California Rail Passenger Development Plan

1991-96 Fiscal Years

July 1991
State of California
Department of Transportation

Caltrans

STATE OF CALIFORNIA - BUSINESS, TRANSPORTATION AND HOUSING AGENCY PETE WILSON, *Governor*

DEPARTMENT OF TRANSPORTATION
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July 1, 1991

Members, California Legislature
State Capitol
Sacramento, CA 95814

Dear Members:

This transmits the 1991 Rail Passenger Development Plan, as required by Section 14036 of the Government Code. The Plan provides an overview of the development of intercity and commuter rail passenger service in California. It describes the service on various individual routes--both existing and potential--and presents the Department's recommendations concerning State-supported service on specific routes.

The Plan also contains the information required by the following enacted bills: Chapter 1490, Statutes of 1990 (AB 3736-Costa); Chapter 298, Statutes of 1990 (AB 3671-Eastin); Chapter 435, Statutes of 1989 (AB 2484-Lempert); and Chapter 740, Statutes of 1989 (AB 1582-Costa).

Chapter I of the Plan reflects new directions in rail policy consistent with rail bond measures approved in 1990. The capital and operating plans contained in the Plan also reflect the $3 billion in rail bond funds approved by the voters in June 1990, and the two $1 billion rail bond issues scheduled for the ballot in November 1992 and November 1994.

The Plan includes operating funds for the three existing State-supported rail passenger services in Fiscal Year 1991/92, plus funding for the proposed new corridor service between Placer County, Sacramento, and the Bay Area. The Plan also includes funding to operate new and expanded rail services in future years, reflecting the approval of the rail bonds that will provide the capital support needed to implement such services.

As required by Section 14036, this Plan was presented to the California Transportation Commission for its advice and consent. In June of 1991, the Commission adopted a Resolution giving its consent to the Plan and advice on State-supported rail passenger service in the coming fiscal year. Enclosed are copies of the Resolution and the Commission's letter which accompanies the Resolution.

Draft copies of the Plan were also distributed to the California Public Utilities Commission, Amtrak, Santa Fe, Southern Pacific, Union Pacific, the Steering Committee of Caltrans Rail Task Force (San Joaquin Route), the Los Angeles-San Diego Rail Corridor Agency, the Policy Advisory Committee for the ACR-132 Rail Upgrade Study (Placer County-Sacramento-Bay Area Corridor), the Departmental Transportation Advisory Committee and all county and regional transportation planning agencies in the State for their review and comment. Comments received were incorporated or discussed in the Plan, as appropriate.

Sincerely,

A. A. PIERCE
Interim Director

Enclosure

STATE OF CALIFORNIA

CALIFORNIA TRANSPORTATION COMMISSION

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June 20, 1991

Honorable Quentin Kopp, Chairman
Senate Transportation Committee

Honorable Richard Katz, Chairman
Assembly Transportation Committee

Dear Senator Kopp and Assemblyman Katz:

The California Transportation Commission is transmitting to the Legislature the 1991 Rail Passenger Development Plan with the California Transportation Commission's Resolution G-91-16, adopted on June 20, 1991, which gives advice and consent as required by Section 14036 of the Government Code.

This plan is important because it describes and gives justification to the Department's annual request for the allocation of State Transportation Planning and Development (TP&D) Account funds for both capital and operating costs on intercity and commuter rail service in California. The plan also highlights future intercity and commuter rail needs in the state. By statute, all extensions and new service must be approved by the Commission and all state funds for capital and operating expenses are allocated by the Commission (Section 14031.6 and Section 14031.7 of the Government Code).

Individual chapters of the 1991 Rail Passenger Development Plan are devoted to capital improvements, the three state-supported rail systems, proposed intercity service, proposed Southern California commuter service, and operating and financial plans.

The resolution also notes Commission advise for expanding upon or improving the current Plan, including the following issues: potential loss of bound revenues; California car specifications; and rail electrification.

The resolution also advises that the proposed Peninsula Commute Service Capital Improvement Plan be revised to reflect more accurately both capital and operation costs, and availability of federal, state and local revenue.

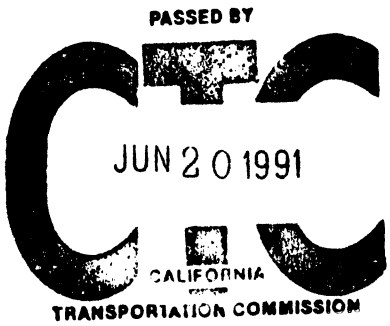
We appreciate the opportunity to give advice and consent on Caltrans' 1991 Rail Passenger Development Plan. We intend our comments to be constructive and that they will result in closer cooperation between Caltrans and the Commission in the implementation of intercity and commuter rail service in California.

Sincerely,

Bruce Nestande

BRUCE NESTANDE
Chairman

Attachment



CALIFORNIA TRANSPORTATION COMMISSION

COMMISSION ADVICE AND CONSENT
ON THE DEPARTMENT'S
RAIL PASSENGER DEVELOPMENT PLAN

RESOLUTION G-91-16

RESOLVED that the California Transportation Commission has reviewed the Department's 1991 Rail Passenger Development Plan and under Section 14036 of the Government Code gives consent and the following advice:

RESOLVED that the Commission supports:

- the Plan's continued funding for the existing San Diego service and adding 9th and 10th round trips to Los Angeles and San Diego, as well as extending the 3rd and 4th San Diego trains to Santa Barbara;

- the Plan's continued funding for the existing San Joaquin service and improvements recommended by the Los Angeles-Fresno-Bay Area/ Sacramento High Speed Rail Corridor Study (AB 971, Costa);

- the Plan's recommended efforts to start up rail service in the Auburn-Sacramento-San Jose corridor as early as October 1991;

- the Plan recognition that state funding to operate the Peninsula Commute Service through no later than FY 1992-93 with steps to end state involvement continue in order that state participation end by July 1, 1993;

RESOLVED that the Commission offers the following advice regarding the Plan:

- that no new state subsidized rail service should be started unless all existing state supported services continue to meet their statutory farebox requirements (55% for intercity and 40% for commuter service);

- before any new services are proposed by Caltrans for state funding or for Commission endorsement, the Commission should be briefed by Caltrans at an early stage in those new services' development to determine if state subsidy is warranted;

- that an intercity and commuter rail project must be listed in the Rail Passenger Development Plan before any funds are programmed or allocated by the Commission;

- when proposing any new or enhanced rail services, Caltrans should develop a funding plan, which identifies all financial resources necessary to fund the capital improvements, rolling stock and operations of the service;

- that the Commission supports the Joint Powers Agency or Rail Transit District, which does not include the State as a member, for the management of the Peninsula Commute Service;

- o the Peninsula Commute Service capital improvement and operating plans which were submitted to the Department in September 1990 should be revised, prior to submittal to the Legislature to correct or expand information pertaining to right-of-way costs, operating costs, and sources and timing of Federal, State, and local revenue;

RESOLVED that while the Plan conforms to its statutory mandates, it should be further enhanced in the next update as follows:

- o the Plan address the potential lack of State funding and its impact on rail service, if the second and third AB 973 rail bond measures do not pass in 1992 and 1994;

- o the Plan's Intercity Rail Operations Chart, which currently shows only state funding, be revised to show the local and federal contributions for a full picture of the operation costs;

- o the Plan address the use of TP&D funds freed up after FY 1992-93, when the State stops direct support of Peninsula Commute Service operations;

- o the Plan identify potential projects for inclusion in the upcoming 1992 State Transportation Improvement Program using Flexible Congestion Relief funding;

- o the Plan discuss funding under the federal rail-highway crossings program, including cash balance, funds encumbered the previous year and amount anticipated to be received in the subsequent year;

- o the Plan discuss the California rail car specifications, as mandated under Proposition 116, and their impact on the rail service needs over the time-frame of the plan;

- o the Plan discuss electrification of the commuter and intercity rail, its costs, likely corridors suitable for electrification, and its impact on service and operating costs;

- o the Plan discuss, as an advisory, significant projects planned or proposed during the next 5 years (e.g., proposed LAX-Palmdale privatization rail project);

RESOLVED that Resolution G-91-16 be inserted into the 1991 Rail Passenger Development Plan and transmitted to the Governor, the Legislature and the Public Utilities Commission in connection with the 1991 Rail Passenger Development Plan.

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California

Rail Passenger Development Plan

1991 Through 1996 Fiscal Years

As Required by Section 14036

of the Government Code

July 1991

State of California

Department of Transportation

Division of Rail

DOR 1

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Executive Summary

CHAPTER ONE - INTRODUCTION

In a State in which auto travel is increasing beyond the capacity of highways, streets and roads, changes must be made to provide intercity, commuter and urban rail systems that are compatible with each other.

The development of a plan for transportation in California needs to include rail and involve all transportation providers, public and private. As urbanized areas increase in size and number, integration of systems is a necessity. To achieve a balanced transportation system, more flexibility for the transportation funds is needed. Aggressive support, funding and authority will make it possible to implement the commuter, urban and additional intercity service that the California taxpayer voted for on June 5, 1990.

Despite the impediments to a new era of rail transportation, actions by the Executive and Legislative arms of California government can ease some of the constraints and streamline the process from planning to construction. Then the goal of a balanced transportation system, where each mode of travel provides its greatest potential, will appear within reach.

CHAPTER TWO - THE CALIFORNIA RAIL NETWORK

In California, Amtrak operates six basic system routes:

The *Coast Starlight* (Los Angeles-Sacramento-Seattle)

The *California Zephyr* (San Francisco-Sacramento-Denver-Chicago)

The *Desert Wind* (Los Angeles-Salt Lake City)

The *Southwest Chief* (Los Angeles-Chicago)

The *Sunset Limited* (Los Angeles-New Orleans)

The *San Diegans* (Santa Barbara-Los Angeles-San Diego)

The first five are interstate routes that provide varying levels of service in California while the *San Diegan* is strictly an intrastate route.

In addition to the service provided by these basic system routes, California "supplements" them with funding to provide additional intrastate services. The State supports four of eight trains on the portion of the *San Diegan* route between Los Angeles and San Diego and two on the portion between Los Angeles and Santa Barbara. Also, the State supports three trains on the *San Joaquin* route (Oakland - Bakersfield) through the Central Valley.

Two commuter rail services currently operate in California: The Peninsula Commute Service between San Francisco and San Jose and the Orange County Commuter Rail between Los Angeles and San Juan Capistrano.

The State is responsible for all intercity rail lines in California, with the cooperation of local and regional planning agencies. Intercity rail services supported by the California Department of Transportation (Caltrans) are components of the State's overall transportation system. Commuter rail services are the responsibility of the local and regional transportation agencies because they primarily serve local and regional transportation needs.

The definition of commuter versus intercity rail service is provided in Chapter Two.

CHAPTER THREE - THE SAN DIEGANS

Performance

The performance of the *San Diegan* has been extremely positive. The revenue/cost ratio exceeds 100 percent and ridership continues to escalate. The extension of service to Santa Barbara, the introduction of special round trip fares, custom class service and aggressive marketing have all contributed to the great success of this rail line.

Recommendations

1. FUND CURRENT *SAN DIEGAN* SERVICE FOR THE PERIOD OF THIS PLAN.
2. ADD THE NINTH AND TENTH *SAN DIEGAN* ROUND TRIPS BETWEEN LOS ANGELES AND SAN DIEGO.
3. ADD THE THIRD AND FOURTH *SAN DIEGAN* TRAINS TO SANTA BARBARA.
4. EXTEND *SAN DIEGAN* TRAIN SERVICE TO SAN LUIS OBISPO IF STUDY RESULTS ARE FAVORABLE.

CHAPTER FOUR - THE SAN JOAQUINS

Performance

The performance of the *San Joaquins* has improved dramatically since State support began in 1979. Ridership has tripled, revenue has increased eight-fold, and the revenue-cost ratio has improved from 29.5 percent to 77.5 percent in Fiscal Year 1989/90.

In addition, a third train was added in late 1989, the top speed of the trains has been increased to 79 mph, many new stops have been added and an aggressive marketing program has been undertaken to educate the public on this alternative source of transportation.

Recommendations

1. FUND CURRENT *SAN JOAQUIN* SERVICE FOR THE PERIOD OF THE PLAN.
2. EXTEND *SAN JOAQUIN* TRAIN SERVICE DIRECTLY TO SACRAMENTO.
3. ADD A FOURTH DAILY *SAN JOAQUIN* TRAIN.
4. REROUTE *SAN JOAQUIN* SERVICE ONTO THE SOUTHERN PACIFIC LINE BETWEEN STOCKTON AND FRESNO AT A FUTURE DATE WHEN RUNNING TIME CAN BE COMPARABLE TO THE PRESENT ROUTE.
5. EXTEND *SAN JOAQUIN* TRAIN SERVICE TO LOS ANGELES.
6. PROVIDE CHECKED BAGGAGE SERVICE.
7. PROVIDE CUSTOM CLASS SERVICE.

CHAPTER FIVE - CONNECTING BUS SERVICES

Caltrans has instituted an extensive network of connecting bus links to increase the accessibility of the State supported train services. They also serve as a test of potential ridership for proposed rail services. Caltrans contracts with Amtrak for the provision of these bus services, and Amtrak then contracts with bus operators. This allows bus routes to serve as direct parts of Amtrak's system in California, with integral fares and ticketing, and inclusion in Amtrak's central information and reservation system.

The dramatic improvement in *San Joaquin* route performance is due in large part to implementation of a comprehensive network of feeder bus services; presently, feeder bus passengers represent 54 percent of all *San Joaquin* riders and generate 66 percent of *San Joaquin* system revenues. *San Diegan* ridership performance has also been assisted by the feeder bus network.

CHAPTER SIX - PROPOSED INTERCITY SERVICES

Placer County-Sacramento-Oakland-San Jose Corridor

Assembly Concurrent Resolution 132 requested the Metropolitan Transportation Commission, the Sacramento Area Council of Governments and Caltrans to conduct an intercity rail corridor upgrade study on this route.

This study recommended a series of phased improvements. Phase II-B, the selected first increment of corridor development, includes up to ten daily round-trips with capital costs of $117 million. Status reports of service implementation efforts underway in this corridor are presented regularly to the Legislature in response to House Resolution 14.

San Francisco Bay Area-Eureka

In Fiscal Year 1991, Caltrans will fund a study of the potential for intercity rail passenger service and inventory the condition of the line, which is eligible to receive funding for capital improvements from Proposition 108 rail bonds.

San Francisco-Monterey

The Budget Act of 1991 appropriates funds for a new study of the San Francisco-Monterey rail corridor which will provide the Legislature and Caltrans with current information necessary to evaluate the feasibility of operating intercity passenger train service in this corridor.

Sacramento-Los Angeles Coast Route Overnight Service

Assembly Bill 3671 required Caltrans to determine the feasibility of procuring and modifying Horizon Fleet or Superliner-type coaches for use in potential overnight service between Sacramento, the San Francisco Bay Area, Santa Barbara and Los Angeles. The study has been presented to the Legislature.

Los Angeles-Coachella Valley-Calexico

The Riverside County Transportation Commission authorized a preliminary study that will be submitted to the Legislature, the California Transportation Commission and Caltrans in Fall 1991. The study will include patronage estimates, equipment needs, track improvements, a revenue/cost assessment and identify potential stations on the route.

CHAPTER SEVEN - THE INTERCITY CAPITAL PROGRAM

General

In June 1990, California voters approved three transportation funding measures which provided a significant increase for rail capital funding. These measures, Propositions 108, 111 and 116, combined with two additional rail bonds scheduled for the 1992 and 1994 ballots, provide sufficient funding to implement the new and expanded rail services for which budget needs have currently been identified.

The following corridors are eligible for State intercity rail funding under Proposition 108:

- Los Angeles-San Diego
- Santa Barbara-Los Angeles
- Los Angeles-Fresno-San Francisco Bay Area and Sacramento
- San Francisco Bay Area-Sacramento-Auburn
- San Francisco-Santa Rosa-Eureka

The intercity corridors eligible for Proposition 116 funding are discussed in this Chapter.

The 1991 Intercity Rail Program (IRP) is also presented. It shows Caltrans prioritized and updated list of intercity rail projects from the 1990 State Transportation Improvement Program for Proposition 108 funded projects and Caltrans related proposed intercity rail project list for Proposition 116 funded projects. It also includes intercity rail Transit Capital Improvement projects for Fiscal Years 1990/91 and 1991/92 (and those proposed by Caltrans for Fiscal Year 1992/93). Program implementation as presented is contingent upon timely sale of bonds.

The *San Diegans*

The 1987 LOSSAN I study outlined a $246 million capital improvement program which would reduce running times up to 24 minutes, permit the operation of up to ten daily round trips between San Diego and Los Angeles, improve reliability and permit the introduction of commuter service between Orange County and Los Angeles and between Oceanside and San Diego.

In addition, an $84.9 million capital improvement program was recommended in the 1989 LOSSAN II study for the line north of Los Angeles up to Santa Barbara.

The *San Joaquins*

The Los Angeles-Fresno-Bay Area/Sacramento High-Speed Rail Corridor Study Group issued a final report to the Legislature in May 1990. The conclusions of that report are presented in detail in Chapter Seven.

The focus of the study was to identify incremental improvements necessary to increase speeds to the 125 mph range and further improvements needed to increase speeds to much higher ranges. The report also recommended several short term capital changes and improvements, some of which are already being implemented.

CHAPTER EIGHT - HIGH SPEED RAIL

Passage of recent bond initiatives has given a major impetus to an expanded rail program in California. One aspect of that expanded program is a thorough evaluation of the possibilities for high speed rail in California.

Senate Bill 1307 (Chapter 1104, Statutes of 1990) calls for an evaluation of all rail technology, services and funding throughout the state. It requires Caltrans to develop a work plan and contract for a feasibility study for the development of an integrated publicly, privately, or publicly and privately operated high-speed ground transportation system which includes specified intercity and commuter rail corridors. Upon Legislative approval of the work plan and funding, a feasibility study related to these issues should take approximately two years to complete and cost about $3 million.

SB 1307 was preceded by several studies which focused on specific rail corridors throughout the state. Recent rail corridor studies have included evaluations of the Los Angeles-San Diego corridor, the Santa Barbara-Los Angeles corridor, the Los Angeles-Fresno-Bay Area-Sacramento corridor and the Placer County-Sacramento-Oakland-San Jose corridor.

In addition, legislation has created the California-Nevada Super Speed Ground Transportation Commission which is providing the framework for a super speed transportation system that will link Southern California with Las Vegas, Nevada. In July 1990, a consortium headed by the Bechtel Corporation proposed to construct a maglev system for the Southern California-Las Vegas corridor. Sources for funding are uncertain although by law no State funding can be committed to the project.

There is also another advanced technology rail project underway. In Summer 1991, the Los Angeles County Transportation Commission will issue a Request for Proposal to identify developer teams to implement an advanced technology demonstration project on the 70 mile route between Los Angeles International Airport and Palmdale Regional Airport.

CHAPTER NINE - NORTHERN CALIFORNIA COMMUTER SERVICES

The Peninsula Commute Service (San Francisco-San Jose)

BACKGROUND

The Peninsula Commute Service (PCS) is a rail route of 47 miles between San Francisco and San Jose which offers a significant opportunity to increase people-carrying capacity in this heavily populated corridor. Rail service on this corridor has been provided continuously since 1864 by the Southern Pacific Transportation Company (SP).

On weekdays, 54 trains operate over the full distance between San Francisco and San Jose with approximately 37 of these trains concentrated within the morning and evening commute periods. There are a total of 26 stations on the line.

In 1977, SP applied for permission to discontinue the Peninsula Commute Service, citing increasing financial losses. The State legislature then passed legislation authorizing Caltrans to negotiate and contract with SP to continue operation of the line.

Caltrans signed a ten year agreement with SP to provide public financing through the period ending June 30, 1990. Funding came from Caltrans, the local affected entities and the Federal government. Subsequent State legislation directed Caltrans to extend the contract to June 30, 1993, with local control to begin on July 1, 1992, and all State operations to end on July 1, 1993.

Recommendations

1. APPROPRIATE $8.78 MILLION AS THE STATE'S SHARE OF OPERATING COSTS FOR THE 1991-92 FISCAL YEAR.
2. CONTINUE STATE FUNDING FOR THE OPERATION OF THE SERVICE THROUGH FISCAL YEAR 1992/93, SUBJECT TO THE SERVICE CONTINUING TO RECOVER AT LEAST 40 PERCENT OF ITS SERVICE COSTS FROM SERVICE REVENUES.
3. DEVELOP A PENINSULA RAIL TRANSIT DISTRICT AS REQUIRED BY STATE LAW.

Sonoma/Marin-Bay Area

Commuter rail service had been proposed by a study completed in 1989 to run from Sonoma County and connect with the transbay ferries and bus services at Larkspur. Funding for this service suffered a setback in 1990 with the defeat of sales tax initiatives in Marin County and Sonoma County. Implementation of a commuter rail service in this corridor may be delayed by the lack of a mutually agreeable lead agency or the formation of a joint powers board, and by the limited availability of public funding for operation of the service.

Placer County-Sacramento-Davis

The Placer County Commuter Rail Feasibility Study, issued in November 1990, defines a plan for commuter rail service between Colfax and Davis. Commuter rail service would be coordinated with intercity Amtrak passenger rail services to be provided by the State between Placer County and Santa Clara County via Sacramento and Oakland.

Implementation of this plan is contingent upon the availability of local funding to operate the service and the formation of a multi-jurisdictional committee for project advocacy and planning.

Stockton-Bay Area (Via Altamont Pass)

Proposition 116 identified the Altamont Pass over the California Coastal Range as a potential rail commuter corridor. Proposition 116 provides $14 million for development of the corridor, including $300,000 for an economic analysis and preliminary engineering study for development of immediate and near-term service improvements. San Joaquin County plans to match this $300,000 and begin the study as soon as possible.

CHAPTER TEN - SOUTHERN CALIFORNIA COMMUTER SERVICES

Los Angeles Basin

The following events demonstrate the evolution of commuter rail development in the Los Angeles Basin from individual corridor studies to a comprehensive service implementation program.

- The Orange County Transportation Authority inaugurated the first commuter rail service in Southern California with a weekday round-trip between Los Angeles and San Juan Capistrano.
- Senate Bill 1402 was enacted into law. This legislation directed the local transportation commissions in the Los Angeles Basin to develop an implementation program for commuter rail service by December 1, 1990. In response, the Southern California Commuter Rail Coordinating Council issued its Regional System Plan, outlining a comprehensive program for commuter rail development in the Los Angeles Basin. The final Regional Plan was issued June 14, 1991.
- The Los Angeles County Transportation Commission announced the purchase from the Southern Pacific Transportation Company of 175 miles of right-of-way for near term commuter rail service and long-term preservation purposes. Negotiations continue between the county transportation commissions and the Santa Fe Railway for both purchase of and access to its tracks designated for commuter rail service.
- Three critical studies were issued defining infrastructure and services for a major portion of a commuter rail network in the Los Angeles Basin.
- Agreement was announced for the structure of a proposed regional Joint Powers Authority (JPA) to be called the Southern California Regional Rail Authority (SCRRA).

The initiation of Southern California commuter rail service in 1992 is planned to provide a total of 27 daily round trips over the three lines connecting Moorpark, Santa Clarita and San Bernardino to central Los Angeles. The Oceanside to Los Angeles route is slated to receive regional rail system service in 1993.

When Riverside to Los Angeles commuter trains begin operation in 1995, service from San Bernardino may be expanded to include a second route to Los Angeles over the tracks via Riverside and new service from San Bernardino to Irvine. Future extensions of this system may extend service from Riverside to Hemet and from San Bernardino to Redlands. In total, service is planned for 412 route miles serving 50 stations over six basic service routes.

Unprecedented capital support has been provided for a regional commuter rail service network by the passage of recent bonds. Regardless of the sum of capital investment funds that become available, the actual operation of regional rail services will require substantial local and regional financial support.

Oceanside-San Diego

Commuter rail service is planned between Oceanside and San Diego with service to begin two to three years after access to the right-of-way has been obtained. The service is being developed jointly by the North San Diego County Transit Development Board (lead agency) and the Metropolitan Transit Development Board. Initially, it will offer four trips southbound in the morning peak and four northbound in the evening peak, as well as a single reverse peak service. Nine regular stations (plus two special event stations) will be served. Five locomotives and twenty bi-level commuter cars will be acquired using a combination of local and State rail bond funding.

CHAPTER ELEVEN - OPERATING FINANCIAL PLANS AND TABLES

The services included in the financial tables in this Chapter will require the State to budget and appropriate a total of $89.9 million for operations over the five-year period from 1991/92 through 1995/96. This reflects:

- The anticipated discontinuance of the State's direct reimbursement of its share of the operating loss of the Peninsula Commute Service (PCS) after the expiration of the Caltrans operating agreement on June 30, 1993.
- Inclusion of budget needs for the following new Amtrak services beginning (for planning purposes) in the years shown:
  - (FY 1991/92) Sacramento-Oakland-San Jose corridor service (Stage 1 - three round trips).
  - (FY 1991/92) Sacramento extension of three *San Joaquin* route trains.
  - (FY 1992/93) Ninth and tenth *San Diegan* round trips between Los Angeles and San Diego.
  - (FY 1992/93) Third Santa Barbara extension of the *San Diegan* route.
  - (FY 1992/93) San Luis Obispo extension of the *San Diegan* route.
  - (FY 1992/93) Fourth *San Joaquin* round trip (including Sacramento extension).
  - (FY 1992/93) Los Angeles extension of *San Joaquin* Trains 710-711.
  - (FY 1993/94) Increased Sacramento-Oakland-San Jose corridor service (Stage 2 - six round trips), including new Placer County service.
  - (FY 1993/94) Fourth Santa Barbara extension of the *San Diegan* route.

Funding Availability for Operating Intercity Rail Service

TRANSPORTATION PLANNING AND DEVELOPMENT ACCOUNT (TP&D)

The TP&D Account is the primary source of State funds for financing intercity rail service operations. It receives most of its revenue from the sales tax on diesel fuel. After taking administrative funds from the account, fifty percent of the remaining funds are appropriated to Caltrans for intercity rail service (Amtrak), the Peninsula Commute Service, the Transit Capital Improvement (TCI) Program and other State transportation programs authorized by law. The other fifty percent of the remaining TP&D Account funds are appropriated by the Legislature for State Transit Assistance (STA) purposes.

