq.)

TDA specifies that 1/4 of 1¢ of the 6¢ state sales tax revenues be dedicated to transit purposes and that MTC:

a. Apportion these funds for bicycle and pedestrian facilities (TDA Article 3), public transit (Article 4), community transit (Article 4.5), and contract transit services and local streets and roads (Article 8); and

b. Allocate these funds to eligible claimants based on their transit plan, apportionment of areas, financial and operating data reports, and analysis of proposed budgets.

2. Federal Funds for Transit (49 U.S.C. § 1601 et seq.)

The Surface Transportation Assistance Act of 1982 specifies that the designated recipient be named for large urbanized areas to receive and dispense UMTA Section 9 block grants. MTC is the designated recipient for the San Francisco/Oakland and San Jose urbanized areas and is required under the Act to:

a. Develop and submit to the federal Secretary of Transportation a program of projects, after public hearing(s).

b. Enter into three party agreements upon grant approval, allowing the funds to flow from UMTA directly to the applicant.

3. 25% of One-Half Cent Sales Tax in BART Counties (Public Utilities Code § 29140 et seq.)

AB 1107 (Statutes 1977, Chapter 1204) established 1/2 ¢ sales tax in Alameda and Contra Costa Counties and the City and County of San Francisco and specified that MTC allocate 25% of these sales tax revenues to AC Transit, BART and S.F. Muni in accordance with a financial management plan to continue vital transit services.

4. Bay Area Bridge Tolls (Streets and Highway Code § 30880 et seq.

AB 664 (Statutes 1975, Chapter 1229) specifies that MTC may adopt toll schedules, subject to certain limitations, with CTC's approval, and allocate toll bridge net revenues to transit operators and Caltrans to achieve MTC's capital planning obligations in the vicinity of toll bridges.

5. State Transit Assistance (STA) Public Utilities Code § 99310 et seq.)

AB 2551 (Statues 1982, Chapter 322) specifies that 60% of funds made available annually by the Legislature for transportation planning and development (TP&D) account in the State Transportation Fund be designated as the State Transportation Assistance (STA) Fund and that MTC:

a. Allocate 30% of these funds to transit operators according to the legislatively mandated formula.

b. Allocate 70% of those funds to TDA Articles 4 and 8 claimants to offset reductions in federal operating assistance, to enhance existing services and to meet high priority transportation needs.

C. Transportation Planning and Programming

1. Regional Transportation Improvement Program (Government Code § 65080 et seq.)

Alquist-Ingalls Act (AB 402, Statutes 1977, Chapter 1106) specifies that MTC adopt a 5-year Regional Transportation Improvement Program (RTIP) each year that programs the regions highway, transit and general aviation funds allocated by the CTC.

2. Transit Capital Improvements (Government Code § 14520 et seq.)

AB 2551 (Statutes 1982, Chapter 322) specifies that MTC develops a transit guideway financial plan each year, from which CTC adopts a program of exclusive public transit guideway, and other transit capital improvements to allocate Proposition 5 and TP&D Account funds, subject to the state budget.

3. Federal Urban Transportation Planning Rules and Regulations (23 C.F.R. Part B, June 30, 1983) specifies that MTC shall develop and endorse a:

a. Transportation Improvement Program (TIP) that:
   - programs highway and transit operating and capital projects whose funding includes federal funds.
   - Indicates the region's priorities.
   - Includes realistic estimates of total costs and revenues.
   - Covers at least a three-year period;

b Overall Work Program (OWP) that coordinates the MTC budget and work program with that of the transportation programs of the State and the planning programs of the Association of Bay Area Governments;

c. Regional Transporation Plan, as required under MTC's enabling statute; and

d. Certification that the region's planning process complies with federal requirements.

4. High Occupancy Vehicles Lanes (Vehicle Code § 21655)

Any designation of preferential highway lanes for high occupancy vehicles in the regional must be approved by MTC.

5. BART One-half Cent Funds (Public Utilities Code § 29142.2)

AB 842 (Statutes 1979, Chapter 1204) specifies that MTC develops a financial management plan to continue vital transit services by AC Transit, BART and S.F. Muni.

6. Service to the Disabled and Elderly (Government Code § 15975)

The Social Service Transportation Improvement Act (AB 120, Statutes 1979, Chapter 1120) specifies that MTC shall designate one or more Consolidated Transportation Services Area (CTSA) in the region to improve coordination of social services transportation services for purposes of receiving TDA Article 4.5 funds.