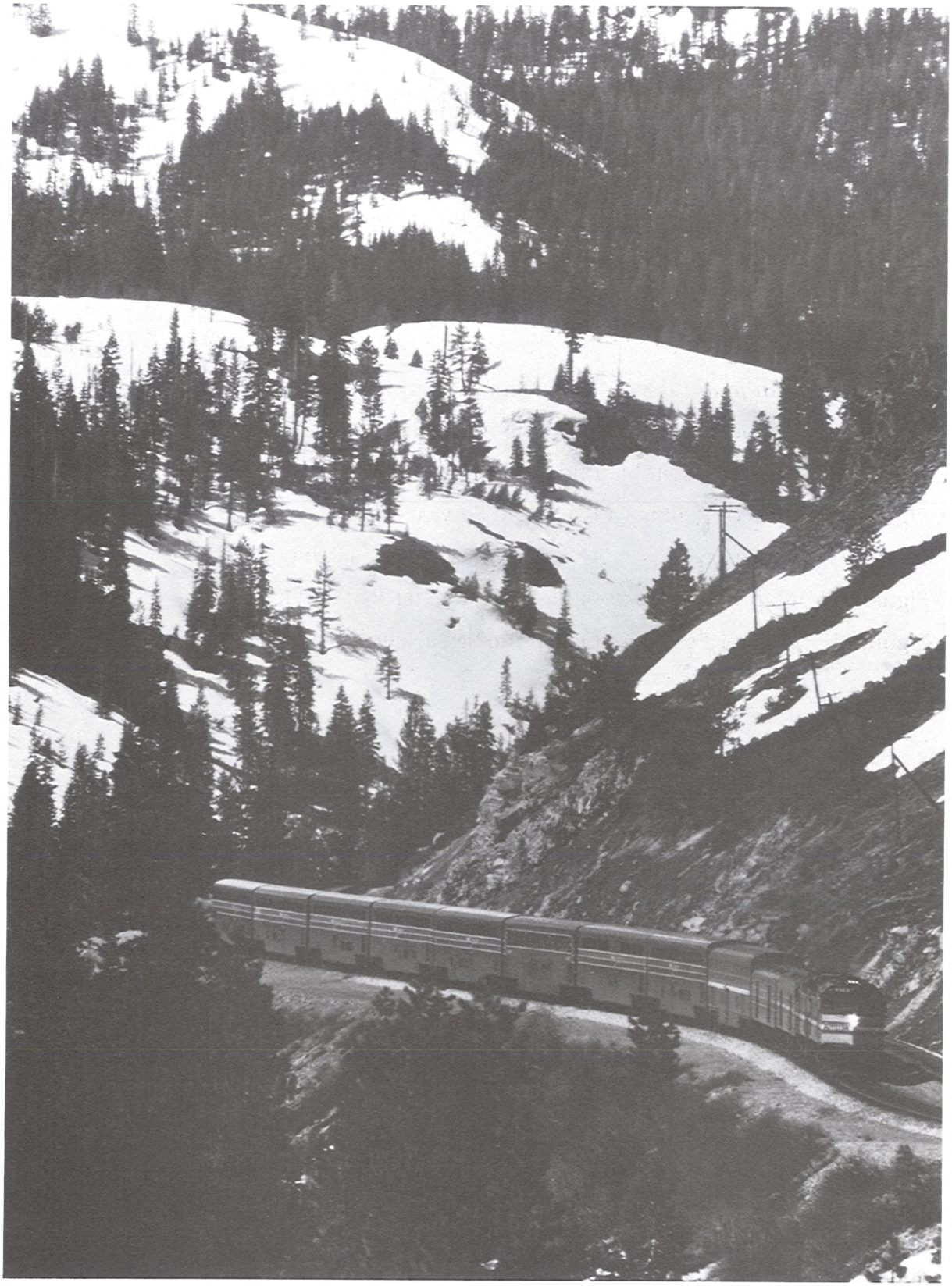
LOCAL SOURCES OF FUNDING

The principal source of local funding for Mass Transportation programs in California is the Local Transportation Fund. Revenues are generated by the local 1/4 percent sales tax for transportation purposes. Recent changes in law clarified that these revenues may also be used for intercity rail operations and capital improvements, indicating that these funds are a potential, but as yet untapped, source of funding for Amtrak services.

In addition, several counties in California have enacted local 1/2 percent sales taxes to be used only for transportation purposes. Redevelopment funds and contributions from private beneficiaries have also been used by local governments in the LOSSAN corridor to finance the construction of stations and related parking facilities.

FEDERAL FUNDS

The State absorbs 65 percent of the operating costs which exceed revenues for State-supported Amtrak services in California while Amtrak covers the remaining 35 percent. Amtrak uses a portion of its federal support funds to help cover its 35 percent share.



The California Zephyr traversing the Sierras.

Key Maps and Ridership Graphs


California's Amtrak Train-Bus Network
Redding
Red Bluff
Willits
Chico
Ukiah
Oroville
Cloverdale
Healdsburg
Marysville
Reno
Santa Rosa
Rohnert Park
Wood-land
Colfax
Truckee
Petaluma
Davis
Napa
Roseville
Marine World
Sacramento
Richmond
Martinez
S. F.
Oakland
Antioch
Stockton
San Jose
Liver-more
Riverbank
Santa Cruz
Turlock
Merced
Yosemite
Salinas
Madera
Fresno
Hanford
Visalia
Corcoran
Paso Robles
Porterville
Atascadero
San Luis Obispo
Wasco
Pismo Beach
Santa Maria
Bakersfield
Lompoc
Tehachapi
Mojave
Las Vegas
Santa Barbara
Burbank
Lancaster
Barstow
Ventura
Palmdale
Oxnard
Glendale
Van Nuys
Pasadena
Los Angeles
Pomona
Santa Monica
Whittier
Fullerton
San Bernardino
Torrance
Long Beach
Riverside
Needles
Santa Ana
Irvine
Palm Springs
San Juan Capistrano
Palm Desert
Oceanside
Indio
Del Mar
El Cajon
San Diego
International Border
El Centro
Calexico
Yuma
Legend
San Joaquin & San Diegan Routes
Bus Feeder Services
Other Amtrak Routes
Urban Rail Services

Figure 1

San Diegan Train and Bus Network

Figure 2

San Diegan Monthly Ridership Graph

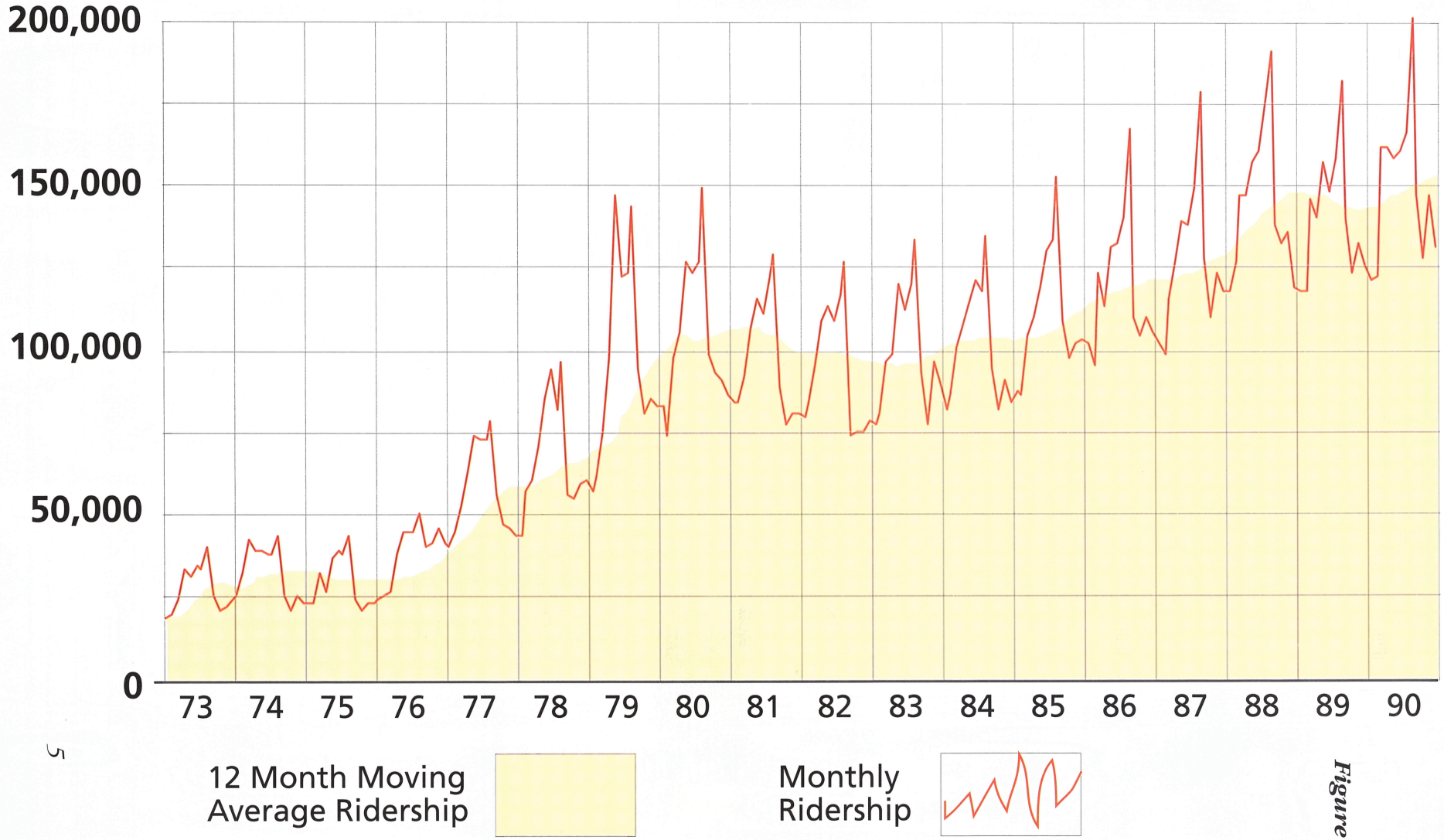
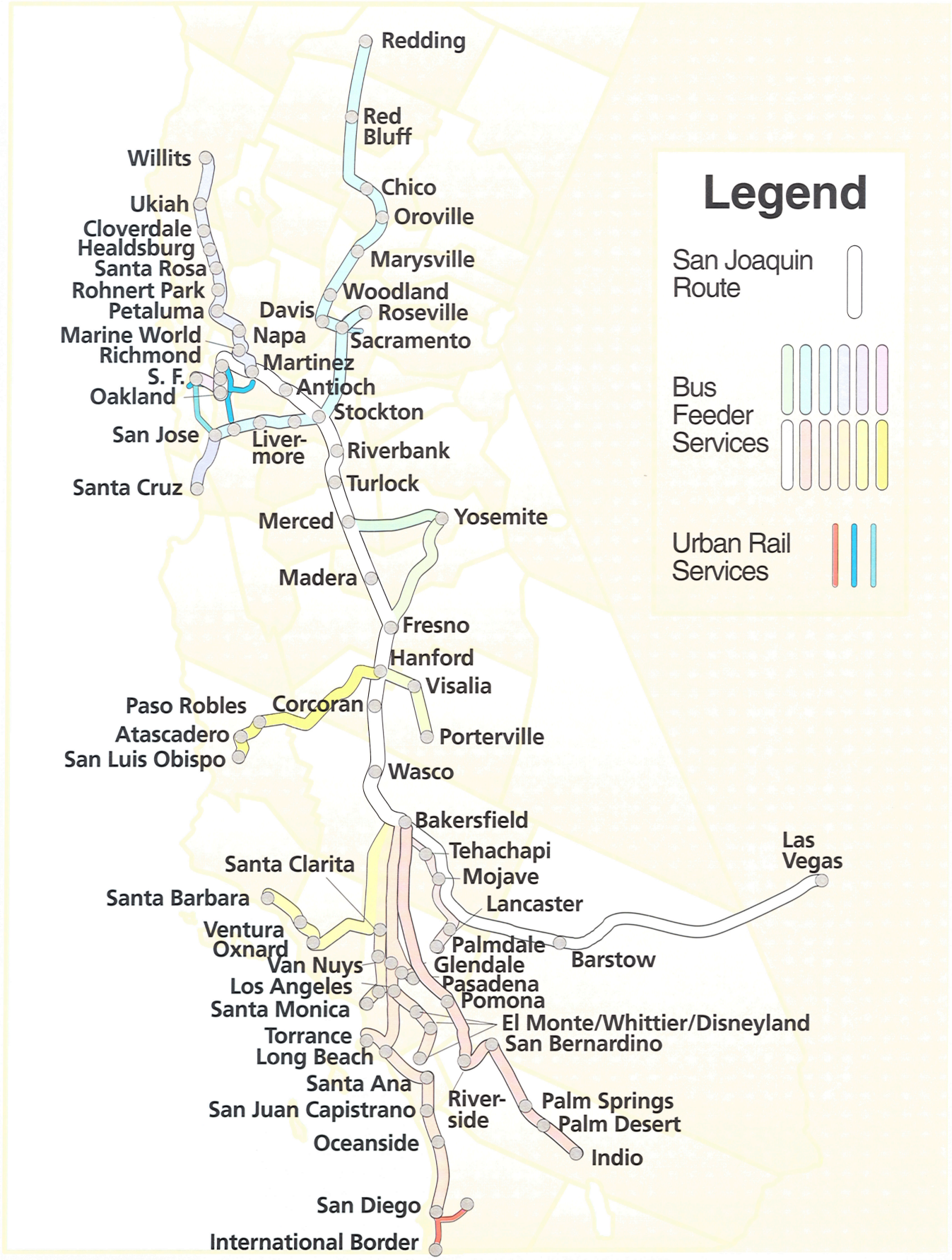


Figure 3

San Joaquin Train and Bus Network

Figure 4



San Joaquin Monthly Ridership Graph

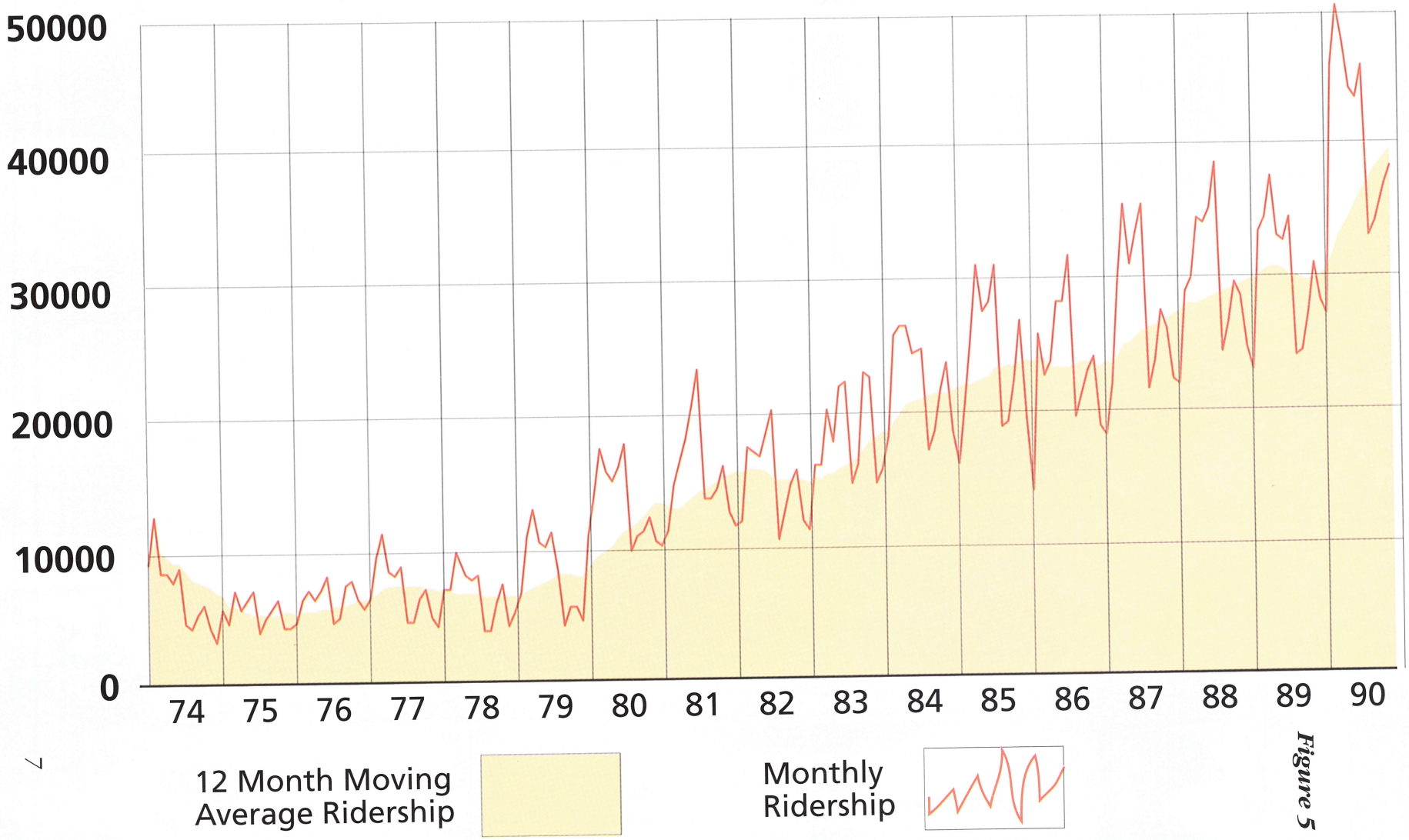
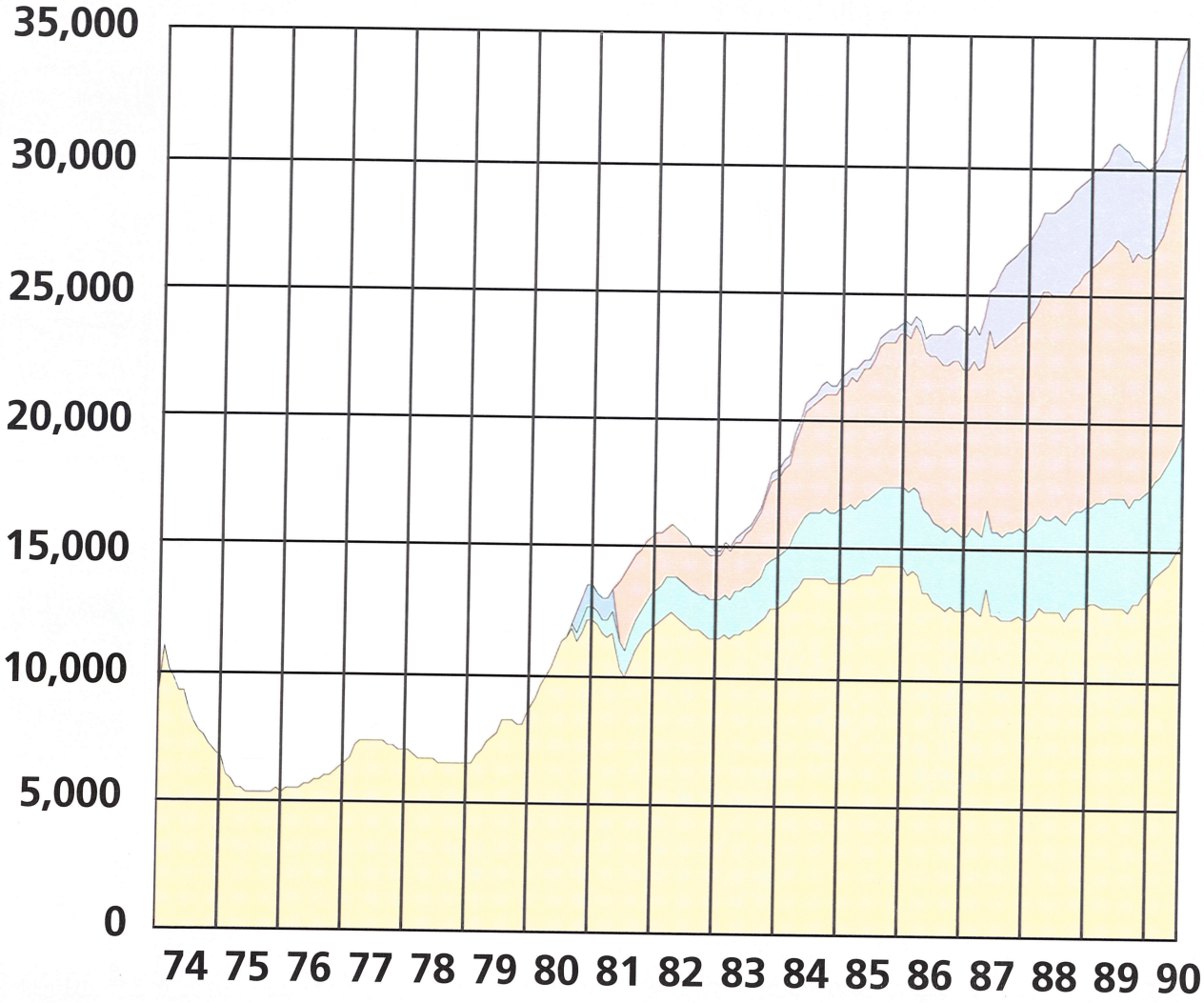


Figure 5

Figure 6

San Joaquin Train and Bus Ridership Graph 12 mo. Moving Averages



Capitol Corridor Train and Bus Network

Figure 7

Figure 8

Peninsula Commute Service

Peninsula Commute Service
Monthly Ridership Graph

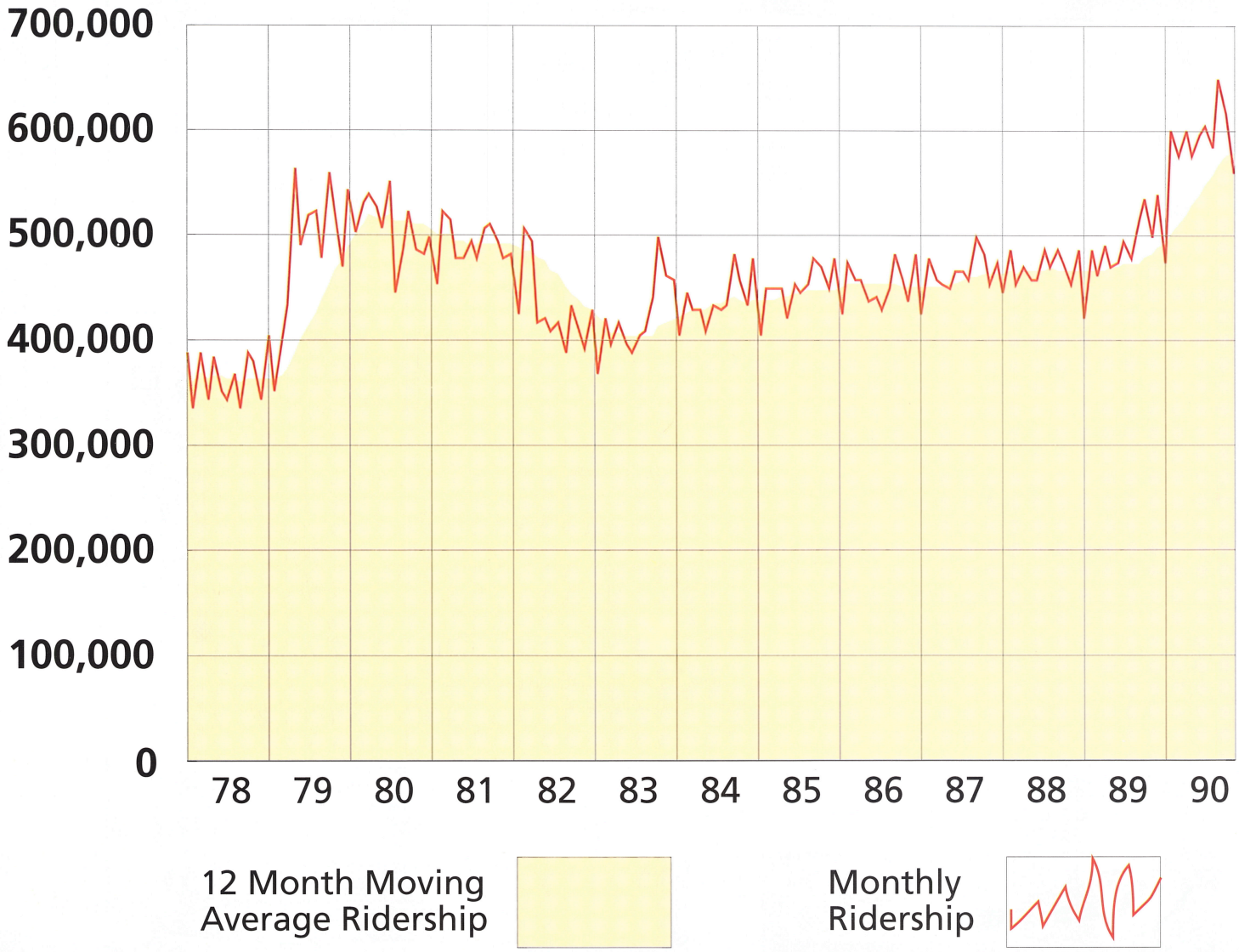


Figure 9

Los Angeles Basin Commuter Rail Services

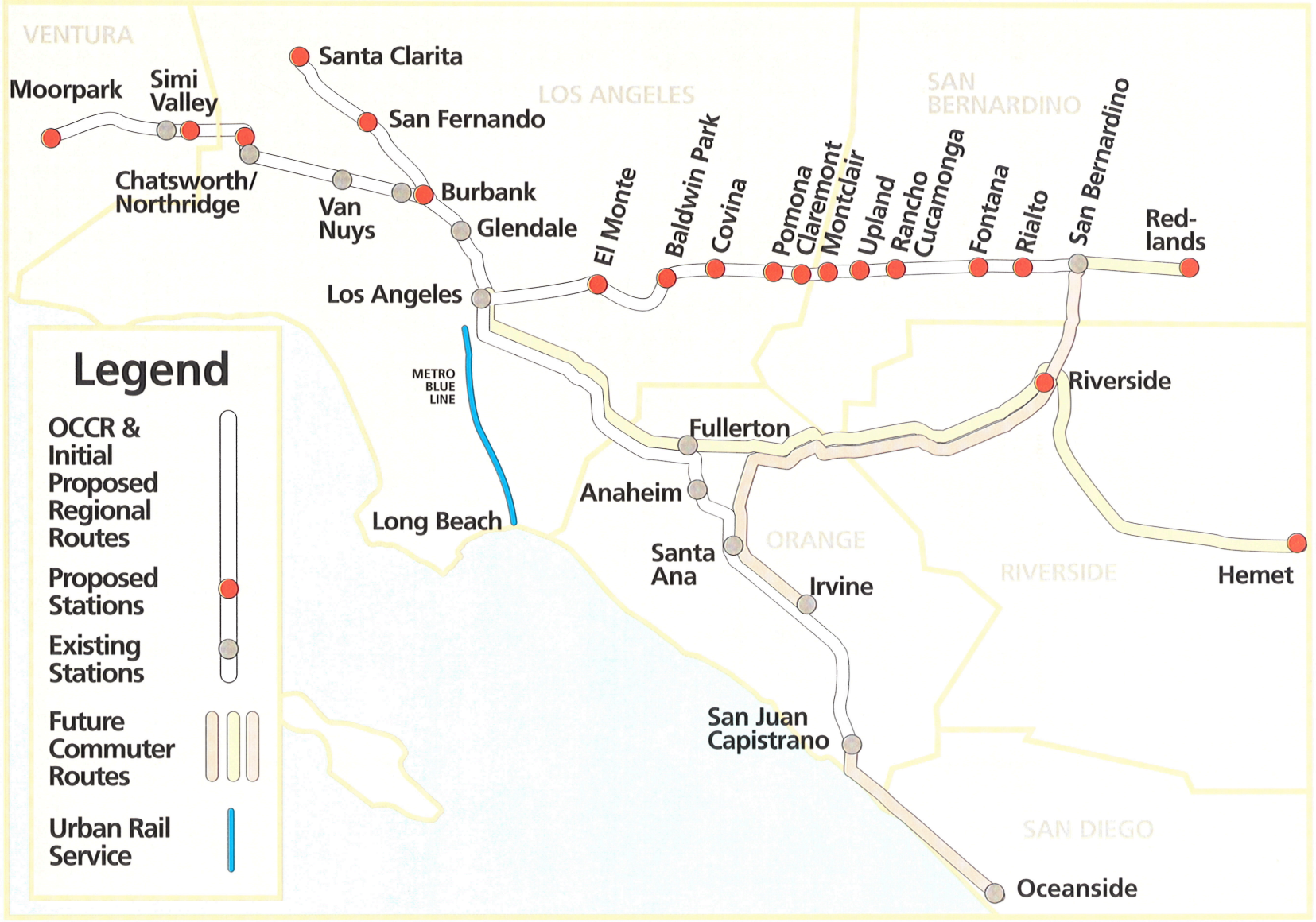
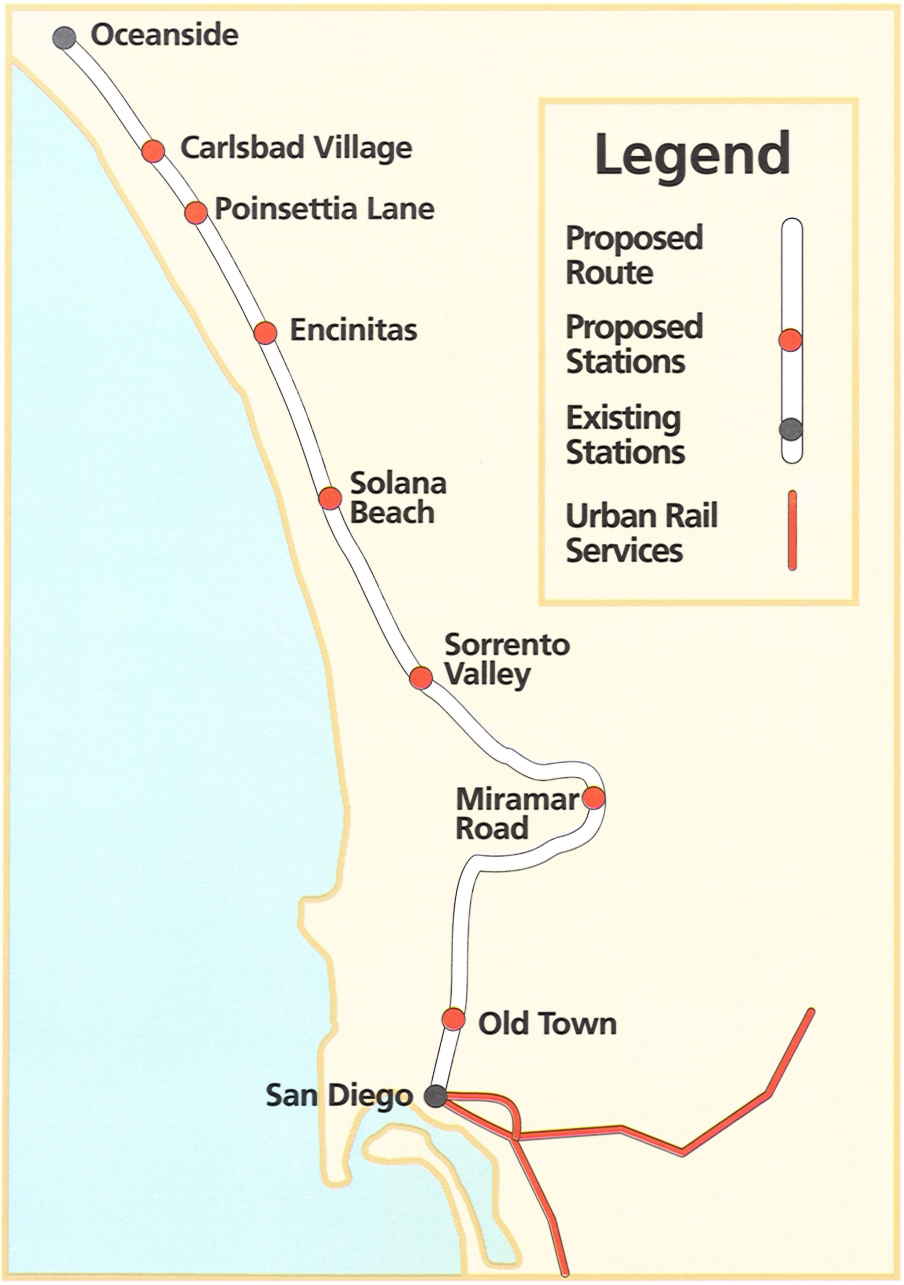


Figure 10

Figure 11

Proposed Oceanside-San Diego Commuter Rail Service



San Diegan passengers boarding at Santa Ana.

Chapter I - Introduction

AN EMERGING ERA OF PASSENGER RAIL TRANSPORTATION

In 1920, three-fourths of the nation's intercity travel was by rail. A half century later, in 1970, rail travel had dropped to one-tenth of that experienced 50 years earlier. The drop occurred even though the nation's population had doubled and California's population had increased about six-fold during that 50 years. Concurrently, local rail systems, used in densely populated areas, died in most places as the automobile became more prevalent.

The potential for a new era in rail transportation occurred on June 5, 1990, with the passage of Propositions 108, 111 and 116 by the California electorate. Voters' approval of Propositions 108, 111 and 116 providing nearly $3 billion for rail capital projects over a 10-year period, is the latest and the clearest signal of a change in the public's desires. The Propositions authorized approximately twice the State expenditures on rail service than has been spent in the last 15 years. Voters may approve $1 billion more in each of the years 1992 and 1994, as provided for in Proposition 108, increasing the significance of these measures.

This voter approval reflects Californians' evolving attitude towards rail transportation. Such an attitudinal change is supported by concerns related to highway congestion, air contamination, fuel conservation and commute time. A less conspicuous decision of California residents for alternatives to auto travel is the increase in the number of counties voting for an option to use highway funds for mass transit guideways. When the option was offered in 1974 by Article XIX of the State Constitution, six counties immediately voted in favor of using highway dollars for guideways, a trade of autos for trains. To date 25 counties have made that choice. This action followed the Federal Highway Acts of 1970 and 1973, providing the option to use highway funds for transit projects in lieu of highways. It appears that the public views rail transportation as a relief to highway congestion.

The State's view of rail transportation can be characterized as one of reluctance compared to the historic public mandate for the State's responsibility for the State Highway System. State transportation corridor studies have seldom seriously considered rail as part of a solution to the need for a balanced transportation system. The rail studies have been done for a specific rail service rather than for rail as part of a system. There has been a policy that urban and commuter rail are a local responsibility with the State taking responsibility for the intercity rail system.

The State's role of providing, in partnership with Amtrak, intercity rail transportation has emerged in the last fifteen years. (See Figure 1, in the Key Maps section, showing State-supported Amtrak Train Service.)

The exception to this role is the State support of the Peninsula Commute service since July 1, 1980. By June 30, 1992, this responsibility, under statute, will return to local hands.

California's population is expected to increase by over 20 percent in the next 10 years, from about 30 million to 36 million people. The number of vehicle miles of travel is expected to increase by 25 percent in the same 10 years; that is an increase of 6.8 billion vehicle miles of travel per year. The peak periods of travel on some urban freeways, streets and roads are challenging the capacity of those travelled ways today. The increase in travel demands may be met by appropriate travel modes if a statewide plan is devised consistent with the needs and desires of the public.

The development of a plan for transportation in California needs to include rail and involve all transportation providers, public and private. As urbanized areas increase in size and number (16 in 1970; 28 in 1980), integration of systems is a necessity. The intercity rail system must be coordinated with commuter and urban rail systems in the same manner that the State and local highway systems are coordinated.

The inflexibility of funds has constrained the improvement of rail transportation. To achieve a balanced transportation system, more flexibility for the transportation funds may be necessary.

Oversight responsibilities must be reviewed. Where State funds are expended, the State has no authority to assess the appropriateness of the project on which State funds are spent. In fact, the 580 review process for public mass transit guideway projects provides the California Department of Transportation (Caltrans) authority for reviewing and approving such matters as the project financing plan, the project development schedule and the management control systems, but prohibits consideration of the project's actual location and design, actual transport ability or service features. Proposition 116, while providing substantial capital funds, assigns the evaluation of rail and other projects to the California Transportation Commission while Proposition 108 and Transit Capital Improvement projects are evaluated by Caltrans.

The distinction between intercity and commuter service is less clear as our metropolitan areas expand. For example, if lanes were to be added to Routes 101 and 280, which parallel the San Francisco Peninsula Commute Service, the congestion reduction would be primarily commuter relief, rather than intercity travel relief. The urban congestion on the State highway system is due to commuter and local travel, rather than intercity travel. Addition of lanes in a metropolitan area is an expenditure of highway funds for commuter and local travel.

There are other circumstances that impede the development of rail systems to which simple solutions are unapparent. One is the fact that the developed rail rights-of-way are privately owned. It is necessary to deal with railroads when

negotiating for joint use of trackage or purchase of rights-of-way. Other choices for rights-of-way are few.

The success of the State-supported Amtrak *San Diegans* between Los Angeles and San Diego is proof that adequate funding and authority will produce effective service. In addition, the State-supported Amtrak *San Joaquin* service through the Central Valley is growing in ridership at a remarkable rate. Aggressive support, funding and authority will be necessary to establish the commuter, urban and additional intercity service that the California taxpayer voted for on June 5, 1990.

Despite the impediments to a new era of rail transportation, actions by the Executive and Legislative arms of California government can ease some of the constraints and streamline the process from planning to construction. Then the goal of a balanced transportation system, where each mode of travel provides its greatest potential, will appear within reach.

THE STATUTORY REQUIREMENT FOR THE RAIL PASSENGER DEVELOPMENT PLAN

Section 14036 of the Government Code requires Caltrans to prepare a five year "Rail Passenger Development Plan".

AB 3736 (Chapter 1490, Statutes of 1990) amended this Section to provide for a biennial Plan, rather than an annual Plan, and added a provision requiring a report of expenditure of funds for media advertising of rail passenger services. The current provisions of Section 14036 are as follows:

> *14036. The department shall prepare a rail passenger development plan biennially for submission to the Legislature, the Governor, the Public Utilities Commission, and the California Transportation Commission. The plan shall be submitted to the commission by April 1, 1991, and each odd-numbered year thereafter, for its advice and consent, and to the Legislature, the Governor, and the Public Utilities Commission by the following July.*
>
> *1. The plan shall consist of all of the following:*
>
> *(a) For capital and operating subsidies, all actual encumbrances for the prior two fiscal years; and for state operations, all actual expenditures for the prior two fiscal years. All revenues shall be identified by source.*
>
> *(b) For capital and operating subsidies, estimated encumbrances and revenues for the current year; and for state operations, estimated expenditures for the current year. The department shall use the same format as is required for prior year expenditures pursuant to subdivision (a).*
>
> *(c) For the budget year and the four following fiscal years, proposed encumbrances for capital and operating subsidies shall be reported in*

the same format as is required for prior year's expenditures. For state operations, proposed expenditures for the budget year shall be reported.

(d) The identification and cost of capital facilities necessary to enhance competitiveness of rail passenger services, including, for each intercity route, a list of at least the three highest priority capital improvement projects, with cost estimates and a funding plan.

(e) A performance evaluation of all services in operation, including performance trends, potential for efficiency and effectiveness, possible improvements, and strategies to achieve that potential.

(f) A recommendation of a level of and program for services over a five-year period, including a list of service enhancements on existing and additional routes, with funding and priority recommendations.

(g) An evaluation of reports by regional planning agencies and county transportation commissions on commuter service alternatives in their regions, including presentation of their recommendations.

(h) A map showing all existing intercity and commuter passenger rail routes and services, all proposed intercity and commuter passenger rail routes and services, and all intercity and commuter passenger rail routes and services that are the subject of feasibility studies.

(i) A report on the expenditure of marketing activities funds for purchases of media advertising of rail passenger services.

This report shall be prepared in consultation with the Public Utilities Commission and the National Rail Passenger Corporation. The department may consult with other agencies, organizations, and persons with expertise. The department shall employ realistic assumptions, using Public Utilities Commission cost data whenever possible, with respect to the level of services it can provide and the cost of these services when developing the plan.

Chapter II - The California Rail Network

AMTRAK BASIC SYSTEM SERVICES

At present, Amtrak operates "basic system" trains over six routes in California. The *San Diegan* route is wholly within the State and is supplemented with State-supported service. The other five are interstate routes which provide varying levels of intrastate service in California. Figure 1 in the Key Maps section illustrates California's portion of the Amtrak system. Figure 12 is a list of all Amtrak stations in the State together with their total 1989/90 ridership.

The following paragraphs briefly describe the various "basic system" trains in California and their significance to the State's transportation needs. (California's State-supported trains are the subject of Chapters III and IV of this report.) Ridership figures are for the Amtrak fiscal year ending September 30, 1990, and include all riders on the trains, not just those in California.

The *Coast Starlight* (Los Angeles-Oakland-Sacramento-Seattle)

The *Coast Starlight* is the most popular long distance train in the Amtrak system. For many years demand has often outstripped capacity during summer and holiday travel periods. Ridership in Fiscal Year 1989/90 totalled 596,400 which is 4.9 percent greater than the previous year--an average of 817 passengers on and off per train. In peak months, the *Starlight* averages over 1,000 passengers on and off per train. Amtrak's new order of Superliner cars will allow a modest capacity increase on Amtrak's long distance routes, such as the *Starlight.*

The *Coast Starlight* serves many major urban areas in California and the Pacific Northwest, and a substantial portion of its ridership is generated by intrastate California travel. Direct connections with the *San Diegans* at Los Angeles effectively extend the route south to San Diego. A connection with the *San Joaquins* at Martinez provides Valley access for travelers to and from the north.

Although the State has no direct involvement in the operation of the *Coast Starlight,* Caltrans has suggested schedule modifications from time to time. Also, State-funded intermodal facilities are being developed at several stops along its route.

The *California Zephyr* (San Francisco-Denver-Chicago)

The *California Zephyr* provides local service in the San Francisco-Sacramento-Reno corridor, and extra coaches are often carried on this portion of the route to handle heavy loads to and from Reno. A stop in Truckee serves Lake Tahoe and nearby Sierra ski areas.

CALIFORNIA AMTRAK STATIONS, FISCAL YEAR 1989/90

Rank	Station	County	FY 1989/90 Ridership	Trains Served	Ticket Agent	Checked Baggage
1	Los Angeles (Union Station)	Los Angeles	1,401,582	CS DW SC SD SJb SL	Yes	Yes
2	San Diego	San Diego	754,265	SD SJb	Yes	Yes
3	Oceanside	San Diego	366,449	SD SJb	Yes	Yes
4	Fullerton	Orange	327,830	DW SD	Yes	Yes
5	San Juan Capistrano	Orange	317,252	SD SJb		
6	Del Mar	San Diego	299,602	SD	Yes	Yes
7	Santa Ana	Orange	297,627	SD SJb	Yes	Yes
8	Anaheim	Orange	189,482	SD	Yes	Yes
9	San Francisco	San Francisco	150,134	CSb CZb PCS SJb	Yes	Yes
10	Fresno	Fresno	140,962	SJ	Yes	
11	Sacramento	Sacramento	140,061	CS CZ SJb	Yes	Yes
12	Martinez	Contra Costa	138,961	CS CZ SJ	Yes	Yes
13	Oakland	Alameda	133,598	CS CZ SJ	Yes	Yes
14	Santa Barbara	Santa Barbara	96,126	CS SD SJb	Yes	Yes
15	Bakersfield	Kern	80,562	SJ DWb SDb	Yes	
16	Hanford	Kings	64,411	SJ	Yes	
17	San Jose	Santa Clara	61,727	CS PCS SJb	Yes	Yes
18	Oxnard	Ventura	52,750	CS SD SJb	Yes	Yes
19	Stockton	San Joaquin	52,248	SJ	Yes	
20	Merced	Merced	50,109	SJ	Yes	
21	Glendale	Los Angeles	49,389	CS SD SJb	Yes	Yes
22	San Luis Obispo	San Luis Obispo	45,630	CS	Yes	Yes
23	San Bernardino	San Bernardino	40,600	DW SC SJb	Yes	Yes
24	Riverbank	Stanislaus	35,478	SJ	Yes	
25	Richmond	Contra Costa	29,448	CS CZ SJ	Yes	
26	Salinas	Monterey	27,542	CS	Yes	Yes
27	Van Nuys (two stops)	Los Angeles	22,946	SD SJb		
28	Simi Valley	Ventura	22,119	CS SD SJb		
29	Pasadena	Los Angeles	21,877	SC SDb SJb	Yes	Yes
30	Davis	Yolo	21,746	CS CZ SJb	Yes	Yes
31	Pomona (2 stations)	Los Angeles	17,583	SC SJb SL	Yes	Yes
32	San Clemente	Orange	14,338	SD		
33	Chatsworth	Los Angeles	14,131	SD SJb		
34	Redding	Shasta	11,716	CS		
35	Chico	Butte	10,645	CS SJb		
36	Antioch-Pittsburg	Contra Costa	9,938	SJ		
37	Barstow	San Bernardino	9,695	DW SC SJb		
38	Wasco	Kern	9,361	SJ		
39	Turlock-Denair	Stanislaus	8,570	SJ		
40	Truckee	Nevada	7,615	CZ		
41	Madera	Madera	7,272	SJ		
42	Berkeley	Alameda	6,661	SJ		
43	Corcoran	Tulare	6,465	SJ		
44	Santa Rosa	Sonoma	5,756	SJb		
45	Visalia	Tulare	5,627	SJb		
46	Colfax	Placer	4,989	CZ		
47	Long Beach	Los Angeles	4,738	SJb		
48	Vallejo-Marine World	Solano	4,145	SJb		

Figure 12. Amtrak Stations in California

CALIFORNIA AMTRAK STATIONS, FISCAL YEAR 1989/90

Rank	Station	County	FY 1989/90 Ridership	Trains Served	Ticket Agent
49	Marysville	Yuba	4,030	CS SJb	
50	Roseville	Placer	4,009	CZ	
51	Irvine	Orange	4,008	SD	
52	Riverside	Riverside	3,600	SJb	
53	Dunsmuir	Siskiyou	3,411	CS	
54	Needles	San Bernardino	3,063	SC	
55	Suisun-Fairfield	Solano	2,867	CZ	
56	Thousand Oaks	Ventura	2,816	SDb SJb	
57	Napa	Napa	2,402	SJb	
58	Burbank Airport (3 months)	Los Angeles	1,824	SD SJb	
59	Indio	Riverside	1,742	SL SJb	
60	Torrance	Los Angeles	1,712	SJb	Yes
61	Santa Clarita-Saugus	Los Angeles	1,650	SDb SJb	
62	Ventura	Ventura	1,587	SDb SJb	
63	Mojave	Kern	1,432	DWb SJb	
64	Palm Springs (11 months)	Riverside	1,070	SJb	
65	Petaluma	Sonoma	1,008	SJb	
66	Rohnert Park	Sonoma	843	SJb	
67	Livermore	Alameda	805	SJb	
68	Santa Monica	Los Angeles	778	SJb	
69	Porterville	Tulare	720	SJb	
70	Oroville	Butte	601	SJb	
71	Woodland	Yolo	587	SJb	
72	West Los Angeles	Los Angeles	577	SJb	
73	Lancaster (6 months)	Los Angeles	532	SDb SJb	
74	Hollywood	Los Angeles	317	SJb	
75	Palmdale (6 months)	Los Angeles	264	SDb SJb	
76	Calexico (11 months)	Imperial	203	SDb	
77	El Centro (11 months)	Imperial	125	SDb	
78	El Monte (6 months)	Los Angeles	75	SJb	
79	Tehachapi (6 months)	Kern	74	SJb DWb	
80	Palm Desert (11 months)	Riverside	69	SJb	
81	Whittier (6 months)	Los Angeles	65	SJb	
82	Yosemite Natl. Park (6 mo.)	Mariposa	64	SJb	
83	El Cajon (11 months)	San Diego	56	SDb	

Train Key:

CS = Coast Starlight (Los Angeles-Seattle)
CZ = California Zephyr (Oakland-Chicago)
DW = Desert Wind (Los Angeles-Salt Lake City)
PCS = Peninsula Commute Service connection
(PCS ridership not included in total)
SC = Southwest Chief (Los Angeles-Chicago)
SD = San Diegan (Los Angeles-San Diego)
SJ = San Joaquin (Oakland-Bakersfield)
SL = Sunset Limited (Los Angeles-New Orleans)

'--b' = dedicated connecting bus

* Includes only ridership on the Yosemite-Fresno Amtrak feeder bus link; riders on the Yosemite-Merced bus link operated by Yosemite Gray Lines are interline passengers and included in ridership at Merced.

Official Amtrak ridership data for Federal fiscal year (October thru September).

Ridership on the *California Zephyr* was 414,300 in 1989/90, up 1.6 percent from 1988/89. These figures do not include passengers in Chicago-Seattle and

Chicago-Los Angeles through cars carried in the train east of Salt Lake City. A new stop at Roseville was instituted in October of 1987.

The *Desert Wind* (Los Angeles-Salt Lake City)

The *Desert Wind* serves Las Vegas and provides an alternate transcontinental routing between Los Angeles and Chicago, via a connection with the *California Zephyr* in Utah.

Desert Wind ridership totalled 159,000 in Fiscal Year 1989/90 including through passengers to and from points east of Salt Lake City, a 0.9 percent decrease from the previous year.

The *Southwest Chief* (Los Angeles-Chicago)

The *Southwest Chief* provides access to the Grand Canyon at Flagstaff, as well as the only direct rail service from California to Kansas City. In California, the *Southwest Chief* and the *Desert Wind* together provide local service between Los Angeles, San Bernardino and Barstow. Fiscal year 1989/90 ridership on the entire *Southwest Chief* route totalled 289,700, an increase of 2.5 percent.

The *Sunset Limited* (Los Angeles-New Orleans)

The *Sunset Limited* operates three days a week in each direction and connects California to most of the major cities of the Sun Belt. California and the other four states on the route have urged Amtrak to operate daily service on this route for years, but Amtrak's position is that they do not have sufficient equipment to implement daily operation. However, Amtrak has new Superliner cars (and locomotives) on order, and advises that daily operation of the *Sunset* will be seriously considered after all new equipment is delivered.

The train provides service to Dallas, St. Louis and Chicago via a connection with the *Texas Eagle* at San Antonio. A through sleeping car is operated between Los Angeles and Chicago via this route. Ridership in FY 1989/90 totalled 107,400, down 6.3 percent from the previous year.

The *San Diegans* (Santa Barbara-Los Angeles-San Diego)

The *San Diegan* route has become one of the most successful rail passenger corridors in the United States. Four of the eight daily round trips between Los Angeles and San Diego are supported by California under the provisions of Section 403(b) of the Amtrak Act. The first round trip was extended to Santa Barbara in June of 1988, and the second began service in October 1990. Both of the Santa Barbara round trips are State-supported. Chapter III of this report discusses this route in detail.

STATE-SUPPORTED AMTRAK SERVICES

Supplementing the "basic system" routes in the nationwide Amtrak network are a number of State-supported trains operated under the authority of Section 403(b) of the Amtrak Act. This section authorizes Amtrak to operate intercity rail passenger service beyond that included in its basic system schedule when requested to do so by a state or group of states, a regional or local agency, or any other person or entity, provided that the requesting party agrees to repay Amtrak for a specified portion of the cost of the service, and providing that Amtrak has its share of resources available. The portion to be repaid has been changed by Congress from time to time; at the present time, states (or other parties) are required to pay at least 45 percent of the short-term avoidable (STA) loss in a train's first year of operation and at least 65 percent of the STA loss in subsequent years, plus at least 50 percent of associated capital costs (including equipment depreciation and interest charges). The remaining shares are covered by Amtrak. All references to cost shares for operations and farebox ratios in this Plan reflect short-term avoidable costs.

In August 1989, Amtrak issued a revised policy for new 403(b) services. The policy noted that Amtrak continues to operate under "austere budget constraints" and that Amtrak must work to reduce its need for Federal funds and to improve its ratio of revenues to costs. Amtrak concluded that they will pay their share of the costs of such trains if the states will provide 45 percent of the long-term avoidable loss for the first year of operation and 65 percent thereafter. Under such a basis, state expense could increase substantially in order to cover the increase from a short-term to a long-term cost basis. Also, if Amtrak cannot make existing equipment available (based on the location of any particular proposal), the states have to supply any needed cars or locomotives in view of Amtrak's serious equipment shortage.

At the present time, nine states (Alabama, California, Illinois, Michigan, Missouri, New York, North Carolina, Pennsylvania and Wisconsin) are supporting Amtrak service under the 403(b) program. Section 403(b) is of great importance to California, as Caltrans currently sponsors "403(b)" service on two routes within the State and has studied or proposed service on a number of additional routes. The two existing State-supported services, the *San Diegans* and the *San Joaquins*, are discussed individually in Chapters III and IV of this Plan.

CALIFORNIA WESTERN RAILROAD

Non-Amtrak passenger services remain subject to the regulatory jurisdiction of the California Public Utilities Commission and/or the Interstate Commerce Commission, just as it was before Amtrak was formed. At the present time there is only one such service operating in California, that of the California Western Railroad (CWR) between Fort Bragg and Willits in Mendocino County. This service, which has been operating for over seventy years, currently consists of

one round trip operating on a daily basis year-round (except for three holidays), usually utilizing one of the vintage railcars that gave the line its *Skunk* nickname. In addition to providing basic transportation to an isolated area not served by a highway, this service is very popular with tourists and vacationers, and since 1965 the CWR has been operating steam and diesel powered *Super Skunk* excursion trains in the summer.

COMMUTER SERVICES

Two commuter rail services currently operate in California. One is the Peninsula Commute Service, which operates 54 trains on weekdays between San Francisco and San Jose. A reduced schedule is operated on weekends. This service is reviewed in Chapter IX of this Plan. The other is Orange County Commuter Rail, which operates one weekday trip between Los Angeles and San Juan Capistrano (see Chapter X of this Plan).

Chapters IX and X also discuss the status of proposed new commuter rail services in Northern and Southern California respectively.

DEFINITION OF COMMUTER VERSUS INTERCITY RAIL SERVICE

California State law defines "commuter passenger rail" and "intercity rail" in the following Streets and Highways Code sections:

- Section 164.50(d): *"Commuter passenger rail" has the same meaning as the term "commuter service" as defined in the Rail Passenger Service Act (45 U.S.C. Sec. 502(9), and as described in Penn Central Transp. Co. Discontinuance, 338 ICC 318.*
    - The Rail Passenger Service Act section cited states that: *"Commuter service" means short-haul rail passenger service operated in metropolitan and suburban areas...usually characterized by reduced fare, multiple-ride and commutation tickets and by morning and evening peak period operations.*
    - The Penn Central Transportation Company Discontinuance decision cited was issued by the Interstate Commerce Commission (ICC) after a 1971 investigation held to determine whether certain trains constituted commuter service, thus placing them outside the jurisdiction of Amtrak, which at the time had just been created. Specifically, the ICC concluded that a commuter service...

      would likely include some or all of the following features...:

      (1) The passenger service is primarily being used by patrons traveling on a regular basis either within a metropolitan area or between a metropolitan area and its suburbs;

(2) *The service is usually characterized by operations performed at morning and evening peak periods of travel;*

(3) *The service usually honors commutation or multiple-ride tickets at a fare reduced below the ordinary coach fare and carries the majority of its patrons on such a reduced fare basis;*

(4) *The service makes several stops at short intervals either within a zone or along the entire route;*

(5) *The equipment used may consist of little more than ordinary coaches;*

(6) *The service should not extend more than 100 miles at the most, except in rare instances; although service over shorter distances may not be commuter or short haul within the meaning of the exclusion.*

Any service not meeting these criteria would be considered intercity in nature.

- Section 164.55(d): *"Intercity rail" has the same meaning as the term "intercity rail passenger service" as defined in the Rail Passenger Service Act (45 U.S.C. Sec. 502(11)).*
  - The Rail Passenger Service Act section cited states that: *Intercity rail passenger service means all rail passenger service other than commuter service.*
  - Thus, both the Rail Passenger Service Act and the ICC specifically defined commuter rail service in the manner detailed above, and stated that intercity rail service is all other service not falling within the commuter rail definition.

THE STATE'S ROLE IN RAIL PASSENGER SERVICE

Intercity Services

Intercity train routes operate largely between several regions of the State. Services for these routes are planned and administered at the State level. Local and regional planning agencies are encouraged to share their ideas and concerns regarding service to their respective areas. In California, all State-supported intercity rail service is currently operated by Amtrak under the provisions of Section 403(b) of the Amtrak Act.

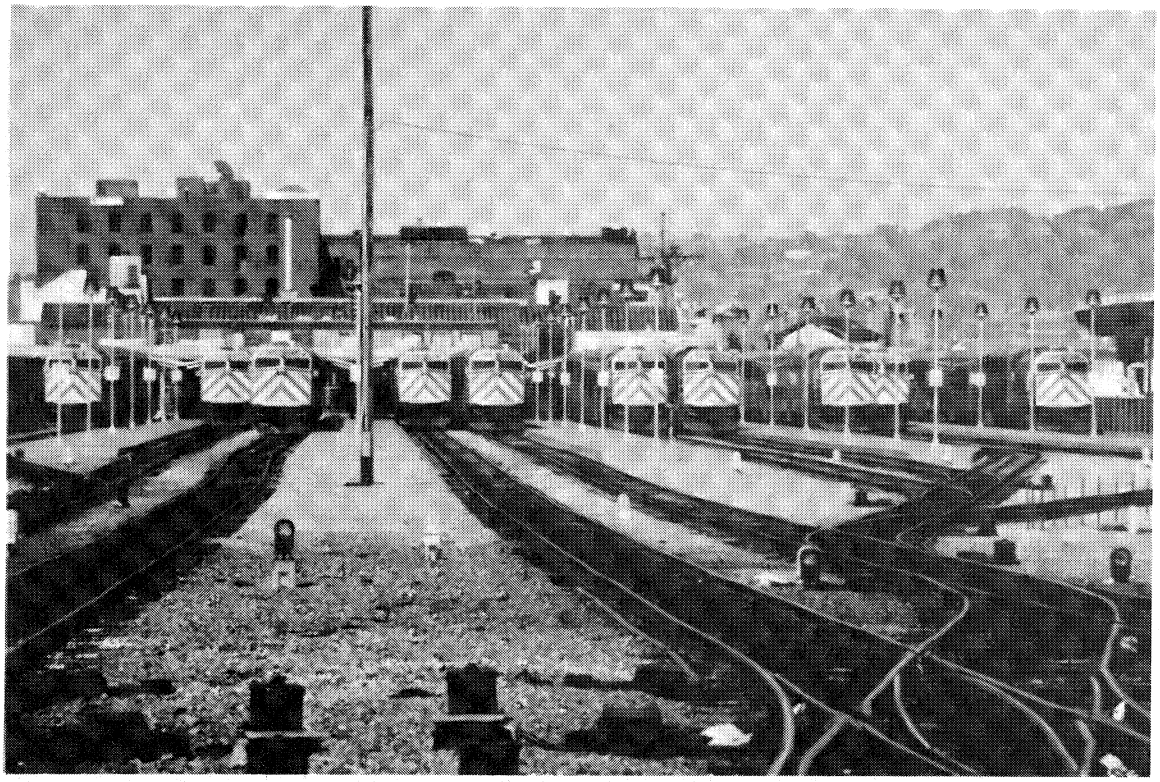
Caltrans intercity services are components of the State's overall transportation system. Services intended to meet primarily local needs are developed as commuter services rather than intercity.

State law provides that continued State funding requires intercity services to annually recover at least 55 percent of their operating cost from farebox revenues beginning in their third year of operation.

Commuter Services

Commuter services primarily serve local and regional transportation needs. They are the responsibility of local and regional transportation agencies. The exception to this principle is the San Francisco Peninsula corridor where, at the direction of the Legislature, Caltrans assumed the lead role with the support of the local transit agencies. Under legislation enacted in October 1989, the State is authorized to continue to provide operating funds for this corridor until July 1993. By law, continued State funding for commuter rail service is limited to services which recover at least 40 percent of operating cost from farebox revenues by their third year of operation.

Federal Urban Mass Transportation Administration (UMTA) funds may be available for commuter services once the service is established. Also, commuter rail services are eligible to compete for available State funding through the Transit Capital Improvement (TCI) Program and, in most cases, will be eligible for State rail bond funds for capital projects.



Peninsula Commute Service trains awaiting departure from the San Francisco terminal.

Chapter III - The San Diegans (Santa Barbara-Los Angeles-San Diego)

OBJECTIVES

The State's objectives on this route are to:

- Increase ridership and revenues
- Increase revenue/cost (farebox) ratio
- Increase frequency of service
- Reduce train running times
- Improve reliability (on-time performance) of trains

BACKGROUND

Historically, the Santa Barbara-Los Angeles-San Diego corridor has been broken into two parts, since the rail lines north and south of Los Angeles were owned and operated by separate railroad companies. However, in planning for improved passenger rail service in Southern California, Caltrans views the Santa Barbara-Los Angeles-San Diego route as one continuous travel corridor.

When established in May 1971, Amtrak maintained the same level of service that had been provided previously by the railroads. The Santa Barbara-Los Angeles segment was served by the Seattle-Los Angeles *Coast Starlight.* The Los Angeles-San Diego portion was served by two daily *San Diegan* round trips, plus tri-weekly train connections with the *Coast Starlight.* Later in 1971, this third train began daily operations. For the next five years, this three-train service functioned primarily as connections to long-haul trains at Los Angeles.

On September 1, 1976, a State-supported train was added to the Los Angeles-San Diego portion of the route. A second State-supported train was instituted on April 24, 1977, and a third on February 14, 1978, for a total of six round trips per day between Los Angeles and San Diego. On October 26, 1980 a seventh *San Diegan* was added by Amtrak.

Service between Los Angeles and Santa Barbara was increased to two round trips per day on October 25, 1981, with the addition of the State-supported *Spirit of California,* which operated in the corridor as part of its Los Angeles-Sacramento route. Ridership on the train did not reach acceptable levels, and it was discontinued on October 1, 1983.

On August 12, 1985, new service between Los Angeles and Santa Barbara was instituted in the form of dedicated bus connections to the *San Diegans.* On October 25, 1987, an eighth Los Angeles-San Diego round trip was added. On June 26, 1988, the Santa Barbara-Los Angeles-San Diego corridor was unified with the extension of one *San Diegan* round trip north to Santa Barbara. A second

train was extended to Santa Barbara on October 28, 1990. The eighth train and the extensions to Santa Barbara are all State-supported services.

The performance of the *San Diegan* route has continued to improve with increased train service, the extensions to Santa Barbara and increased marketing efforts. With these improvements and the others discussed in this Chapter, ridership and revenues should continue to increase, and the revenue/cost ratio, which has reached 103.6 percent, should continue to greatly exceed the 55 percent requirement.

Figure 2 in the Key Maps section pictures the route, including the Santa Barbara extensions and the connecting bus services that are described in Chapter V.

OPERATIONAL AND SERVICE IMPROVEMENTS

Santa Barbara Extension

The *San Diegan* corridor has been extended north to Santa Barbara by operating two daily round-trips beyond Los Angeles.

The first Santa Barbara extension (which began service on June 26, 1988), scheduled as a morning departure from Santa Barbara, assumed the schedule of the mid-morning southbound *San Diegan* south of Los Angeles. Returning, the late afternoon departure from San Diego arrives in Santa Barbara in the late evening. In addition to serving the existing Amtrak stations in Oxnard, Simi Valley and Glendale utilized by the *Coast Starlight,* the train makes three intermediate stops at Chatsworth, Van Nuys-Panorama City and Burbank Airport. Also, a new stop at Ventura is planned (see the New Stops section below).

The second Santa Barbara extension (which began service on October 28, 1990) departs Santa Barbara in mid-afternoon and continues on from Los Angeles to San Diego in the early evening. Northbound, the new train is an extension of the first morning departure from San Diego, arriving in Santa Barbara in the late morning. Stops made are the same as mentioned above. The second train offers same day return trips from points between San Diego and Fullerton to destinations from Glendale through Santa Barbara. It also allows passengers from Burbank Airport, Van Nuys and Chatsworth wishing to use the *Coast Starlight* northbound to connect to that train in Oxnard.

To allow the start-up of the second Santa Barbara extension, Caltrans and Amtrak reached an agreement on outstanding cost issues. Amtrak agreed to combine the financial results of the second Santa Barbara train with those of all other State-supported *San Diegan* trains for billing purposes. Caltrans agreed to accept billings for this new train based on long-term avoidable costs.

Additional Stops

Stops added to the *San Diegan* route are discussed below.

Anaheim: Adjacent to the Anaheim Stadium and near Disneyland, this fully staffed stop opened on October 30, 1983, and now serves all *San Diegan* trains.

Burbank Airport: Near the Burbank Airport, this stop opened on June 1, 1990. It was originally constructed for the Los Angeles-Oxnard commute service in 1982. The City of Burbank has arranged for a shuttle bus to connect the Airport Terminal with train arrivals and departures at the station and for parking facilities.

Chatsworth: This stop, located at the west end of the San Fernando Valley, was instituted in conjunction with the start-up of the Santa Barbara extension of the *San Diegan* route on June 26, 1988. It is also served by *San Diegan* connecting buses.

Commerce: An element of the LOSSAN I Rail Upgrade project was the establishment of a new station in southeastern Los Angeles County. Upon completion, expected in 1991, the Commerce station will be served by three *San Diegan* trains in each direction.

Irvine: The City of Irvine developed a new intermodal facility, which opened on June 1, 1990. It is served by two *San Diegan* trains in each direction.

Simi Valley: The City of Simi Valley constructed a new intermodal facility, which opened on October 26, 1986, to serve the *Coast Starlight.* On June 26, 1988, the station received *San Diegan* train service with the route's extension to Santa Barbara.

Solana Beach: An element of the LOSSAN I Rail Upgrade project was the relocation of the Del Mar station. A new multi-use intermodal and retail facility in Solana Beach, approximately 2.6 miles north of the existing Del Mar station, will open in conjunction with the start-up of the Oceanside/San Diego commuter rail service in late 1992. On January 3, 1990, the Los Angeles-San Diego Rail Corridor Agency voted to support Solana Beach as the location of the mid-San Diego County full service intercity rail station. It will be served by the *San Diegan* trains, the Oceanside/San Diego commuter trains and North San Diego County Transit Buses.

Van Nuys-Panorama City: Located in the central San Fernando Valley, this stop was instituted with the extension of the *San Diegan* train to Santa Barbara on June 26, 1988. This station is located at a former Oxnard commuter service station. Caltrans has funded and is working with Amtrak to construct a full-service staffed station building at this stop to serve the *San Diegans,* as well as *San Diegan* and *San Joaquin* connecting buses.

Ventura: The City of San Buenaventura plans to construct a Ventura Amtrak station to serve the *San Diegan* route, with completion planned for 1991.

Handicapped accessibility is provided by the use of wheelchair lifts at all staffed *San Diegan* route stations.

Fares

Following requests by Caltrans, in 1985 Amtrak introduced a seven dollar return fare (round trip for seven dollars more than one way) on the *San Diegan* route. This fare had been very successful in stimulating ridership and revenue growth on the *San Joaquin* route, where it was first introduced in 1983. While not as much of a discount on the *San Diegans,* the seven dollar return provides the most attractive fare that has been available on the route in many years and has contributed to sustained, strong ridership growth.

In October 1990, a one-day round-trip excursion fare program was instituted between points on the Los Angeles-Santa Barbara segment of the *San Diegan* route. (The fares also apply for travel between points on this segment, on the one hand, and points south of Los Angeles, on the other hand). This new fare offers a round-trip for only one dollar more than the one-way fare if all travel is made on the same day. It is intended to encourage discretionary trips to tourist attractions, such as Disneyland.

Effective April 1, 1991, Amtrak instituted a new policy providing half-fare travel to children 2 through 15 years of age. This fare change will make rail service more competitive with the automobile for family travel.

Custom Class

Custom class offers a reserved seat with complimentary beverages and newspapers for a nominal extra charge on all *San Diegan* trains. With the extension of *San Diegan* service to Santa Barbara, custom class was offered for the first time in the Los Angeles-Santa Barbara corridor. During the second year of Santa Barbara service (July 1989 through June 1990), custom class was used by 18.7 percent of all riders between Santa Barbara and Los Angeles.

Push-Pull Operation

On October 25, 1987, Amtrak converted the *San Diegans* to push-pull operation, a system in which the locomotive remains at the same end of the train regardless of the direction of travel. In one direction the train is pulled in the conventional manner by the locomotive, but in the other direction the train is operated from a "cab-control" compartment in the end coach, with the locomotive "pushing" the train from behind. This system eliminated the need to turn trains around at each end of the line, thereby saving switching costs and reducing turnaround times between schedules. This, in turn, permitted the eighth round trip to be established without requiring additional equipment in addition to allowing the extension of one round trip to Santa Barbara without having to construct expensive turnaround facilities at the north end of the line.

MARKETING AND PUBLIC RELATIONS

Since the *San Diegan* route is part of Amtrak's basic system, not all the trains on the route are supported by the State. As a result, Caltrans and Amtrak jointly agree upon overall marketing goals for the *San Diegan* and then divide the strategies and campaigns. Like Amtrak, Caltrans uses the services of private advertising and public relations companies to actually implement its marketing plans. Caltrans current marketing consultant is MacDaniels, Henry and Sproul of San Francisco.

In Fiscal Year 1990/91 Amtrak is providing television advertising directed specifically to the *San Diegans.* In addition, Amtrak has scheduled $350,000 in newspaper advertising for early 1991. Caltrans will also continue with its program, which consists of radio and newspaper ads. Specific promotions focus on the second daily round-trip *San Diegan* to Santa Barbara, Hispanic radio for the Calexico feeder bus, the special $1.00 return on a same day round-trip fare and the custom class upgrade coupon.

Fiscal Year 90/91 planned Caltrans media expenditures for the *San Diegan* are:

Newspaper	$199,000
Radio	$375,000
Total	$574,000

Caltrans also supports Amtrak service in California by publication of a full color "California Amtrak Timetable" which is distributed at Amtrak stations, travel agencies and travel literature racks. The newsletter "Making Tracks" is also published quarterly for distribution at all stations and at promotional events.

PERFORMANCE

In the 1989/90 fiscal year, the four State-supported *San Diegan* round trips carried about 50 percent of the route's total ridership. The farebox ratio for the State-supported trains has increased from 50.8 percent in the 1978/79 fiscal year (the first full year with three such trains) to 103.6 percent in the 1989/90 fiscal year.

Nearly 101,000 passengers rode the Santa Barbara extension of the *San Diegan* route in the second full year of operation (July 1989 through June 1990). Although full year results were almost unchanged from the first year, ridership grew significantly in the latter half of the second year. Ridership in the initial six months of the first year was high due to the large number of "trial" riders at the outset of service.

Figure 13 lists actual monthly ridership figures for fiscal years 1983/84 through 1989/90, as well as the percent change from one year to the next. Figure 14 lists actual monthly ridership figures for the Santa Barbara extension of the *San Diegan* trains. Figure 15 lists *San Diegan* ridership by station, including connecting bus stops, for the 1989/90 fiscal year. Figure 16 is a table showing ridership and financial performance data on an annual basis since 1974. Figure 3, in the Key

Maps and Ridership Graphs section, is a graphical illustration of actual and average monthly ridership.

Projected funding levels for the State-supported trains over the next five years are shown in Table II of Chapter XI of this report. They include projections for Caltrans proposed ninth and tenth round-trips between Los Angeles and San Diego and for the proposed third and fourth Santa Barbara extensions of *San Diegan* round-trips. The projections reflect the cost increase that resulted from an agreement between Amtrak and Santa Fe which provides for an "incentive clause" under which Santa Fe receives additional payments from Amtrak for maintaining a specified level of on-time performance. (Santa Fe is one of the few railroads that did not have such an agreement with Amtrak.)

SAN DIEGAN MONTHLY RIDERSHIP

Month	FY 83/84 Route Riders	FY 84/85 Route Riders	Percent Change	FY 85/86 Route Riders	Percent Change	FY 86/87 Route Riders	Percent Change	FY 87/88 Route Riders	Percent Change	FY 88/89 Route Riders	Percent Change	FY 89/90 Route Riders	Percent Change
July	119,676	118,110	-1.3%	133,489	13.0%	140,333	5.1%	149,180	6.3%	175,106	17.4%	158,536	-9.5%
August	133,469	134,168	0.5%	153,652	14.5%	167,214	8.8%	178,100	6.5%	191,203	7.4%	181,349	-5.2%
September	92,451	93,952	1.6%	108,576	15.6%	109,731	1.1%	128,043	16.7%	137,935	7.7%	140,606	1.9%
October	77,324	82,017	5.7%	96,935	18.2%	103,905	7.2%	110,247	6.1%	131,092	18.9%	122,993	-6.2%
November	96,827	91,153	-6.2%	101,943	11.8%	110,165	8.1%	123,044	11.7%	135,409	10.0%	132,761	-2.0%
December	89,613	83,730	-7.0%	103,539	23.7%	105,257	1.7%	117,716	11.8%	118,649	0.8%	125,858	6.1%
January	81,704	87,192	6.3%	101,619	16.5%	101,688	0.1%	117,424	15.5%	118,173	0.6%	120,935	2.3%
Febuary	85,812	86,096	0.3%	94,769	10.1%	98,312	3.7%	126,884	29.1%	117,970	-7.0%	121,901	3.3%
March	101,205	104,583	3.2%	123,116	17.7%	115,186	-6.4%	146,888	27.5%	146,397	-0.3%	161,214	10.1%
April	107,786	109,319	1.4%	113,077	3.4%	127,117	12.4%	146,716	15.4%	140,552	-4.2%	161,550	14.9%
May	113,867	119,188	4.5%	131,152	10.0%	138,994	6.0%	157,270	13.1%	156,734	-0.3%	158,773	1.3%
June	121,522	130,495	6.9%	132,453	1.5%	143,101	8.0%	160,000	11.8%	148,319	-7.3%	160,197	8.0%
Fiscal Year Total	1,221,256	1,240,003	1.5%	1,394,320	12.4%	1,461,003	4.8%	1,661,512	13.7%	1,717,539	3.4%	1,746,673	1.7%
Monthly Average	101,771	103,334	1.5%	116,193	12.4%	121,750	4.8%	138,459	13.7%	143,128	3.4%	145,556	1.7%

Figure 13. San Diegan Monthly Ridership

RIDERSHIP - SANTA BARBARA EXTENSION OF SAN DIEGAN ROUTE										
	TRAIN 774 SOUTHBOUND			TRAIN 783 NORTHBOUND			TOTAL			CHANGE FROM PRIOR YEAR
MONTH	CUSTOM	COACH	TOTAL	CUSTOM	COACH	TOTAL	CUSTOM	COACH	TOTAL	
Jul-88	1,179	4,889	6,068	1,291	4,437	5,728	2,470	9,326	11,796	
Aug-88	1,225	5,052	6,277	1,269	4,591	5,860	2,494	9,643	12,137	
Sep-88	930	2,906	3,836	946	3,044	3,990	1,876	5,950	7,826	
Oct-88	866	2,843	3,709	819	3,079	3,898	1,685	5,922	7,607	
Nov-88	969	3,645	4,614	808	3,452	4,260	1,777	7,097	8,874	
Dec-88	964	3,779	4,743	831	2,260	3,091	1,795	6,039	7,834	
Jan-89	602	2,098	2,700	640	2,418	3,058	1,242	4,516	5,758	
Feb-89	753	2,579	3,332	713	2,722	3,435	1,466	5,301	6,767	
Mar-89	959	3,392	4,351	868	3,009	3,877	1,827	6,401	8,228	
Apr-89	864	3,484	4,348	767	3,308	4,075	1,631	6,792	8,423	
May-89	846	3,435	4,281	817	3,266	4,083	1,663	6,701	8,364	
Jun-89	892	3,001	3,893	811	2,900	3,711	1,703	5,901	7,604	
FY 88/89 TOTAL	11,049	41,103	52,152	10,580	38,486	49,066	21,629	79,589	101,218	
Jul-89	1,001	3,760	4,761	981	3,580	4,561	1,982	7,340	9,322	-21.0%
Aug-89	1,136	4,626	5,762	1,061	4,157	5,218	2,197	8,783	10,980	-9.5%
Sep-89	782	3,069	3,851	787	2,899	3,686	1,569	5,968	7,537	-3.7%
Oct-89	726	2,673	3,399	738	2,893	3,631	1,464	5,566	7,030	-7.6%
Nov-89	875	3,312	4,187	782	3,397	4,179	1,657	6,709	8,366	-5.7%
Dec-89	878	3,401	4,279	792	3,192	3,984	1,670	6,593	8,263	5.5%
Jan-90	540	2,333	2,873	593	2,454	3,047	1,133	4,787	5,920	2.8%
Feb-90	732	2,933	3,665	565	2,803	3,368	1,297	5,736	7,033	3.9%
Mar-90	820	3,837	4,657	735	3,263	3,998	1,555	7,100	8,655	5.2%
Apr-90	759	3,896	4,655	728	3,706	4,434	1,487	7,602	9,089	7.9%
May-90	721	3,824	4,545	690	3,879	4,569	1,411	7,703	9,114	9.0%
Jun-90	748	3,940	4,688	733	4,164	4,897	1,481	8,104	9,585	26.1%
FY 89/90 TOTAL	9,718	41,604	51,322	9,185	40,387	49,572	18,903	81,991	100,894	-0.3%

Includes only riders using the Santa Barbara-Los Angeles segment of Trains #774/783, which began service on June 26, 1988.

Figure 14. Monthly Ridership of San Diegan Extension to Santa Barbara

San Diegan Route Ridership By Station, 1989/90 Fiscal Year

Rank		Station	Average Daily Ridership	Notes
1	T	Los Angeles	2250.3	
2	T	San Diego	1970.7	
3	T	Oceanside	982.2	
4	T	San Juan Capistrano	880.8	
6	T	Del Mar	815.1	
7	T	Fullerton	797.2	
5	T	Santa Ana	794.6	
8	T	Anaheim	501.1	
9	A	Santa Barbara	122.4	
10	A	Oxnard	72.6	
12	A	Van Nuys	65.0	
13	T	San Clemente	47.0	
11	A	Glendale	40.7	
14	A	Chatsworth	37.7	
15	A	Simi Valley	32.6	
16	T	Irvine	13.3	Service initiated 6/1/90
17	B	Thousand Oaks	6.5	
18	B	Ventura	1.8	
19	T	Burbank Airport	0.8	Service initiated 6/1/90
20	B	Calexico	0.6	Service initiated 10/29/89
21	B	El Centro	0.4	Service initiated 10/29/89
22	B	El Cajon	0.2	Service initiated 10/29/89

T = Station served by train only (includes bus junction points)
A = Station served by both train service and bus connection
B = Station served only by bus connection

Figure 15. San Diegan Ridership by Station

SAN DIEGAN ROUTE
Annual Performance - State Fiscal Years

State Fiscal Year	Ridership Data: All Trains Riders	All Trains PM/TM (1)	403(b) Trains Riders	403(b) Trains PM/TM	Financial Data (For State-Supported 403(b) Trains/Buses Only): Revenue	Operating Expense	Operating Loss	Total State Cost (3)	Train Loss per PM (4)	Revenue/ Cost Ratio
1973-74	381,844	N/A								
1974-75	356,630	N/A								
1975-76	376,900	N/A								
1976-77*	607,976	146	101,572	N/A	$598,140	$1,662,714	$1,064,574	$548,534	N/A	36.0%
1977-78**	753,246	128	258,800	N/A	$1,446,036	$3,768,065	$2,322,029	$1,325,087	N/A	38.4%
1978-79	967,316	163	415,865	N/A	$2,203,403	$4,333,602	$2,130,199	$1,178,667	N/A	50.8%
1979-80	1,218,196	177	557,113	N/A	$3,341,561	$5,536,840	$2,195,279	$1,064,713	N/A	60.4%
1980-81***	1,238,135	152	555,418	N/A	$4,032,480	$6,572,539	$2,540,059	$1,233,490	N/A	61.4%
1981-82	1,167,718	144	533,093	152	$4,097,254	$6,607,395	$2,510,141	$1,217,418	6.3 ¢	62.0%
1982-83	1,131,146	138	488,606	124	$4,094,750	$6,928,334	$2,833,584	$1,374,097	8.3 ¢	59.1%
1983-84	1,221,256	143	524,857	131	$4,842,400	$6,337,083	$1,494,683	$1,452,450	4.1 ¢	76.4%
1984-85	1,240,003	152	568,902	144	$5,410,502	$6,411,308	$1,000,806	$1,212,261	2.5 ¢	84.4%
1985-86	1,394,320	167	597,025	151	$5,658,915	$6,424,634	$765,719	$1,097,966	1.8 ¢	88.1%
1986-87	1,461,003	173	624,618	155	$6,072,523	$6,510,113	$437,590	$955,509	1.0 ¢	93.3%
1987-88****	1,661,512	174	749,996	158	$8,223,462	$7,859,783	($363,679)	$1,145,330	(0.7¢)	104.6%
1988-89 (5)	1,717,539	164	865,003	161	$11,458,084	$10,563,459	($894,625)	$794,159	(1.2¢)	108.5%
1989-90 (6)	1,746,673	174	882,167	156	$12,189,942	$11,808,251	($381,691)	$988,847	(1.4¢)	103.2%

* Fourth round trip (first State-supported train) inaugurated 9/1/76; fifth round trip (second State-supported train) inaugurated 4/24/77.
** Sixth round trip (third State-supported train) inaugurated 2/14/78.
*** Seventh round trip (not State-supported) inaugurated 10/26/80.
**** Eighth round trip (fourth State-supported train) inaugurated 10/25/87; one round trip extended to Santa Barbara 6/26/88 (State-supported north of Los Angeles only)

(1) Passenger-miles per train-mile, a measure of the average load on a train over its entire route. Actual passenger-mile data was not provided by Amtrak prior to August 1981. PM/TM figures shown for all trains are calculated by Amtrak and cover the Amtrak Fiscal Year (October through September).
(2) Short-term avoidable cost basis since October 1983, solely-related cost prior to then. Equipment capital costs (depreciation and interest) included in operating cost under solely-related basis but excluded and charged separately under short-term avoidable basis.
(3) Effective October 1983, State cost is 65 percent of operating loss plus 50 percent of equipment capital cost; from October 1976 through September 1983, State cost was 50 percent of operating loss (including equipment costs), less 1.5 percent credit for staff services starting October 1978. State pays entire net cost of connecting buses.
(4) Loss (deficit) per passenger-mile; the Congressional Standard for short-haul trains (under 600 miles) was originally 9.0 cents, but has inflated to 16.9 cents in FY 1990. Separate passenger-mile data for State-supported trains was not provided by Amtrak prior to August 1981. Connecting buses not included in loss per passenger-mile data.
(5) For FY 1988-89, State operations (administration) cost for the San Diegan route was $0.17 million and marketing expenditures were $1.25 million; plus $0.10 million for non-route specific administration and planning.

Figure 16. San Diegan Annual Performance

PROPOSED TRAIN SERVICE IMPROVEMENTS

In response to public input and operational evaluations, Caltrans has identified two improvements which will substantially upgrade the level of train service available to *San Diegan* passengers. The train service improvements proposed by Caltrans for implementation within the five-year period of this *Plan* are as follows:

1. Add the ninth and tenth daily round-trips between Los Angeles and San Diego.
2. Extend the third and fourth *San Diegan* daily round-trips to Santa Barbara.

Caltrans believes that the first of the above improvements can be implemented without the need for additional State funds to cover operating costs. Amtrak states that additional equipment will be required to operate these additional frequencies (except for the ninth round-trip between Los Angeles and San Diego). Also, other capital improvements may be needed for these new services. These improvements are, therefore, subject to the availability of sufficient capital and operating funds. Both service improvements are subject to Amtrak's agreement to operate each service.

Each of these improvements is discussed in the following sections of this Chapter.

Ten Train Service Level (Los Angeles-San Diego)

The *San Diegan* route has experienced ridership and revenue growth that has consistently exceeded Amtrak system averages (see the "Performance" section earlier in this Chapter). These results point to the need for a ten train schedule to be introduced between Los Angeles and San Diego. A ten train schedule will substantially improve service on the route and increase ridership. Ten trains will also allow the *San Diegans* to move toward a "memory schedule" (allowing more trains to depart at the same number of minutes after the hour) and will reduce the time between trains allowing additional choices for the intercity traveler. The LOSSAN I Study estimated that a ten train service would allow annual ridership to increase by up to 750,000 passengers, an increase of 43 percent over the current ridership level.

One additional set of equipment (one locomotive, five 84-seat coaches, one 60-seat custom class coach and one Amcafe car) was added to the *San Diegan* route equipment fleet to permit operation of the second Santa Barbara extension which began on October 28, 1990. In order to progress quickly towards achievement of the ten train service level, in late 1990, Caltrans and Amtrak agreed to use this additional set of equipment to run a ninth *San Diegan* round-trip between Los Angeles and San Diego. In late 1990 Amtrak formally requested the Santa Fe Railway to run the ninth round-trip beginning in April 1991. Santa Fe replied that they would not add the train on the basis that an increase in Amtrak service without corresponding increases in "plant capacity" would result in unreasonable interference with the railroad's other operations. Caltrans and Amtrak will

continue to work with Santa Fe for implementation of the ninth *San Diegan* as an important step towards achievement of the ten train service level.

Extend Third and Fourth Trains to Santa Barbara

As noted earlier in the "Performance" section of this Chapter, the performance of the Santa Barbara extension of the *San Diegan* route has been excellent. These favorable results demonstrate a clear public demand for additional intercity rail service between Santa Barbara, Los Angeles and San Diego. Accordingly, Caltrans believes the third and fourth *San Diegan* route trains should be extended to Santa Barbara.

The LOSSAN II study estimated that a four train service level to Santa Barbara would produce a 1995 annual ridership level of up to 518,000, an increase of over 500 percent above the annual ridership generated by the first *San Diegan* extension.

Extend Train Service to San Luis Obispo

The favorable results of the new Santa Barbara-San Luis Obispo bus route (see the *San Diegan* Route section in Chapter V) demonstrate a substantial market for intercity service in this corridor. Consequently, Caltrans will examine the feasibility of extending direct *San Diegan* rail service from Santa Barbara to San Luis Obispo. This study will look at potential ridership, possible schedules, operating revenues, costs, subsidy requirements, capital needs (equipment, track upgrading and station facilities) and coordination with existing and proposed services along the route. If the results of the study demonstrate that the extension will be cost-effective, Caltrans will work towards implementing the extension of a *San Diegan* train to San Luis Obispo. The study will also evaluate provision of service to points now served by the existing feeder bus service between Santa Barbara and San Luis Obispo.

In April 1991 Caltrans awarded a $27,000 planning grant (to be supplemented with additional local funding) to the San Luis Obispo Area Coordinating Council (SLOACC) to study rail passenger service improvements in San Luis Obispo County. Caltrans will coordinate its study of a *San Diegan* extension to San Luis Obispo with SLOACC's own study.

RECOMMENDATIONS

Following is a summary of the *San Diegan* route train service improvement recommendations made in this Chapter for implementation over the five-year period of this *Plan*. Institutional barriers, availability of funding, or technical problems outside the control of Caltrans will affect when each of the improvements can be implemented.

- The State should continue to provide funding (for the period of this plan) for the operation of four *San Diegan* round trips between Los Angeles and San Diego and two round trips between Los Angeles and Santa Barbara, plus dedicated feeder bus connections. An appropriation of $1.516 million for operations will be required in the 1991/92 fiscal year.
- The ninth and tenth *San Diegan* route round-trips will be added between Los Angeles and San Diego.
- The third and fourth *San Diegan* route trains will be extended to Santa Barbara.
- *San Diegan* train service will be extended to San Luis Obispo (assuming favorable results from route study).

A San Joaquin train traversing the Delta between Stockton and Antioch.

Chapter IV - The San Joaquins (Bay Area/Sacramento-Fresno-Los Angeles)

OBJECTIVES

The State's objectives on this route are to:

- Increase ridership and revenue/cost (farebox) ratio
- Increase frequency of service
- Reduce train running times
- Improve the reliability (on-time performance) of trains
- Extend train service to Sacramento and Los Angeles

BACKGROUND

Rail passenger service in the San Joaquin Valley immediately prior to Amtrak consisted of two daily trains: Southern Pacific's combined *San Joaquin* and *Sacramento Daylights*, which operated between Los Angeles and the Bay Area and Sacramento, respectively, and Santa Fe's *San Francisco Chief*, which ran between the Bay Area and Chicago. Amtrak's initial route structure in May 1971 utilized only Southern Pacific's Coast Line for service between Northern and Southern California, leaving the San Joaquin Valley completely without rail passenger service. Public pressure for the restoration of the rail service began almost immediately.

Specific funding for San Joaquin Valley service was included in Amtrak's 1973/74 appropriation. Amtrak selected a joint Southern Pacific-Santa Fe route. A connection between the two railroads was constructed at Port Chicago (near Pittsburg). On March 6, 1974, the new train, named the *San Joaquin*, entered service between Oakland and Bakersfield. New Amfleet equipment was introduced in 1976.

In 1979 a 43 percent reduction in Amtrak's nationwide route structure was proposed. Even though public and Congressional pressure saved all but five basic-system routes, the *San Joaquin* was one of those routes which was scheduled to be eliminated on October 1, 1979. The State of California, however, reached an agreement with Amtrak to continue the train with State support under the provisions of Section 403(b) of the Amtrak Act. State support was conditioned on certain service improvements and efficiency measures to which Amtrak agreed.

An important improvement was the addition of a second round trip on the route, which was inaugurated on February 3, 1980. This second train transformed the route by providing, for the first time, morning and evening trains in both directions. Ridership increased significantly as the Valley corridor enjoyed

renewed popularity. Since the start-up of the third *San Joaquin* train on December 17, 1989 (see Operational and Train Service Improvements below), San Joaquin ridership has increased 32 percent for 1990.

The performance of the *San Joaquins* has improved dramatically since the State began supporting the route in October 1979. With continuation of the State's marketing efforts and the program of improvements discussed later in this Chapter, ridership and revenues should continue to increase. After adding the third train, the revenue/cost ratio dropped from 86.9 percent in Fiscal Year 1988-89 to 77.5 percent in Fiscal Year 1989-90. This reduction in the ratio resulted from the initial start-up costs of the third *San Joaquin* (such as labor, fuel, car maintenance) which were incurred upon commencement of service. However, the ratio should remain well above the 55 percent requirement in the future as the third-train continues to attract new riders, thereby generating increased revenues.

Figure 4 in the Key Maps section illustrates the route, including connecting buses which are described in Chapter V.

OPERATIONAL AND TRAIN SERVICE IMPROVEMENTS

Third Train

Caltrans and Amtrak began operation of the third *San Joaquin* train (Numbers 703 and 704) on December 17, 1989. The third round-trip leaves Oakland southbound at 11:45 a.m., and Bakersfield northbound at 11:25 a.m., providing mid-day service to the Valley and offering connections with the *Southwest Chief* at Pasadena. Also, the existing morning northbound and evening southbound trains were rescheduled to provide a 55 minute earlier arrival at and later departure from the Bay Area and Sacramento, allowing passengers almost two hours more per day for one day trips to these destinations.

Increased Train Speeds

At the insistence of the State, Amtrak and the Santa Fe reached an agreement in 1981 to increase maximum train speed from 70 to 79 miles per hour through the Valley. This resulted in a cut of 35 minutes from the schedule and reduced the Oakland-Bakersfield running time to exactly six hours. Between Stockton and Bakersfield, the average speed of the trains is now 55 miles per hour, including stops.

Additional Stops

Stops added to the *San Joaquin* route are discussed below.

Allensworth: A station platform at Colonel Allensworth State Historic Park is proposed to be built, using funding provided exclusively by the California Department of Parks and Recreation. The station would be used for special events at the Park and for for pre-arranged group stops only. The Park is located

15 miles south of Corcoran adjacent to Santa Fe Railway tracks used by the *San Joaquin.*

Antioch: Instituted on October 28, 1984, this stop serves over 100,000 persons who live within ten miles of the Antioch station. The station is linked with the Concord BART station by a BART feeder bus route and now averages approximately 27 passengers per day.

Berkeley: The Berkeley stop was inaugurated on January 22, 1986. It is adjacent to the former Southern Pacific station at the foot of University Avenue. Although Richmond with its BART interface is the most convenient location in the Bay Area for public transit users, the Berkeley stop, located just off Interstate 80, is the most convenient location in the Bay Area for automobile access. Berkeley is also the home of a major campus of the University of California. Ridership at Berkeley is averaging about 17 passengers per day.

Corcoran: A station stop at Corcoran was opened on July 29, 1989. Although less than 20 miles from the Hanford station, Corcoran is not currently served by any other public or commercial intercity transportation. A major new State prison has been constructed at Corcoran and its completion has resulted in a much greater demand for public transportation. Ridership at Corcoran is averaging about 15 passengers per day.

Turlock (Denair Station): This stop, located on the outskirts of Turlock at Denair, was added on September 12, 1987. The City of Turlock provides an on call shuttle service that serves downtown Turlock and the California State University at Stanislaus. Ridership is currently averaging about 22 passengers per day.

Fares

In September 1983 a "seven dollar return fare" was introduced on the *San Joaquins,* permitting round trip travel for only seven dollars more than the one way fare (except during holiday periods and on Fridays, Saturdays and Sundays during the summer). Since it encourages longer trips, this special fare has greatly increased revenue and improved the farebox ratio by dramatically increasing both the number of passengers and the average fare.

In September 1985 the seven dollar return fare was extended to include points along the *San Diegan* route. The one-way fare represents the combination of the two separate fares on the two routes, but the single seven dollar return fare applies to the entire return trip.

In October 1990 a one-day round-trip excursion fare program was also begun connecting points on the *San Joaquin.* This new fare offers a round trip for only one dollar more than the one-way fare if all travel is made on the same day. The intent of the program is to encourage discretionary trips to tourist attractions, such as Marine World/Africa USA and Sacramento.

Effective April 1, 1991, Amtrak instituted a new policy providing half-fare travel to children 2 through 15 years of age. This fare change will make rail service more competitive with the automobile for family travel.

MARKETING AND PUBLIC RELATIONS

The purpose of the Fiscal Year 1990/91 *San Joaquin* rail marketing program is to continue to remind our traveling audience that the State-supported rail service is a viable transportation alternative to driving. This ongoing effort has been a major factor in the increases in ridership and revenue since the State has been involved with the San Joaquins.

The 1990/91 *San Joaquin* marketing program's major focus is on newspapers, supported by a mix of spot TV and outdoor billboards. As in the past, Caltrans primary marketing focus is on increasing public awareness of cities served by the trains and the feeder buses, fares, comfort, speed, safety and dependability. Specific promotions also focus on the third *San Joaquin* train, new feeder bus service extensions and the special $1.00 return on a same day roundtrip fare. Caltrans current marketing consultant is MacDaniels, Henry & Sproul of San Francisco.

The 90/91 planned media expenditures for the San Joaquin are:

Newspaper	$310,000
Television	276,000
Outdoor Billboards	98,400
Total	$684,400

Caltrans also supports Amtrak service in California by publication of a full-color "California Amtrak Timetable" which is distributed at Amtrak stations, travel agencies and travel literature racks. The newsletter "Making Tracks" is also published quarterly for distribution at all stations and at promotional events.

Additional television advertising for State-supported trains is provided by Amtrak in major California markets including the Bay Area, Los Angeles and Sacramento.

FOOD AND BEVERAGE SERVICE

Assembly Bill 3736 (Chapter 1490 of the Statutes of 1990) provides that:

> *The department shall investigate steps that may need to be taken to restore quality dining car service, offering full, hot meals, substantially similar to the service offered on this route prior to the removal of high-level cars in December 1989.*

Caltrans requested Amtrak indicate the feasibility and cost of providing full dining car service on the *San Joaquin* trains. Amtrak replied that six new Viewliner diners (including protection cars) would need to be acquired to provide full dining service on the three present *San Joaquin* round-trips at a capital cost of $15 million. To provide such service only on Trains 708 and 709, two cars

would be needed, costing $5 million. (Amtrak states that most Heritage diners released from Eastern trains as a result of Superliner conversions will be retired or stored due to their age and condition, and their use is not recommended.) Increased operating costs (less increased revenues) of full dining service on the *San Joaquins* would be about $0.9 million for all trains, and $0.2 million for only Trains 708 and 709.

While the capital costs of providing full dining service are prohibitive, Caltrans and Amtrak are working together to improve the variety and attractiveness of food service aboard the *San Joaquins* using the existing Horizon food service cars. Caltrans has proposed that Amtrak inaugurate a new food service menu on the *San Joaquin* trains. The proposed lunch and dinner menu would include hot and cold entrees, and feature fresh salads, fried chicken, sliced beef in gravy and deli-style sandwich choices. Each meal would be accompanied by appropriate side dishes, and the price of each complete entree would be less than $7.00.

THE STEERING COMMITTEE OF CALTRANS RAIL TASK FORCE

In 1987, members of the Caltrans San Joaquin Task Force formed a committee to take a more active role in developing suggestions for improving the *San Joaquins.* Known as "The Steering Committee of Caltrans Rail Task Force", it is composed of representatives from each of the counties served by the trains, and interested counties served by the connecting bus network. Member counties are: Alameda, Contra Costa, Fresno, Kern, Kings, Los Angeles, Madera, Merced, Sacramento, San Joaquin, Stanislaus and Tulare. Santa Clara County, Caltrans, Amtrak and the California Public Utilities Commission have non-voting members on the Committee. The Southern California Association of Governments and the Metropolitan Transportation Commission have been invited to join the Steering Committee. A staff member from the Caltrans Division of Rail is the project manager and liaison with the Committee.

The Committee is involved in a wide variety of issues relating to the *San Joaquins,* and has identified the following priorities for improving the service:

1. Establishing direct rail service to Sacramento.
2. Extending rail service from Bakersfield to Los Angeles.
3. Rerouting the trains over the Southern Pacific line between Stockton and Fresno.
4. Rerouting the trains over the Union Pacific line through Altamont Pass between the San Joaquin Valley and Oakland.

The formation of the Committee and the active role that it has taken demonstrates the strong local support that exists for the *San Joaquin* service. At the Committee's request, several counties served by the route have passed resolutions urging the Governor, the Legislature and the California Transportation Commission to develop and enact the necessary legislation to implement the priorities of the Committee. Support from the Committee played an important

role in securing enactment of AB 971, which developed a capital needs study for the route. Members of the Committee then participated actively in the work of the AB 971 study.

PERFORMANCE

The performance of the *San Joaquins* has improved significantly since the State became involved in the operation of the route in 1979. During this time, ridership has more than tripled, reaching a total of 418,768 in the 1989/90 fiscal year. Revenue has increased more than eight-fold since 1979/80, and the revenue-cost ratio has improved from 29.5 percent in 1979/80 to 77.5 percent for Fiscal Year 1989/90. The total operating loss (in current as well as constant dollars) actually has declined in every year but one since 1981.

Figure 17 lists actual monthly ridership figures for the Fiscal Years 1983/84 through 1989/90, as well as the percent change from one year to the next. Figure 18 lists *San Joaquin* ridership by station, including connecting bus stops, for the 1989/90 fiscal year. Figure 19 is a table showing annual ridership since the service began and annual financial data since the start of State support. Figure 5 in the Key Maps and Ridership Graphs section is a graphical illustration of actual and average monthly ridership since the service began.

It is expected that ridership will continue to increase in the future, with the rate of increase remaining at about five to seven percent per year (exclusive of ridership generated by additional trips). Projected funding levels for the next five years are shown in Table II in Chapter XI of this report. They include projections for a fourth *San Joaquin* round-trip and direct Sacramento and Los Angeles train service on the *San Joaquin* route. The projections reflect the cost increase that resulted from an agreement between Amtrak and Santa Fe which provides for an "incentive clause" under which Santa Fe receives additional payments from Amtrak for maintaining a specified level of on-time performance. (Santa Fe is one of the few railroads that previously did not have such an agreement with Amtrak.)

SAN JOAQUIN MONTHLY RIDERSHIP

Month	FY 83/84 Route Riders	FY 84/85 Route Riders	Percent Change	FY 85/86 Route Riders	Percent Change	FY 86/87 Route Riders	Percent Change	FY 87/88 Route Riders	Percent Change	FY 88/89 Route Riders	Percent Change	FY 89/90 Route Riders	Percent Change
July	21,877	24,612	11.1%	28,191	14.5%	28,394	0.7%	33,616	18.4%	35,451	5.5%	32,670	-7.8%
August	22,473	24,779	9.3%	31,144	25.7%	31,729	1.9%	35,560	12.1%	38,881	9.3%	34,425	-11.5%
September	14,635	17,137	14.6%	18,884	10.2%	19,695	4.3%	21,839	10.9%	24,405	11.7%	24,171	-1.0%
October	16,199	18,386	11.9%	19,190	4.4%	21,249	10.7%	23,645	11.3%	26,434	11.8%	24,405	-7.7%
November	23,217	21,832	-6.3%	22,318	2.2%	23,004	3.1%	27,438	19.3%	29,785	8.6%	27,837	-6.5%
December	22,686	23,699	4.3%	26,986	13.9%	24,262	-10.1%	26,186	7.9%	28,523	8.9%	31,039 *	8.8%
January	14,671	18,652	21.3%	19,709	5.7%	18,774	-4.7%	22,228	18.4%	24,919	12.1%	28,157	13.0%
Febuary	15,586	16,076	3.0%	13,941	-13.3%	18,135	30.1%	22,044	21.6%	22,993	4.3%	27,396	19.1%
March	18,117	20,739	12.6%	25,852	24.7%	22,206	-14.1%	29,036	30.8%	33,603	15.7%	46,099	37.2%
April	25,765	25,455	-1.2%	22,645	-11.0%	29,820	31.7%	29,921	0.3%	34,435	15.1%	50,457	46.5%
May	26,520	30,972	14.4%	23,691	-23.5%	35,615	50.3%	34,716	-2.5%	37,613	8.3%	47,816	27.1%
June	26,529	27,498	3.5%	28,247	2.7%	31,785	12.5%	34,344	8.1%	33,148	-3.5%	44,296	33.6%
Fiscal Year Total	248,275	269,837	8.0%	280,798	4.1%	304,668	8.5%	340,573	11.8%	370,190	8.7%	418,768	13.1%
Monthly Average	20,690	22,486	8.0%	23,400	4.1%	25,389	8.5%	28,381	11.8%	30,849	8.7%	34,897	13.1%

* Third round trip added 12/17/89

Figure 17. San Joaquin Monthly Ridership

San Joaquin Route Ridership By Station, 1989/90 Fiscal Year

Rank		Station	Average Daily Ridership	Notes
1	T	Fresno	353.7	**T = Station served by train only (includes bus junction points)**
2	B	Los Angeles	218.6	**A = Station served by both train service and bus connection**
3	T	Bakersfield	188.7	**B = Station served only by bus connection**
4	T	Martinez	176.7	
5	T	Hanford	169.1	
6	B	San Francisco	137.3	Transbay Terminal and 4th & Townsend
7	T	Stockton	131.9	
8	T	Merced	129.2	
9	B	Sacramento	115.9	
10	T	Riverbank	91.3	
11	T	Oakland	74.0	
12	T	Richmond	40.0	
13	T	Antioch-Pittsburg	27.5	
14	B	San Jose	27.1	
15	T	Wasco	23.6	
16	T	Turlock-Denair	22.2	
17	B	Pasadena	18.8	Connections with trains 703/704/708/709 only
18	T	Madera	18.3	
19	B	San Bernardino	18.0	Connections with trains 703/704/708/709 only
20	T	Berkeley	16.5	
21	B	Davis	15.6	
22	T	Corcoran	14.7	Service initiated 7/29/89
23	B	Visalia	14.7	
24	B	Santa Rosa	13.9	
25	B	Pomona	13.5	Connections with trains 703/704/708/709 only
26	B	Glendale	12.5	
27	B	Van Nuys	12.4	Flyway Terminal and Panorama City
28	B	Long Beach	12.0	
29	B	San Diego	10.6	Connections with trains 710 & 711 only
31	B	Vallejo/Marine World	10.4	Consolidated into one stop 9/18/89
30	B	Oxnard	10.2	
32	B	Riverside	8.8	Connections with trains 703/704/708/709 only
33	B	Santa Barbara	7.9	
34	B	Chico	6.5	
35	B	Napa	5.9	
36	B	Redding	5.8	Service initiated 12/17/89 - Connects with trains 703 and 704 only
37	B	Santa Ana	4.6	Connections with trains 710 & 711 only
38	B	Barstow	4.6	Connections with trains 708 & 709 only
39	B	Torrance	4.3	Connections with trains 703/704/708/709 only
40	B	Santa Clarita/Saugus	4.0	
41	B	Mojave	3.8	Connections with trains 703/704/708/709 only
42	B	Palm Springs	3.4	Service initiated 10/29/89 - Connections with trains 708 and 709 only
43	B	Oceanside	3.1	Connections with trains 710 & 711 only
44	B	Marysville	2.6	
45	B	Petaluma	2.5	
46	B	Rohnert Park	2.2	
47	B	Ventura	2.2	
48	B	Livermore	2.1	
49	B	Porterville	2.0	Connections with trains 708 & 709 only
50	B	Santa Monica	1.9	Connections with trains 703/704/708/709 only
51	B	Simi Valley	1.6	Service dropped 4/1/90 - Connections with trains 703/704/708/709 only
52	B	Oroville	1.6	
53	B	Woodland	1.4	
54	B	West Los Angeles	1.3	Connections with trains 703/704/708/709 only
55	B	Burbank Airport	1.2	Service initiated 10/29/89 - Connections with trains 703/704/708/709 only
56	B	Chatsworth	1.1	Service dropped 4/1/90 - Connections with trains 703/704/708/709 only
57	B	Thousand Oaks	0.8	Service dropped 4/1/90 - Connections with trains 703/704/708/709 only
58	B	El Monte	0.8	Service initiated 4/1/90 - Connections with trains 703/704/708/709 only
59	B	Indio	0.8	Service initiated 10/29/89 - Connections with trains 708 and 709 only
60	B	Hollywood	0.6	
61	B	Yosemite Nat'l Park	0.4	Service initiated 4/1/90 - Connections with trains 703/708/709 only
62	B	Lancaster	0.3	Service initiated 4/1/90 - Connections with trains 703/704/708/709 only
63	B	Palmdale	0.3	Service initiated 4/1/90 - Connections with trains 703/704/708/709 only
64	B	Palm Desert	0.2	Service initiated 10/29/89 - Connections with trains 708 and 709 only

* Includes only ridership on the Yosemite-Fresno Amtrak feeder bus link; riders on the Yosemite-Merced bus link operated by Yosemite Gray Lines are interline passengers and included in ridership at Merced.

Figure 18. San Joaquin Ridership by Station

SAN JOAQUIN ROUTE
Annual Performance - State Fiscal Years

State Fiscal Year	Ridership Data (All Trains)		Financial Data (All Services for which Data is shown below are State-Supported 403(b) Trains/Buses)					
	Riders	PM/TM (1)	Revenue	Operating Expense (2)	Operating Loss	Total State Cost (3)	Train Loss per PM (4)	Revenue/ Cost Ratio
1973-74*	38,770	83.6						
1974-75	66,990	44.2						
1975-76	66,530	43.8						
1976-77	87,642	56.0						
1977-78	80,611	52.7						
1978-79	87,645	60.2						
1979-80**	123,275	63.6	$1,174,065	$3,975,185	$2,801,120	$518,206	18.4¢	29.5%
1980-81	159,498	55.3	$2,224,137	$6,940,934	$4,716,797	$1,360,391	18.4¢	32.0%
1981-82	189,479	65.3	$3,115,710	$7,774,029	$4,658,319	$2,228,585	14.0¢	40.1%
1982-83	186,121	62.9	$3,342,137	$7,991,697	$4,649,560	$2,490,275	14.6¢	41.8%
1983-84	248,275	85.3	$4,730,431	$8,094,789	$3,364,358	$2,518,066	7.3¢	58.4%
1984-85	269,837	94.6	$5,210,951	$8,641,293	$3,430,342	$2,802,955	7.7¢	60.3%
1985-86	280,798	101.1	$5,425,329	$8,610,554	$3,185,225	$2,658,895	6.8¢	63.0%
1986-87	304,668	106.1	$6,084,677	$9,179,133	$3,094,456	$2,929,148	5.1¢	66.3%
1987-88	340,573	121.1	$7,457,686	$9,633,659	$2,175,973	$2,605,572	2.2¢	77.4%
(5) 1988-89	370,190	133.7	$9,527,268	$10,968,216	$1,440,948	$1,887,450	1.3¢	86.9%
(6) 1989-90***	418,768	116.9	$11,845,743	$15,286,520	$3,440,777	$3,544,332	3.2¢	77.5%

* Service started 3/6/74; figures are for four months only.

** State support started 10/1/79; figures are for nine months, during which time ridership totalled 93,206. Second round trip added 2/3/80.

*** Third round trip added 12/17/89.

(1) Passenger-miles per train mile, a measure of the average load on a train over its entire route.

(2) Short-term avoidable cost basis since October 1983, solely-related cost prior to then; includes cost of connecting buses. Equipment capital costs (depreciation and interest) included in operating cost under solely-related basis but excluded and charged separately under short-term avoidable basis.

(3) Effective October 1983, State cost is 65 percent of operating loss plus 50 percent of equipment capital cost; from October 1979 through September 1983, State cost increased in stages from 18.5 to 48.5 percent of operating loss (including equipment costs). State pays entire net cost of all connecting bus routes.

(4) Loss (deficit) per passenger-mile; the Congressional Standard for short-haul trains (under 600 miles) was originally 9.0 cents, but has inflated to 16.9 cents in FY 1990. Connecting buses not included in loss per passenger mile data.

(5) For FY 1988-89, State operations (administration) cost for the San Joaquin route was $0.17 million and marketing expenditures were $1.25 million; plus $0.10 million for non-route specific administration and planning.

(6) For FY 1989/90, State operations (administration) cost for the San Joaquin route was $0.28 million and marketing expenditures were $0.83 million; plus $0.10 million for non-route specific administration and planning.

Figure 19. San Joaquin Annual Performance

PROPOSED TRAIN SERVICE IMPROVEMENTS

In response to public input and operational evaluations, Caltrans has identified six improvements which will allow the *San Joaquins* to capture new markets not currently served. Also, improvements such as custom class and checked baggage service will significantly upgrade the level of train service available to *San Joaquin* passengers. The train service improvements proposed by Caltrans for implementation over the five-year period of this Plan are as follows:

1. Extend train service directly to Sacramento.
2. Add a fourth daily *San Joaquin* train
3. Reroute *San Joaquin* service onto the Southern Pacific line between Stockton and Fresno.
4. Extend service to Los Angeles
5. Provide checked baggage service
6. Provide custom class service

All of the above improvements are subject to the availability of sufficient operating funds (and capital funds, where needed), as well as Amtrak's agreement to operate each service and to provide its usual financial contribution to operations.

Each of these improvements is discussed in the following sections of this Chapter.

Sacramento Service/Fourth Train

The Los Angeles-Fresno-Bay Area/Sacramento High-Speed Rail Corridor Study, mandated by AB 971 and discussed in Chapter VIII, has identified the capital improvements (including equipment needs) necessary to extend direct *San Joaquin* train service to Sacramento. The study has also estimated the costs for such an extension.

In June 1990, the Los Angeles-Fresno-Bay Area/Sacramento High-Speed Rail Corridor Study Group (AB971) recommended direct *San Joaquin* rail service be extended to Sacramento as a near term incremental improvement. The Study Group stated that Sacramento service should be accomplished by splitting/combining Bay Area and Sacramento sections at Stockton. The consultant, Parsons Brinkerhoff Quade and Douglas Inc., estimated that extension of four round-trips would generate 110,000 passengers a year, revenues of $2.60 million and costs of $1.87 million (the estimated farebox ratio exceeds 100 percent).

With the strong ridership and financial performance of the route, Caltrans is also pursuing the addition of a fourth *San Joaquin* round-trip. This additional trip will provide improved service frequency to handle the major ridership increases expected on the route. Caltrans estimates the fourth train and appropriate bus connections will generate an estimated annual ridership of 100,000 and projected revenues of about $3,000,000 per year.

In order to quickly provide additional service in Northern California, Caltrans and Amtrak developed an interim proposal to provide increased rail passenger service in Northern California on the *San Joaquin* and Sacramento-Bay Area corridors. This concept will be implemented only if assurance is received of obtaining the additional equipment needed to operate the following higher level of service in these corridors by April 1992:

Four round-trips per day on the *San Joaquin* route including a minimum of

- Three through direct rail services to Sacramento, and
- Three through direct rail services to Oakland (via Antioch)

To provide the needed equipment, Caltrans asked Amtrak to identify equipment which may be leased for a three to five year period pending acquisition of the fleet of "California Cars" to be funded by the bond measures approved in June 1990.

Implementation of this proposal also requires approval of the Santa Fe and Southern Pacific railroads as well as the appropriation of sufficient operating funds by the Legislature.

The interim proposal also uses the existing equipment fleet based in Oakland more intensively to operate the following services:

- Adds a fourth *San Joaquin* route round trip, providing through train service to Sacramento, with direct bus connections between the Bay Area and Stockton. Feeder buses connecting with this trip also provide a new earlier arrival at, and a later departure from, Los Angeles.
- Adds two through rail trips between Sacramento and San Joaquin Valley points (all present service is via feeder bus between Sacramento and Stockton).
- Adds a local round-trip between Sacramento and the Bay Area.

In late December 1990, the Santa Fe advised Amtrak and Caltrans that it would not consider operation of the fourth *San Joaquin* train provided by the interim proposal until the physical improvements previously agreed to by Caltrans to facilitate operation of the third *San Joaquin* have been completed. Also, the Santa Fe expressed concerns about the impact on freight operations because of switching Amtrak trains between the Southern Pacific and Santa Fe main lines at Stockton and the continued use of the present station location in conjunction with such switching.

Caltrans is working with Santa Fe (SF), Southern Pacific (SP) and Union Pacific (UP) on a project to construct a new track connection in the northeast quadrant of the junction between SF and SP at Stockton. This connection, which also requires major signalling changes, is proposed to receive rail bond funding. It will allow efficient implementation of the extension of *San Joaquin* service to Sacramento. Caltrans is also working with the Santa Fe, the City of Stockton and San Joaquin County to identify a new interim station site at Stockton that would be used in conjunction with the new track connection. (The existing Stockton station is located west of the site of the proposed project. The switching time needed for its continued use would negate the benefits of the new connection.)

Southern Pacific Reroute

Running the San Joaquins over the Southern Pacific (SP) route (instead of the Santa Fe (SF) line) between Stockton and Fresno would serve Modesto and Turlock directly. It would also provide improved station locations in Merced and Madera. Cities and counties along the route strongly support this change.

In order to accomplish the reroute, a new connection between the SF and the SP would be required in the south Fresno area--probably at Calwa adjacent to the Santa Fe freight yard. Also, it is likely that all or part of the SP line, as well as the connection between the two railroads at Stockton, would need to be upgraded in order to maintain the current six hour and ten minute schedule between Oakland and Bakersfield.

In its June 1990 report, the Los Angeles-Fresno-Bay Area/Sacramento High-Speed Rail Corridor Study Group (AB 971) supported the rerouting of the *San Joaquin* trains to the SP route between Fresno and Stockton on the basis that the northern three-county area would be better served. The Study Group stated that the project should be started as soon as equivalent travel times relative to the SF route can be accomplished. Intermodal projects are underway at the former SP stations at Madera, Merced and Modesto, which could be used by the *San Joaquins* if they are rerouted onto the SP. Also, in March 1991, the California Transportation Commission recommended TCI funding for right-of-way acquisition and an environmental assessment for an Amtrak Station on the SP route at Fresno, a preliminary engineering study for a switch and rail connection between SP and SF at Fresno/Calwa, and feasibility studies for stations at Turlock and Manteca.

With an estimated annual ridership increase of 20,860, the projected growth in revenue from the reroute would be about $400,000 per year. No significant incremental operating costs are expected as a result of the reroute; therefore, the reroute should result in increased revenues. Amtrak states that the limited increase in operating expenses is primarily due to higher incentive payments, incremental track maintenance and other train cost rates payable to SP. At current rates, the additional costs would be approximately $300,000 per annum for the six frequencies.

Caltrans is currently negotiating with Amtrak and SP concerning implementation of the SP reroute. These negotiations include running time, access and cost issues.

Extension To Los Angeles

The most frequently requested *San Joaquin* route service improvement is extension of the trains directly to Los Angeles. When the through rail trip was available between Bakersfield and Los Angeles on the pre-Amtrak *San Joaquin Daylight*, it took significantly longer than the alternative bus connection. However, history shows the great majority of train passengers preferred the through train ride. If such requests and ridership experience accurately reflect likely use of such an extension, it would be a key element in achieving the full ridership potential of the *San Joaquin* route.

The line between Bakersfield and Mojave is one of the busiest single track freight lines in the West, if not the entire country. It is SP's main line from the Pacific Northwest and Northern California to Southern California, and now handles most north-south traffic (supplemented by the Coast Line via San Luis Obispo). In addition, most SP freight traveling between the Mid-West or East Coast and California or Oregon also uses Tehachapi. Since the completion of the Colton-Palmdale cutoff in 1967, which bypasses Los Angeles congestion, SP has diverted most of its transcontinental freight traffic from the Donner Pass line (Sacramento-Ogden, Utah) to its main line through El Paso, Texas. The result has been a significant increase in SP freight traffic on the Tehachapi Pass line.

In addition, the SF has trackage rights on the Tehachapi Pass line between Kern Junction (Bakersfield) and Mojave. All SF freight traffic between the Mid-West and the San Joaquin Valley or Bay Area passes over Tehachapi. The result is an average of nearly fifty freight trains daily over the line. In November 1979, Amtrak ran a test train between Bakersfield and Los Angeles via Tehachapi and Soledad Canyon. The trip took five hours and 45 minutes. After the trip, Amtrak advised Caltrans that they believed freight interference and track maintenance caused delays that would make this route extremely unreliable, and chose not to pursue the matter.

In October 1988, the Denver and Rio Grande Western Railroad (D&RGW) purchased SP. The merged railroad has diverted at least two daily transcontinental freight trains from the Tehachapi line to its Donner Pass line via Sacramento and Ogden, Utah. In addition, four through freights (two each way) were rerouted from the San Joaquin Valley route to the Coast Route between the San Francisco Bay Area and Los Angeles.

In October 1990, SP and the Los Angeles County Transportation Commission (LACTC) entered into an agreement to sell to LACTC operating rights to 175 miles of line in Southern California. Included is a 40-foot wide segment of SP's right-of-way for 32 miles between Saugus and Los Angeles, along the Bakersfield-Los Angeles route. As part of this agreement, SP will leave a window open for passenger train operations for about five hours each morning and evening. This may facilitate the operation of *San Joaquin* service to and from downtown Los Angeles.

In June 1990, the Los Angeles-Fresno-Bay Area/Sacramento High-Speed Rail Corridor Study Group (AB971) recommended the extension of *San Joaquin* service to Los Angeles as a near term incremental improvement. The Study Group specifically recommended that an overnight schedule be implemented, such as an extension of Trains 710 and 711. That extension would provide a non-time-sensitive trip of about six hours between Bakersfield and Los Angeles, offering both coach and sleeper service. It would operate on a convenient overnight schedule allowing southbound Valley departures in the evening with arrivals in Los Angeles in the morning. The consultant to the Study Group projected the overnight service would carry 29,930 passengers a year producing revenues of $1.06 million, with operating costs of $1.82 million, for a farebox recovery ratio of 58 percent.

Checked Baggage Service

In July 1990, Caltrans again requested that Amtrak restore checked baggage service to the route to improve the overall level of service (thereby increasing ridership and providing additional revenue through Package Express service).

The request focused on the provision of checked baggage service initially on Trains 708 and 709, which carry many long distance passengers who transfer to and from the *Coast Starlight.* Only one baggage car would be required to serve both trains. Amtrak agreed to provide the baggage car and identified both capital and operational costs required for starting the service.

In October 1990, Caltrans applied for $315,000 in transit capital improvement funds to provide checked baggage service on the *San Joaquin* route. $249,000 of this amount would fund modifications at five stations to provide secure inside storage areas. Also, $66,000 would be used to purchase needed baggage tractors and wagons. In March 1991, the California Transportation Commission recommended that this project be funded. Checked baggage service will begin on the *San Joaquins* upon completion of the necessary station modifications.

Once baggage service begins on Trains 708 and 709, Caltrans will explore the extension of such service to all *San Joaquin* trains. Caltrans also intends to request that Amtrak offer through checked baggage service to staffed stations served by feeder buses connecting with the *San Joaquin* trains, such as to Los Angeles and Sacramento.

Custom Class Service

Caltrans has requested that Amtrak implement custom class service on all *San Joaquin* trains by converting five of the existing Horizon coach fleet to custom class cars. Custom class will offer *San Joaquin* passengers an upgrade in service by providing a reserved seat with complimentary beverages and newspapers for a nominal extra charge. This service has been well received on the *San Diegan* route and is especially designed to attract business travelers who appreciate a reserved seat and the added service features.

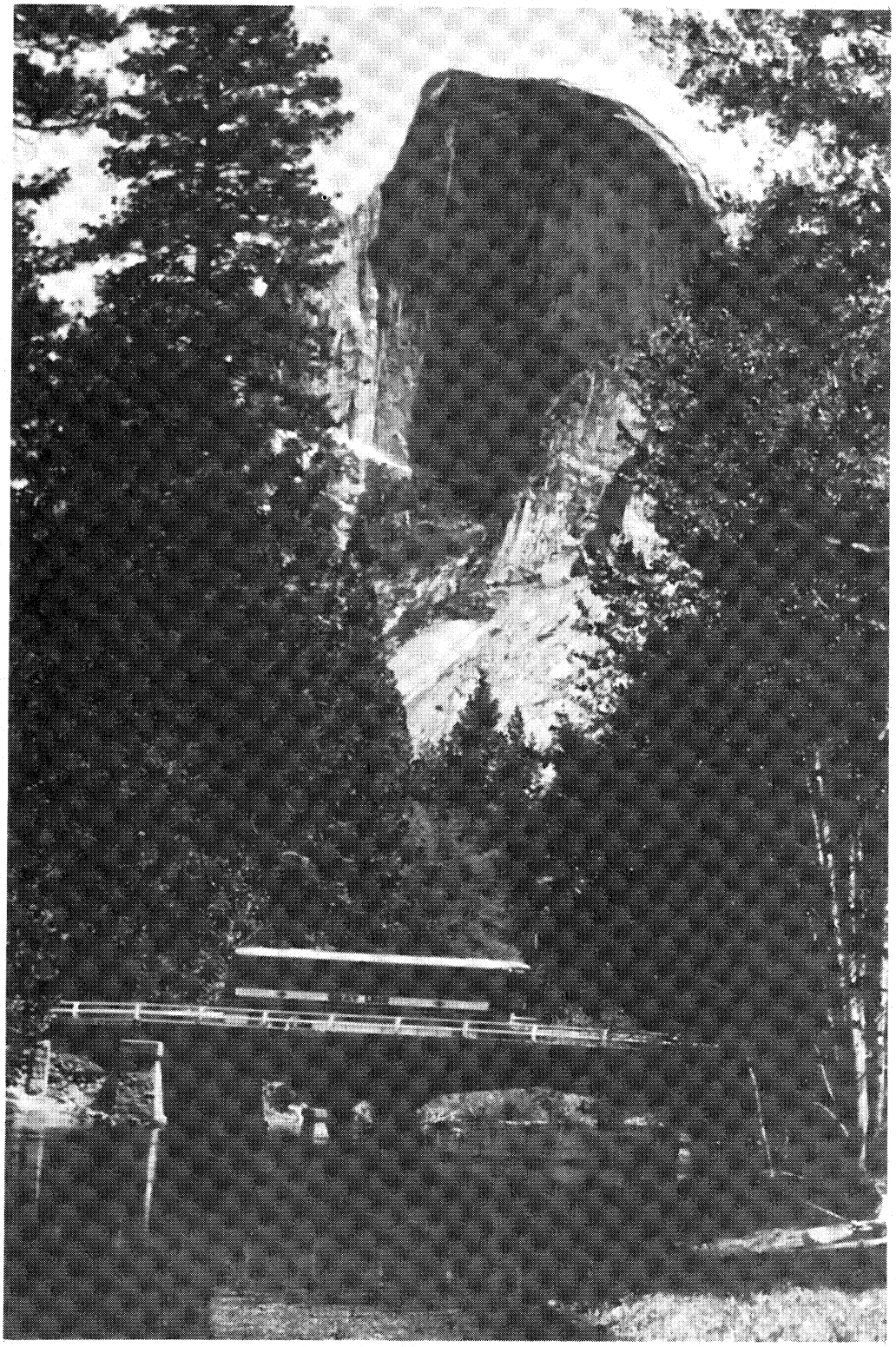
Caltrans will also explore the feasibility of providing special reserved connecting buses with upgraded seating for custom class passengers traveling on the feeder buses linking the trains with Los Angeles and Sacramento.

Additionally, Caltrans has requested Amtrak to arrange for telephone service on all *San Joaquin* food service cars making telephone service available to all passengers on the train.

RECOMMENDATIONS

Following is a summary of the *San Joaquin* route train service improvement recommendations made in this Chapter for implementation over the five-year period of this Plan. Institutional barriers, availability of funding, or technical problems outside the control of Caltrans will affect when each of these improvements can be implemented.

- The State should continue to provide funding (for the period of this Plan) for the operation of the three existing *San Joaquin* train round trips, including their connecting and feeder bus network. An appropriation of $6.391 million will be required for rail and bus operations in the 1991/92 fiscal year.
- Direct train service will be provided to Sacramento and a fourth train added as soon as possible. These actions are subject to identifying available equipment to run additional services on this route and securing railroad approval for the new services.
- The trains will be rerouted at a future date over the Southern Pacific line between Stockton and Fresno, when funding is made available to perform the necessary track and station work, if running time on the SP line is comparable to the present route.
- Direct *San Joaquin* train service will be provided to Southern California by extending Trains 710 and 711 overnight between Bakersfield and Los Angeles.
- Checked baggage will be provided once necessary station modifications are made and baggage handling equipment is provided.
- Custom class service will be provided upon completion of the conversion of five regular Horizon coaches to custom class cars.



Two connecting bus routes link Yosemite National Park with Amtrak's San Joaquin trains at Merced and Fresno.

Chapter V - Connecting Bus Services

GENERAL

Caltrans has instituted an extensive network of connecting bus links to increase the service area of the State supported train services. In some cases they restore service to markets that had been serviced prior to Amtrak's formation; in other cases, the buses tap entirely new markets. The bus routes also serve as a test of potential ridership for proposed rail services.

Caltrans contracts with Amtrak for the provision of these bus services and Amtrak then contracts with bus operators. This procedure is necessary for the bus routes to function as direct parts of the Amtrak system, with integrated fares, ticketing and inclusion in Amtrak's central information and reservation (CRO) system.

In most cases the bus service is provided only for Amtrak passengers who are making part of their trip on an Amtrak train. Contract bus operators for these dedicated bus routes are selected through competitive bidding. However, some routes, and portions of others, are operated by regular route intercity bus companies as part of their scheduled service. Where there is only one existing provider on such a route, contracts are negotiated with that operator. Where there is more than one existing service provider, competitive bids are solicited from each.

Unlike the trains, the operating costs of these buses are borne entirely by the State. It should be noted that a large part of the bus operating costs are offset by bus "revenues". A mileage/yield-based portion of the revenue from each through bus/rail ticket is allocated to the bus portion of the trip. This allocated revenue is then transferred to the cost of the bus, reducing the actual State expense. Revenue credits for some of the bus routes cover the entire cost of operation with any excess credits helping to offset the costs of other bus routes.

Caltrans is continually evaluating new Amtrak connecting and feeder bus routes and expansion of existing routes which will increase ridership and improve the financial performance of the service. Also, in places where ridership does not grow to levels adequate to achieve a cost-effective operation, bus service should be withdrawn, with cost savings redirected to more heavily used State-supported Amtrak services.

Caltrans wants to provide a wheelchair accessibility demonstration project for the Amtrak feeder bus network in California. To do so, Caltrans has requested that Amtrak solicit bids for provision of service with wheelchair accessible buses as an option to the feeder bus contracts which will be re-bid by Amtrak in Fall 1991.

SAN JOAQUIN ROUTE

A major improvement that has taken place since the State became directly involved with the *San Joaquins* has been the establishment of an extensive network of connecting buses which link to the trains. Figures 20, 21 and 22 depict the feeder buses operated to connect with *San Joaquin* route trains 703-704, 708-709 and 710-711 respectively. The bus feeders are primarily responsible for the dramatic increase in *San Joaquin* ridership and revenues which began in Fiscal Year 1981 and continues today. Without the feeder bus services, the *San Joaquins* would not have met the 55 percent revenue-cost ratio requirement for continued State support. Approximately 54 percent of all *San Joaquin* riders use one or more of the feeder buses for a portion of their trip. Figure 6 in the Key Maps and Ridership Graphs section shows how ridership is distributed between the train and the various connecting bus routes.

Ridership analysis shows that bus feeder riders make longer than average trips and therefore produce higher revenues per trip. For Fiscal Year 1990, it is estimated that approximately 66 percent of the *San Joaquin* system revenues, $7.8 million, would have been lost if the feeder buses were not operated.

Stockton-Sacramento-Redding

The Sacramento Valley feeder bus route connects with the *San Joaquin* trains at Stockton. From Stockton, the buses serve Sacramento, Davis and Woodland for all three round trips. The buses which connect with Trains 703, 704, 710 and 711 also serve Marysville, Oroville and Chico. The connections for Trains 703 and 704 also serve Redding and as of October 28, 1990, Red Bluff. On October 28, 1990, a second bus was added between Sacramento and Stockton for Trains No. 708, 709, 710 and 711 on a daily basis to meet passenger demand. This bus also serves Roseville.

In addition to providing a connection between Sacramento Valley points and the San Joaquin Valley at Stockton, this bus route also makes reverse connections at Stockton, providing a link between the Sacramento Valley and the San Francisco Bay Area. For Trains 708, 709, 710 and 711, this connection is provided without operating additional bus trips, since Trains 708 and 711 meet just east of the Stockton depot, as do Trains 710 and 709. As a result, each bus connects with trains operating in both directions. To provide a similar connection for Trains 703 and 704, an additional Stockton-Sacramento round trip feeder bus is operated.

In FY 1990, ridership on the Sacramento Valley bus route totalled 49,944, an average of 137 per day.

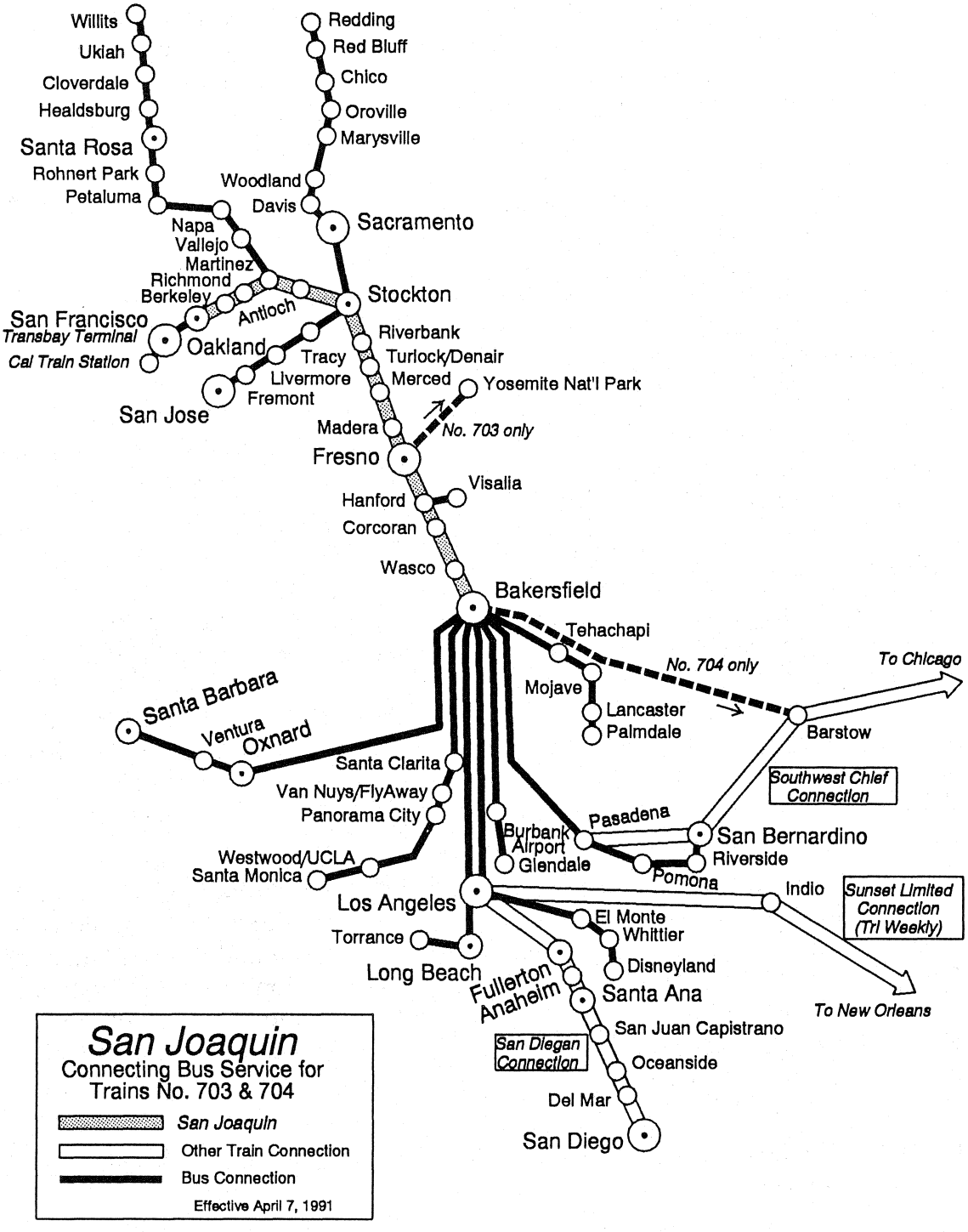


Figure 20. San Joaquin Connecting Bus Service for Trains No. 703 and 704

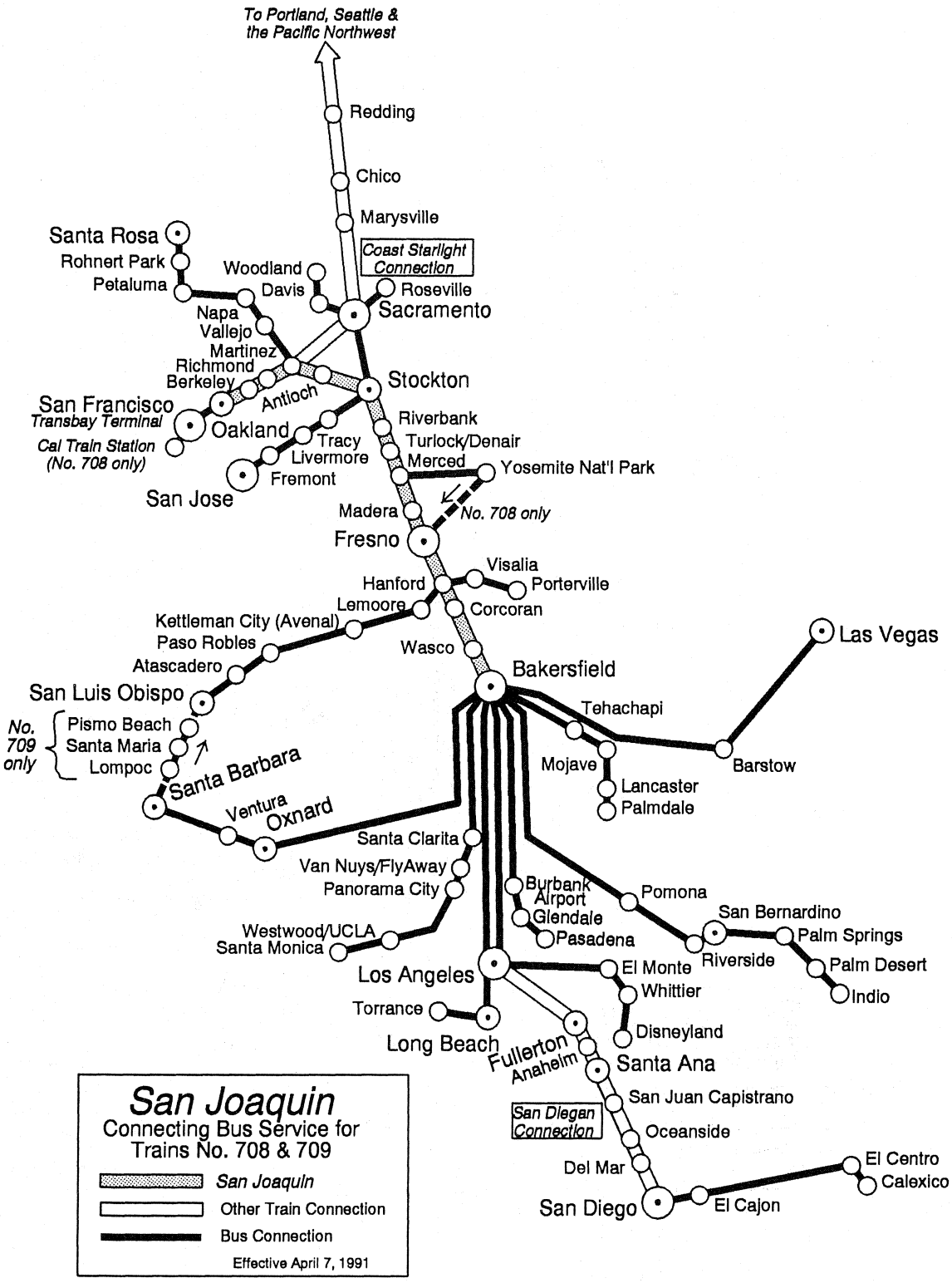


Figure 21. San Joaquin Connecting Bus Service for Trains No. 708 and 709

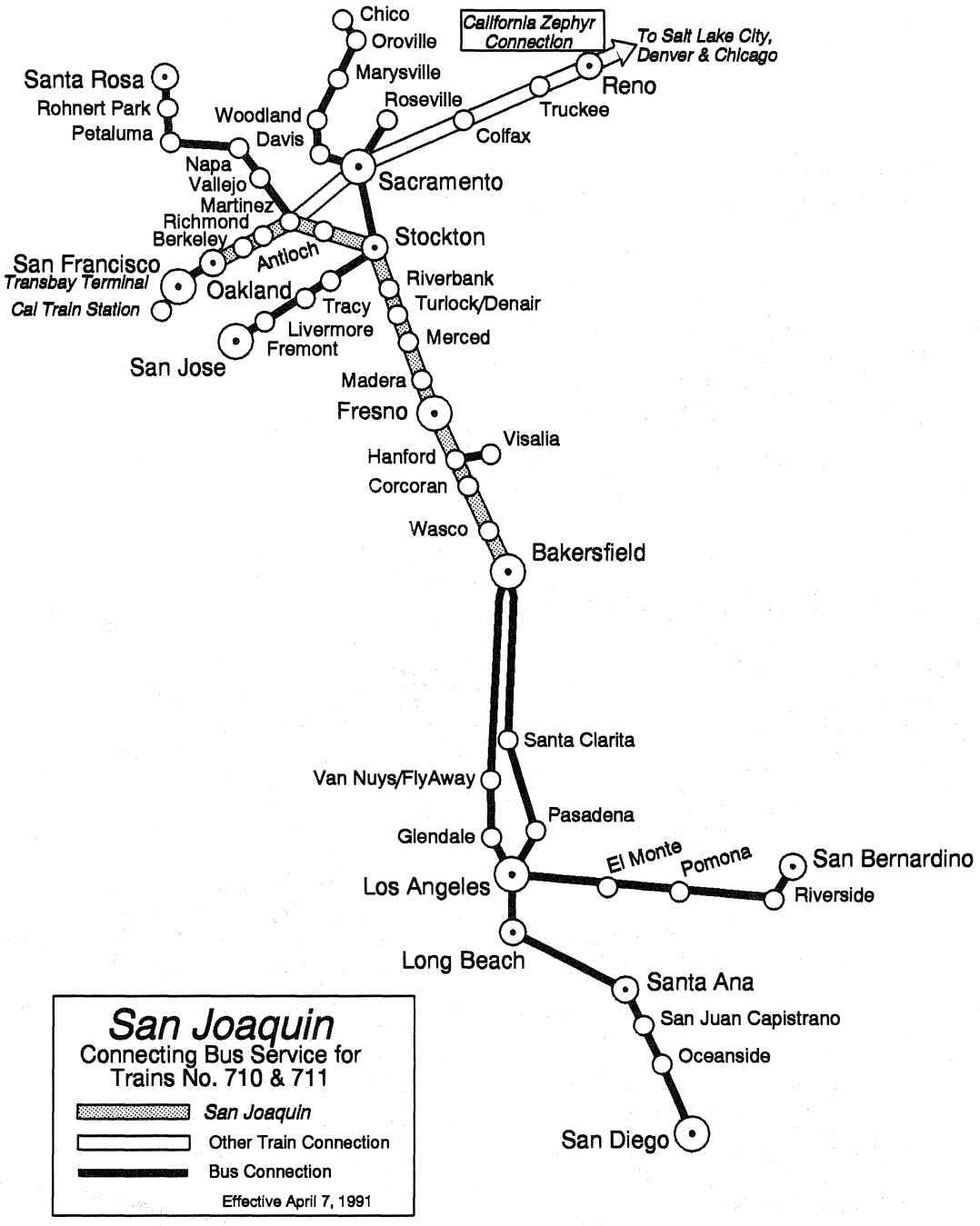


Figure 22. San Joaquin Connecting Bus Service for Trains No. 710 and 711

Bakersfield-Los Angeles Basin

The Bakersfield-Los Angeles basin bus service consists of seven separate routes. Five of these connect with Trains 703, 704, 708 and 709, while the other two connect with Trains 710 and 711.

The five routes connecting with Trains 703, 704, 708 and 709 are as follows:

1) Bakersfield-Los Angeles-Long Beach-Torrance.
2) Bakersfield-Los Angeles-El Monte-Whittier-Disneyland.
3) Bakersfield-Santa Clarita-Van Nuys-Hollywood-Westwood/UCLA-Santa Monica.
4) Bakersfield-(Pasadena, Trains 703-704 only)-Pomona-San Bernardino-Riverside. For Trains 708-709 only, this route is extended to Palm Springs-Palm Desert-Indio.
5) Bakersfield-Burbank Airport-Glendale-(Pasadena, Trains 708-709 only)-Los Angeles.

Prior to April 1, 1990, route 2 operated from Los Angeles to Hollywood-West Los Angeles-Santa Monica, while route 3 operated from Van Nuys to Chatsworth-Simi Valley-Thousand Oaks. Due to low ridership, Caltrans decided to discontinue *San Joaquin* bus service to the later three stops, replacing them with El Monte and Whittier. This change allowed the route 3 bus to operate via a more direct route to Hollywood-West Los Angeles-Santa Monica, saving almost an hour in running time to these points. At the same time, the West Los Angeles stop was moved a short distance into Westwood Village, adjacent to the University of California at Los Angeles campus, and redesignated "Westwood/UCLA".

At the suggestion of Amtrak, Disneyland was added to route 2 on October 28, 1990. This change allowed passengers to make a direct connection between the train at Bakersfield and the theme park in Anaheim. Previously, Disneyland passengers were required to transfer from the bus to a *San Diegan* at Los Angeles and then use local transportation from the Fullerton or Anaheim train station to the park.

The route 5 bus connecting with Trains 703 and 704 does not serve Pasadena, but instead operates directly between Glendale and Los Angeles. This allows the route 5 bus to act as overload protection to the route 1 and 2 buses operating non-stop between Bakersfield and Los Angeles. Pasadena passengers for Trains 703 and 704 are handled by the route 4 bus to provide non-stop service, facilitating the connections with *The Southwest Chief* at Pasadena. For Trains 708 and 709, however, the route 4 bus operates to and from Indio. Inclusion of Pasadena on this schedule would have resulted in a longer running time on what is already a six hour bus trip and exacerbated the problem of overloading on this route. Consequently, the route 5 bus handles Pasadena passengers for Trains 708 and 709. After arriving in Pasadena southbound, the bus lays over for about an hour, then provides connecting service from Pasadena to Los Angeles for *San Diegan* passengers. Northbound, the process is reversed with a somewhat longer layover in Pasadena.

The two routes connecting with Trains 710 and 711 operate as follows:

6) Bakersfield-Santa Clarita-Pasadena-Los Angeles-Long Beach-Santa Ana-San Juan Capistrano-Oceanside-San Diego.

7) Bakersfield-Van Nuys-Glendale-Los Angeles-El Monte-Pomona-San Bernardino-Riverside.

The San Juan Capistrano stop was added to route 6 on April 1, 1990.

Route 7 was added on October 28, 1990. Before that date, a single route operated between Bakersfield and San Diego, serving Van Nuys and Glendale instead of Pasadena. The frequent requirement to operate extra buses between Bakersfield and Los Angeles, to meet demand, demonstrated the need to add a second route. This addition offered more capacity between Bakersfield and Los Angeles, allowed new stops at Pasadena, El Monte, Pomona, San Bernardino and Riverside and avoided the operation of extra buses to Los Angeles. Data indicates strong ridership for this new route, particularly to and from Pomona, San Bernardino and Riverside.

Travel to and from Southern California using the Bakersfield bus connections generates a significant portion of the *San Joaquins'* ridership and revenue. Nearly 31.6 percent of all train riders use the various Los Angeles area buses, and the revenue impact is considerably larger since Los Angeles area passengers travel longer distances, and thus generate a higher average revenue per ticket than riders whose trip does not extend south of Bakersfield. Actual bus ridership in and out of the Los Angeles basin for Fiscal Year 1989/90 totalled 132,620, an average of 363 per day.

Bakersfield-Barstow-Las Vegas

Until October 28, 1990, a bus connection between Bakersfield and Barstow provided a direct "bridge" link between *San Joaquin* Trains 708 and 709 and the *Desert Wind,* which operates to Las Vegas, Salt Lake City and points east. *Desert Wind* schedule changes in October 1990 broke the eastbound connection, and made the westbound connection too close to be reliable.

Caltrans wished to continue service to Las Vegas since ridership had grown to a level which made the bus route virtually self-supporting. In fact, no operating subsidy was required for the months of July and August 1990.

To preserve the bus ridership, Caltrans proposed extending the route beyond Barstow to Las Vegas. This strategy would maintain the Las Vegas connection from San Joaquin Valley points. Passengers traveling to or from points east of Las Vegas would be able to make their trip with a one day stop-over in Las Vegas at no extra fare. Accordingly, the bus route was extended to Las Vegas on October 28, 1990.

The Bakersfield-Barstow route was the first "mixed-mode" route in the California feeder bus network. It was scheduled specifically to link with the trains, but the operator--Orange Belt Stages--included the schedule as part of its regular intercity

bus service between Bakersfield and Barstow. This permitted local (non-Amtrak) passengers to use the bus as well. The mixed-mode arrangement significantly reduced the overall cost of providing the service for both Caltrans and Orange Belt Stages, resulting in the addition of a third regularly scheduled bus round trip between Bakersfield and Barstow.

With extension of the route to Las Vegas, the Bakersfield-Barstow portion continues to operate under the mixed-mode arrangement, while the Barstow-Las Vegas portion is dedicated service for Amtrak passengers only.

In FY 1989/90, the Bakersfield-Barstow route carried 7,480 passengers, an average of 20 per day.

Bakersfield-Lancaster-Palmdale

On April 1, 1990, a new feeder route was started between Bakersfield and the Antelope Valley cities of Lancaster and Palmdale via Tehachapi and Mojave. There are two daily round trips connecting with Trains 703, 704, 708 and 709.

Caltrans requested Amtrak to solicit bids for operation of the route optionally as a dedicated feeder or as a mixed-mode route. The successful low bidder was Orange Belt Stages which offered the mixed-mode option at a substantial savings. Orange Belt already possessed common carrier operating rights between Bakersfield and Mojave, the route of the Bakersfield-Barstow route described above. Common carrier rights between Mojave and Palmdale are the property of Western Greyhound Lines. Orange Belt made arrangements to lease operating authority from Greyhound for this portion of the route (as well as the Lancaster-Los Angeles route described in Chapter IV), permitting the entire route to be operated mixed-mode.

Equipment for this route and the Lancaster-Los Angeles *San Diegan* feeder is pooled, permitting all buses to be serviced at Orange Belt's facility in Bakersfield.

Bakersfield-Santa Barbara

A daytime feeder bus links Ventura and Santa Barbara Counties with *San Joaquin* Trains 703, 704, 708 and 709 at Bakersfield. Stops include Oxnard, Ventura and Santa Barbara. In addition to providing connections between these points and the San Joaquin Valley, the route also serves as an alternate route between the Bay Area or Sacramento and Santa Barbara or Oxnard when the *Coast Starlight* is delayed or sold out.

Ridership for the Bakersfield-Santa Barbara route has shown consistent growth since its introduction in 1988. From December 1989, when the second round trip was introduced, through June 1990, the route averaged 14 passengers per day, with much stronger ridership at peak periods.

Hanford-Tulare County

The Tulare County bus route offers a connection between the *San Joaquins* at Hanford and Visalia. This connection is available for passengers traveling to or from both points north and south of Hanford. In addition, a connection is available for passengers on Trains 708 and 709 (to or from points north of Hanford) beyond Visalia to Porterville.

This service is operated using the "mixed-mode" concept. The feeder service is part of the regular route structure of an intercity bus carrier (in this case Orange Belt Stages). The buses carry both Amtrak passengers (using Amtrak tickets) and Orange Belt's own passenger (using bus tickets). The operator is paid an amount per passenger based on the number and destination of Amtrak tickets honored by the bus company and is guaranteed a minimum monthly payment. This guarantee is less than the monthly cost of providing a bus exclusively for Amtrak passengers on the route. In addition to providing the feeder service for Amtrak passengers, the financial arrangement permits the operator to provide more local bus service than would otherwise be available.

In Fiscal Year 1989/90, this route averaged 17 passengers per day.

Hanford-San Luis Obispo

The introduction of the *San Diegan* feeder between Santa Barbara and San Luis Obispo on October 28, 1990 (see *San Diegan* Route below), afforded Caltrans the opportunity to provide a *San Joaquin* connection between Hanford and San Luis Obispo at minimal additional cost. This was done by extending Orange Belt Stages' existing Hanford-Paso Robles route to San Luis Obispo and through-routing it with the new Santa Barbara service.

The *San Joaquin* connection provides one round trip daily serving Lemoore (stop for Lemoore Naval Air Station), Kettleman City (stop for Avenal State Prison), Paso Robles, Atascadero and San Luis Obispo. Connections are provided to and from points north of Hanford via Trains 709 and 708. Connections may also be made from points south of Hanford via Train 703; however, there is no corresponding connection in the other direction. As part of an existing intercity service, the Hanford-Paso Robles segment is operated on a mixed-mode basis, while service south of Paso Robles is for Amtrak passengers only.

Initial ridership for the route has been encouraging. If demand for the service continues to grow, Caltrans will consider adding a second round trip to the route.

Martinez-Sonoma County

The Sonoma County route connects the *San Joaquins* at Martinez with Vallejo/Marine World-Africa USA, Napa, Petaluma, Rohnert Park and Santa Rosa. Three round trips operate daily using two buses. Effective April 7, 1991, the round trip connecting with Trains 703 and 704 was extended north to Mendocino County, serving Healdsburg, Cloverdale, Ukiah and Willits.

In FY 1989/90 the Sonoma County route averaged 33 passengers per day.

Stockton-San Jose

The Santa Clara County feeder bus route connects San Jose and Livermore with the *San Joaquins* at Stockton. There are three round trips daily. At San Jose, connections are available with CalTrain service to and from Peninsula points and with the Santa Cruz CalTrain Connector bus service to and from Santa Cruz.

In addition to serving trips between Santa Clara County and the San Joaquin Valley, this routes provides an alternative routing for San Jose-Los Angeles trips when the *Coast Starlight* is delayed or sold out. Ridership on this route showed a marked increase in December 1989, with the addition of the third train round trip, and averaged 37 passengers per day for the remainder of the 1989/90 fiscal year.

On April 7, 1991, Caltrans reintroduced two intermediate stops which were previously discontinued--Fremont and Tracy. The route originally had an intermediate stop at the Fremont BART station. Unfortunately, location of the BART station required a rather lengthy side trip which could not be justified by the number of riders using the stop. Caltrans has just completed a new park-and-ride lot at the Mission Blvd. interchange with I-680 in the Mission San Jose district of Fremont. This new location allows a convenient stop with only a minor impact on overall running time for the route.

The Tracy stop was discontinued in October 1989, at a time when Amtrak was experiencing capacity constraints in the Arrow computer system. In order for Caltrans to add new stops (such as the Palm Springs-Indio extension in Southern California), Amtrak required that some of the less patronized stops, such as Tracy, be discontinued. The capacity problem in Arrow has now been solved. As a result of strong community support from the residents of Tracy, in the form of letters and petitions, Caltrans reinstated the Tracy stop.

Yosemite-Fresno/Merced

On April 1, 1990, two connecting routes to Yosemite National Park became part of the Amtrak Thruway bus network. Both are operated by Yosemite Gray Line on a mixed-mode basis. The first route, for which there is no financial support by Caltrans or Amtrak, operates between Yosemite and Merced. It provides one round trip daily connecting with *San Joaquin* Trains 709 and 708 to and from the San Francisco Bay Area and serves the popular Bay Area-Yosemite one-day tour.

The second route operates one round trip daily between Yosemite and Fresno, connecting with *San Joaquin* Trains 703 and 708. This route provides convenient daytime transportation between Yosemite and Southern California. Caltrans reimburses the operator for a portion of the operating deficit in a manner generally similar to other mixed-mode operations.

Proposed Improvement

Caltrans is continually evaluating new Amtrak connecting and feeder bus routes as well as expansions of existing routes which will increase ridership and improve the financial performance of the service. In places where ridership does not grow to levels adequate to achieve a cost-effective operation, bus service should be withdrawn, with cost savings redirected to more heavily used State-supported Amtrak services.

Caltrans has identified one bus service improvement which is projected to provide cost-effective service enhancements to the *San Joaquin* route. The bus service improvement proposed by Caltrans for implementation over the period of this Plan is as follows:

> Provide new service between Stockton, Sacramento, Roseville, Auburn, Colfax, Boreal (winter season ski stop), Truckee and Reno. Estimated annual ridership for this new route is about 10,500. Annual bus and train revenue generated would be about $265,000, at a cost of $437,000, resulting in farebox recovery ratio of 61 percent.

Due to unforeseen circumstances--such as institutional barriers, availability of funding, or technical problems--it is not possible to identify when this improvement can be implemented.

SAN DIEGAN ROUTE

While most of the bus routes serve as feeders to the *San Joaquin,* four routes do provide service expressly for *San Diegan* passengers. Figure 23 depicts the feeder buses operated to connect with the *San Diegan* trains. In addition, the Bakersfield-Southern California bus service for the *San Joaquins* also serves as a *San Diegan* feeder between Bakersfield and Los Angeles, as well as providing an interconnection between the two train services. The *San Joaquin* feeder route also provides a single daily *San Diegan* connection between Pasadena and Los Angeles. The Bakersfield-Southern California route is previously described in the *San Joaquin* route section of this Chapter.

Los Angeles-Oxnard-Santa Barbara

This route connects Santa Barbara, Ventura, Oxnard, Thousand Oaks, Simi Valley, Chatsworth, Van Nuys and Glendale with the *San Diegans* at Los Angeles. The route supplements *San Diegan* train service between Santa Barbara and Los Angeles, offering passengers a variety of departure and arrival times. The *Coast Starlight* also provides service between Los Angeles and Santa Barbara with stops at Glendale, Simi Valley and Oxnard.

With the inauguration of the second train round-trip between Los Angeles and Santa Barbara on October 28, 1990, connecting bus service on this route was reduced by approximately 35 percent. Current bus service includes two Santa Barbara-Los Angeles round trips, one Chatsworth-Los Angeles round trip

Figure 23. San Diegan Train and Connecting Bus Service

and one round trip which operates inbound from Thousand Oaks to Los Angeles in the early morning and outbound from Los Angeles to Santa Barbara in the late evening. This service level requires the regular assignment of two buses. Extension of additional *San Diegans* to Santa Barbara will likely include corresponding reductions in bus service on this route.

Schedule adjustments, and operation of the route by a different contractor, have resulted in a marked improvement in reliability. Traffic congestion and highway reconstruction, however, still have a negative impact on performance.

Los Angeles-Palmdale-Lancaster

This route, started on April 1, 1990, provides one round trip connecting Lancaster, Palmdale and Santa Clarita with the *San Diegan* train service to and from Orange and San Diego Counties. Southbound, the train connection is made at Glendale, while northbound the connection is at Los Angeles. (The northbound bus also provides the connection to Glendale and Van Nuys from Train 581.) Connections are also available at Glendale for travel between Lancaster, Palmdale and Santa Clarita and Ventura and Santa Barbara County points via the *Coast Starlight* (westbound) and the *San Diegan* (eastbound).

The bus service is operated by Orange Belt Stages on a mixed-mode basis through a special arrangement between Orange Belt Stages and Greyhound. Equipment is cycled with the Bakersfield-Palmdale *San Joaquin* feeder, also operated by Orange Belt Stages (see Chapter IV).

Santa Barbara-San Luis Obispo

With the introduction of the second *San Diegan* train serving the Los Angeles-Santa Barbara route, on October 28, 1990, new connecting bus service between Santa Barbara and San Luis Obispo was also initiated. The route offers twice daily service connecting with both round-trip trains at Santa Barbara. Intermediate stops are made at Lompoc (stop for Vandenburg Air Force Base), Santa Maria and Pismo Beach.

This route immediately became one of the most successful new bus services in the California system. On several occasions during the Thanksgiving and Christmas holiday periods of 1990 (within two months of start of service) extra buses were required to meet demand. While Caltrans had expected strong ridership to and from San Luis Obispo, a station which has always provided substantial numbers of passengers for the *Coast Starlight,* passenger counts at the intermediate stops were much stronger than expected. None of these three stops has ever had Amtrak service before.

Operationally, the service is through-routed with the Hanford-San Luis Obispo *San Joaquin* feeder, thus reducing equipment requirements.

San Diego-Calexico

This route connects the Imperial Valley with *San Diegan* service at San Diego. There are two daily round trips, making stops at Calexico (just across the border from Mexicali, Baja California, Mexico), El Centro and El Cajon. Western Greyhound Lines operates the service on a mixed-mode basis. Under this arrangement, Greyhound is paid a fixed price-per-mile for providing the bus service, and is then permitted to sell any seats not occupied by Amtrak passengers to riders holding Greyhound tickets.

In the first year of operation, ridership on this route has been disappointing. Several factors have contributed to the poor ridership. Amtrak tickets were not available at the Greyhound depot in Calexico until October 1990, one year after start of operation, and they are still not available at the El Centro depot. There were some operational problems with the service as a result of the Greyhound strike, which began in March 1990, largely due to the use of inexperienced drivers. In addition, since there has been no rail passenger service in the area since the mid-1950s, use of the train is not an option that is normally considered by area residents. Greyhound offers several trips daily between the Imperial Valley and the Los Angeles area which, although no faster than the Amtrak service, do not require a transfer. Finally, lack of an Amtrak "presence" in the Valley means that most travel agencies are not in the habit of offering their customers Amtrak as a travel option.

Caltrans intends to aggressively market the service in an attempt to improve ridership. If this effort is not successful, the route will be discontinued.

RECOMMENDATION

- While the connecting and feeder bus network is operated in support of the *San Diegan* and *San Joaquin* rail services, and is not provided in lieu of existing or future direct rail service, the bus network will be further developed to serve new markets where opportunities exist to increase rail ridership and improve the financial performance of these routes. A specific proposed *San Joaquin* improvement is listed above. Also, in places where ridership does not grow to levels adequate to achieve a cost-effective service, the service should be withdrawn, with cost savings redirected to more heavily used State-supported Amtrak services.

Chapter VI - Proposed Intercity Services

Since Caltrans began its support of intercity rail passenger service in 1976, a number of new routes have been suggested or proposed for development. Legislation passed shortly after creation of the rail program (SB 283, Chapter 1130, Statutes of 1975) directed Caltrans to develop a "program of projects" to extend intercity rail service, by identifying and evaluating potential routes and services.

As will be discussed in Chapter VII, five priority intercity corridors are eligible for Proposition 108 bond funding for capital improvements. Three of these corridors (Los Angeles to San Diego, Los Angeles to Santa Barbara and Los Angeles-Fresno-San Francisco Bay Area/Sacramento) already have State-supported rail and connecting feeder bus service, and are discussed elsewhere in this *Plan*. The other two corridors (Placer County-Sacramento-Oakland-San Jose and San Francisco Bay Area-Eureka) are discussed in this Chapter. The San Francisco-Monterey route will be studied to determine the feasibility of providing rail passenger service in this corridor. The feasibility of providing equipment for a Coast Route overnight service (Sacramento-Oakland-Santa Barbara-Los Angeles) is also reviewed here in response to Assembly Bill 3671. Finally, this Chapter discusses the study being conducted by the Riverside County Transportation Commission of proposed service on the Los Angeles-Coachella Valley-Calexico route.

PLACER COUNTY-SACRAMENTO-OAKLAND-SAN JOSE CORRIDOR

ACR 132 Corridor Upgrade Study

The National Strategic Transportation Planning Study (NSTPS) found that a potential solution to congestion in the I-80 route was transit improvement, including improved intercity rail service. The I-80 route is in the Placer County-Sacramento-Oakland-San Jose corridor. Following the NSTPS finding, Assembly Concurrent Resolution 132 (Resolution Chapter 136, Statutes of 1988) requested the Metropolitan Transportation Commission (MTC), in cooperation with the Sacramento Area Council of Governments and Caltrans, to conduct an intercity rail corridor upgrade study on this route. MTC contracted with Wilbur Smith Associates to perform this study.

Phase I of the MTC study considered seven scenarios (which are summarized in Chapter VII of the 1990 Rail Passenger Development Plan) and recommended Scenario II-B as the first increment of corridor development.

Phase II of the study, included in MTC's Final Report issued in November 1990,[1] provided a more comprehensive investigation of Scenario II-B, which examined the following three stages:

- Stage 1 - Provides for three trains in each direction between Sacramento, Oakland and San Jose.
- Stage 2 - Provides for six round trips between Sacramento and San Jose, with through service to Placer County.
- Stage 3 - Increases service to ten round trips. In addition, the maximum speed between Benicia and West Sacramento would be increased to 79 miles-per-hour by various upgrade projects.

Capital costs for implementation of Stages 1, 2 and 3 are estimated at $14.7 million, $31.7 million and $70.6 million respectively, for a total cost of $117.0 million. Funding sources for capital expenditures include Propositions 108 and 116, Transportation Development Act revenues, local tax increment revenues, special local transportation sales tax revenues and private sources. Principal expenditures are for stations, track and signal improvements, station facilities, structures and rolling stock.

A conservative estimate of patronage envisions 2,800 passengers per day in Fiscal Year 1994, increasing to 8,700 passengers per day by the year 2010. Ridership at these levels would provide farebox recovery of operating costs exceeding State requirements. Figure 24 summarizes key operating and capital data for each stage.

HR 14 Service Implementation Report

On March 21, 1991, the Assembly adopted House Resolution 14, which requests Caltrans to provide a report to the Legislature every two months on the status of efforts underway to operate additional train service in this corridor. Caltrans first two reports in response to HR 14 were submitted in April and June 1991. The reports stated that implementation of additional rail passenger service is a high priority of Caltrans. However, there are several obstacles which impede Caltrans ability to implement the service quickly.

First, equipment must be secured. The first "California Cars" will not be available before mid-1993. To start service in advance of that date, Caltrans is working with Amtrak on reassigning existing Horizon or Amfleet equipment from other routes, and to identify at least two locomotives for use on this corridor. Caltrans is also working with Amtrak to reach an agreement covering sufficient new Horizon cars for this corridor, and is investigating other potential sources of equipment. Funding to lease interim equipment must be identified.

Second, route options between Oakland and San Jose must be determined. Southern Pacific (SP) recommends use of the Hayward Line from Oakland to Niles Junction, then to Newark via the Centerville Line and south to San Jose on the

[1] ACR 132 Intercity Rail Corridor Upgrade Study, Final Report, November 30, 1990. Prepared for the Metropolitan Transportation Commission by Wilbur Smith Associates.

SUMMARY OF SHORT-RANGE UPGRADE PROGRAM Placer County-Sacramento-Oakland-San Jose ACR-132 Intercity Rail Corridor				
Item	**Stage 1** (FY 1992/93)	**Stage 2** (FY 1994/98)	**Stage 3** (FY 1999/2000)	**Total** (9 Years)
A. Service Levels and Projected Patronage				
Trains per Day (One-Way)	6	12	20	
Feeder Bus Runs/Day	10	17-23	35	
Number of Stations	8	13	19	
Annual One Way Rail Passenger Trips (millions)		1.314	2.190	11.352
B. Capital Costs ($1990 millions)				
Auburn/San Jose				
Stations		$ 6.0		$ 6.0
Station Facility		$ 1.2		$ 1.2
Track & Signal Improvements		$ 4.1		$ 4.1
Structures			$ 23.7	$ 23.7
Davis/San Jose				
Stations		$ 9.0		$ 9.0
Station Facility		$ 0.1		$ 0.1
Track & Signal Improvements	$ 1.9	$ 4.9	$ 32.9	$ 39.7
Structures			$ 1.2	$ 1.2
Subtotal: Construction	**$ 1.9**	**$ 25.3**	**$ 57.8**	**$ 85.0**
Rolling Stock	**$ 12.8**	**$ 6.4**	**$ 12.8**	**$ 32.0**
Total	**$ 14.7**	**$ 31.7**	**$ 70.6**	**$ 117.0**
C. Operating & Maintenance (O&M) Costs and Revenues (millions including escalation)				
Annual O&M Costs	$ 10.2	$ 19.2	$ 34.9	$ 186.6
Annual Operating Revenue	$ 6.4	$ 15.5	$ 30.5	$ 141.9
Operating Surplus (Deficit)	($ 3.8)	($ 3.7)	($ 4.4)	($ 44.7)
D. Farebox Recovery Ratio	**63%**	**81%**	**87%**	**76%**

Figure 24. ACR 132 Summary of Short-Range Upgrade Program

Mulford Line. Caltrans has inspected all possible route segments in conjunction with SP, and has met with SP to discuss long and short term capital projects in relation to route selection. Caltrans is exploring the feasibility of extending initial corridor service to Placer County serving Amtrak's Roseville station.

Third, funding for capital projects must be specified. In the near term, it is expected that no major capital projects will be required before service begins. Train schedules have been developed and submitted to Amtrak based upon current operating speeds. For the longer term, Caltrans has prioritized projects based upon impact on service, and has analyzed speed restrictions to determine where track speeds can be increased with minimal investment.

Caltrans will continue to pursue both individual and joint discussions, as appropriate, with Amtrak and Southern Pacific to implement proposed service as soon as possible, if equipment becomes available. The proposed service includes three round-trips between Sacramento, Oakland and San Jose, with one round trip extended to Roseville, and appropriate connecting feeder bus service. Figure 7 in the Key Maps section illustrates this corridor -- which has been designated the Capitol Corridor.

SAN FRANCISCO BAY AREA-EUREKA

This route is eligible to receive funding for capital improvements from the Proposition 108 rail bond.

In 1991 Caltrans will enter into a consultant contract to conduct a San Francisco Bay Area-Eureka Intercity Rail Passenger Corridor Study. The funds available for the study ($210,000 from Proposition 108 bond funding) are for intercity rail passenger purposes only. However, it will be necessary for the study to consider the interrelationships with freight service and proposed commuter/light rail service.

Phase I of the study will evaluate the potential for intercity rail passenger service and inventory the condition of the line. A key element of the study will be to determine if such a service has the potential to reach the statutory 55 percent farebox ratio. If Phase I makes such a determination, Phase II would be undertaken to identify capital projects necessary to implement service. An advisory committee consisting of representatives of the counties; regional transportation planning agencies; railroads; the Golden Gate Bridge, Highway and Transportation District; Amtrak and the North Coast Railroad Authority was established to assist Caltrans conduct the study.

SAN FRANCISCO-MONTEREY

The Budget Act of 1991 appropriates $100,000 in State funding for a passenger rail feasibility study for the Gilroy-Monterey portion of the San Francisco-Monterey rail corridor. Caltrans will enter into a consultant contract to conduct this study which will update the Caltrans October 1981 report "Feasibility of Rail Passenger Service, San Francisco/Monterey".

The results of the new study will provide the Legislature and Caltrans with updated ridership, revenue, operating and capital cost estimates to evaluate the feasibility of implementing passenger train service between San Francisco and Monterey. Other key elements to be addressed by the study include proposed service levels in the near term and beyond, coordination with other connecting transportation services, availability of right-of-way into downtown Monterey, equipment availability and cost, and identification of required capital projects including station needs. Caltrans will form an advisory committee to insure the study is fully coordinated with all appropriate local agencies and other interested entities. Proposition 116 provides the Monterey County Transportation Commission with $17 million for rail projects.

SACRAMENTO-LOS ANGELES COAST ROUTE OVERNIGHT SERVICE

Background

Section 2(a), Assembly Bill 3671, Eastin (Chapter 298, Statutes of 1990), requires Caltrans to determine "the feasibility of procuring and modifying Horizon Fleet or Superliner-type coaches for use in potential overnight service between Sacramento, the San Francisco Bay Area, Santa Barbara and Los Angeles." The information below has been provided to the Legislature in response to AB 3671.

Representatives of Caltrans have met with Amtrak to determine whether they have any Superliner equipment that might be made available and whether they have available Horizon cars that can be equipped with the appropriate amenities for use in overnight service. Caltrans also inquired if either type of equipment were available, what conditions would govern conversion and what the estimated cost to the State would be for each type. Also, they were asked how many Heritage sleeping cars are available that might be converted from steam to head-end electrical power (HEP) to permit operation with standard coaches, the cost for rehabilitating those cars and the time required to complete that work.

Equipment Availability and Needs

Amtrak has informed Caltrans that they have no Superliner or Horizon fleet cars available for use in a potential overnight service between Sacramento, the San Francisco Bay Area, Santa Barbara and Los Angeles because they currently have severe equipment shortages. They do have eighteen Heritage sleeping cars in

severe equipment shortages. They do have eighteen Heritage sleeping cars in storage that contain ten single roomettes and six bedrooms that could be converted from steam power to HEP and four Heritage sleeping cars with sixteen roomettes and four bedrooms that are also suitable for conversion. The preliminary cost estimate for conversion is $750,000 per car. The time required for conversion would depend upon the existing work underway at Amtrak's shops when an agreement is actually negotiated.

Amtrak has suggested that other equipment might be available as follows:

1) A direct purchase from Bombardier could provide additional Horizon cars. Delivery could begin as soon as one year. Cost would likely be about $1 million per car.
2) Amtrak has a limited number of damaged Amfleet coaches which could be repaired and overhauled at a cost of about $490,000 each.
3) Amtrak has a number of Capitoliner cars which could be overhauled to become Amfleet compatible at a cost of about $600,000 each.

Amtrak has indicated that it would be at least one year before shop space would be available to begin any repair or overhaul work.

In addition to the Amtrak equipment, the Delaware Car Company has some car shells that might be purchased and outfitted for an estimated cost of $1 million each.

There is a critical need for additional locomotives nationally. Amtrak has solicited bids for a locomotive order and awarded a contract. The estimated cost for Caltrans to add to that order to obtain delivery in approximately eighteen months is $1.8 million per locomotive.

Following is an estimate of the equipment (showing approximate purchase, conversion, or overhaul costs) needed to operate overnight service between Sacramento, the San Francisco Bay Area, Santa Barbara and Los Angeles:

Two locomotives	$ 3,600,000
Five sleeping cars	3,750,000
Eight coaches	8,000,000
Three diners	3,300,000
Total	$ 18,650,000

Equipment Financing

Section 2 (b) of AB 3671 requires Caltrans to determine the most cost-effective method for financing procurement of capital equipment and to specifically identify potential revenue sources.

Rolling stock can be procured through a lease purchase arrangement with either the manufacturer or a leasing company, or through a direct procurement process. Generally, the lowest cost can be obtained through a direct procurement process using either competitive bids or a negotiated purchase.

State funding sources that might be used for procurement of rolling stock are as follows:

1) The Transit Capital Improvement Program. This is a competitive process, and current applications greatly exceed the available funding.
2) Section 99628 of The Clean Air and Transportation Improvement Act of 1990 (Proposition 116) allocated $73 million dollars to small rural counties, including San Luis Obispo. San Luis Obispo's share, approximately $10 million, could be allocated for equipment for this service but would be subject to the standardized equipment requirement as described in Section 99603, of Proposition 116.
3) Direct legislative appropriation.

The rail bond capital funds provided in Proposition 108 are not available for the equipment acquisition for a Coast Route overnight service because this route was not included in the list of eligible routes in Section 164.55 of the Streets and Highways Code.

An alternative method of equipment acquisition might be available through the development of a lease/purchase agreement. There are companies that provide financing for public agencies. Some manufacturers also offer financing. Funding from one of the above identified sources would still be needed, but the cost could be distributed over time. If a favorable contract can be arranged to include a safe harbor leasing element, this may be the most cost-effective method of financing the needed equipment.

Financial and Ridership Projections

Updated financial and ridership projections which were identified pursuant to Assembly Concurrent Resolution No. 66 (Resolution Chapter 142 of the Statutes of 1989) are shown in Figure 25. For presentation purposes, the chart assumes that service begins July 1, 1991. Actual operations could not begin until equipment is available and the railroad owner agrees to operate the service. No estimate can be made at this time as to when this may actually occur.

Financial and Ridership Projections for the Coast Route Overnight Service

	FY 82/83	FY 91/92	FY 92/93	FY 93/94
Train Unchanged				
Ridership (000)	82.5	100	110	120
Average Fare	32.72	38.18	40.00	41.91
Revenues (000)	2699	3818	4400	5029
Train Costs (000)	8435	9300	9600	9910
Net Operating Loss (000)	5736	5482	5200	4881
Farebox Ratio (%)	32	41	46	51
Train with New Stations				
Ridership (000)		110	122	133
Average Fare		38.52	40.60	43.00
Revenues (000)		4237	4953	5691
Train Costs (000)		9300	9600	9910
Net Operating Loss (000)		5063	4647	4219
Farebox Ratio (%)		46	52	57
Train with New Stations & Buses				
Bus Ridership (000)		15	20	25
Total Ridership (000)		125	142	156
Average Fare		45.00	48.00	51.00
Bus Revenues		675	960	1280
Train Revenues (000)		4237	4953	5691
Total Revenues (000)		4912	5913	6971
Train Costs (000)		9300	9600	9910
Bus Costs (000)		665	723	756
Total Costs (000)		9965	10323	10666
Net Operating Loss (Train & Bus) (000)		5053	4410	3695
Farebox Ratio (%)		49	57	65
Bus Summary	Daily Miles		Bus Riders (000)	
Oakland-Santa Rosa	130	1	2	2
Sacramento-Reno	264	4	5	6
Sacramento-Redding	146	3	4	5
Sacramento-So Lake Tahoe	214	3	4	6
Glendale-Indio	258	4	5	6
Total (Bus Miles/Riders)	1012	15	20	25
Bus Cost Calculations				
Total Bus Miles (Daily)		1012	1100	1150
Days/Year		365	365	365
Cost/Mile		1.80	1.80	1.80
Total Bus Costs (000)		665	723	756

Figure 25. Financial and Ridership Projections for Coast Route Overnight Service

LOS ANGELES-COACHELLA VALLEY-CALEXICO

In 1982 Caltrans studied the possibility of putting an intercity passenger station in the Coachella Valley. At that time the Coachella Valley Association of Governments adopted a resolution approving a station site and expressing a preference for its location.

With the passage of Measure A, Riverside County's 1/2 cent sales tax, and the rail bond measures on the June 1990 ballot, renewed interest in a Los Angeles-Coachella Valley-Calexico line has been generated. In December 1990, the Riverside County Transportation Commission authorized a comprehensive study of the route.

The core line would operate from Los Angeles to Indio, with a possible extension to Calexico, the border city to Mexicali, Mexico. The route would use the existing Santa Fe tracks from Los Angeles to Colton via Fullerton; at Colton the route would use Southern Pacific tracks eastward to Indio and Niland, and then would head south on the existing Southern Pacific tracks to Calexico.

Potential station sites would include: Fullerton, Corona, Riverside, Loma Linda, Beaumont, up to three sites within the Coachella Valley Desert Cities Area, including Indio. An Imperial Valley extension would also serve Brawley and El Centro, with a terminus in Calexico.

The study will also include patronage estimates, equipment needs, track improvements and a revenue/cost assessment. The study will be submitted to the Legislature, the California Transportation Commission and Caltrans in Fall 1991.

The Coast Starlight at the new Oxnard intermodal station.

Chapter VII - The Intercity Capital Program

FUNDING SOURCES

On June 5, 1990, California voters approved three transportation funding measures which provide a significant increase to rail capital funding. These measures were:

Proposition 108: *The Passenger Rail and Clean Air Bond Act of 1990.* It provides $1 billion in general obligation bonds for capital expenditures for intercity rail, commuter rail and other rail transit programs. (Two additional $1 billion rail capital bonds measures are scheduled for the November 1992 and 1994 Statewide ballots.) The California Transportation Commission (CTC) allocates funds on the basis of guidelines adopted in December 1989, for the eligible corridors listed in this Chapter. The 1990 State Transportation Improvement Plan (STIP), adopted in September 1990, by the CTC, provides the basis for these allocations.

Proposition 111: *The Traffic Congestion Relief and Spending Limitation Act of 1990.* It increases the State's gasoline tax and truck fees over the next five years. These increased revenues will be available, in part, to the Flexible Congestion Relief and State-Local Transportation Partnership Programs, which may be used for commuter and urban rail projects. The CTC adopted funding guidelines for these programs in June and December 1990, respectively. Proposition 111 revenues will also be available for $265 million in unfunded programing in the 1988 STIP for specified commuter/urban rail projects.

Proposition 116: *The Clean Air and Transportation Improvement Act of 1990.* It provides for $1.99 billion for intercity and commuter rail services and other rail transit programs. This measure also generally specifies the amount of funds that will be available to each corridor. The CTC issued guidelines in December 1990, for the funding process and will allocate these funds to the designated recipients after reviewing and analyzing appropriate applications.

Funding is also available through the Transit Capital Improvement Program, which is funded from the Transportation Planning and Development (TP&D) Account and based on an annual application process.

With the passage of the rail bonds, adequate funding is expected to be available to provide most of the capital support required (assuming passage of the two subsequent $1 billion bond measures) to implement the new and expanded rail services which are reflected in Chapter XI of this Plan and for which budget needs have been identified.

The Passenger Rail and Clean Air Bond Act of 1990 (Proposition 108)

In order for a project to be eligible to receive Proposition 108 rail bond funds for capital improvements, it must be included in the State Transportation Improvement Program (STIP). The STIP is a seven-year program of capital improvement projects, updated biennially.

Intercity rail projects are developed by Caltrans using the best information available from Amtrak, private consultants, railroads and independent studies made by its own staff. The specific intercity rail projects to be included in the Proposed State Transportation Improvement Program (PSTIP) are, in large part, selected from the recommendations of the rail corridor studies mentioned in this Plan. Local public entities may also nominate intercity projects to Caltrans. Projects are evaluated and prioritized based on guidelines developed by Caltrans in cooperation with local transportation officials and adopted by the CTC. The Caltrans prioritized list of intercity rail projects was contained in the 1990 STIP for Proposition 108 funded projects, and in the Caltrans related proposed project list for Proposition 116 funding. The combined 1990 project list was distributed as the first Intercity Rail Program (IRP). However, as stated above, the project list is dynamic and the 1991 IRP, as shown below, now reflects some of the latest modifications. The IRP list will continue to be modified by Caltrans evaluation of potential new project nominations and by other appropriate project changes. As this review changes Proposition 108 funded projects, such changes will be reflected in the 1992 PSTIP and subsequent amendments will be proposed to the STIP.

The following corridors are eligible, by law, for State intercity rail funding through the STIP process:

- Los Angeles-San Diego
- Santa Barbara-Los Angeles
- Los Angeles-Fresno-San Francisco Bay Area and Sacramento
- San Francisco Bay Area-Sacramento-Auburn
- San Francisco-Santa Rosa-Eureka

Intercity rail projects do not require, but may include, non-State funds.

The Clean Air and Transportation Improvement Act of 1990 (Proposition 116)

This proposition was approved by the voters on June 5, 1990. It provides $1.99 billion for intercity and commuter rail services and other rail transit programs. In December 1990, the CTC issued guidelines for the funding process and will allocate these funds to the recipients as designated in Proposition 116. See Figure 26 for a summary of Proposition 116 intercity and commuter rail service projects. The Caltrans 1991 list of prioritized intercity rail projects (the

SUMMARY OF PROPOSITION 116 INTERCITY AND COMMUTER RAIL BOND PROJECTS

Projects that are primarily for intercity and/or commuter rail purposes are shown; however certain other Proposition 116 funds may also be used for intercity/commuter rail purposes. No matching funds are required for projects listed below.
($ in millions)

Amount	Recipient	Designated Project/Corridor	Type of Service
140.0	Caltrans	Los Angeles-Fresno-Bay Area/Sacramento: Service via Modesto - ($60.0 min.) Service to Sacramento - (30.0 max.)	Intercity
5.0	Caltrans	Los Angeles-Bakersfield High Speed Study	Intercity
85.0	Caltrans	Placer County-Santa Clara County (includes Sacramento-Bay Area corridor) Auburn-Davis - ($35.0 max.)	Intercity Commuter
81.0	Caltrans	Los Angeles-Santa Barbara: Ventura County - $31.0 Santa Barbara County - 17.0 Los Angeles County - 33.0	Intercity & Commuter
100.0	Caltrans	Rail Cars and Locomotives	Intercity & Commuter
6.0	Caltrans @	Humboldt County Rail Improvements	Unspecified @
4.0	Caltrans @	Mendocino County Rail Improvements	Unspecified @
202.0	LOSSAN RCA	Los Angeles-San Diego: San Diego County - $45.0 Orange County - 82.0 Los Angeles County - 75.0	Intercity & Commuter
173.0	Peninsula JPB	CalTrain Improvements, Extension to South	Commuter
17.0	Monterey County	CalTrain Extension or Other Rail Projects	Commuter
11.0	Santa Cruz County	Santa Cruz-Watsonville Jct. or Other Rail Projects	Intercity
79.0	Local JPA	San Bernardino-Riverside-Orange County: Riverside County - $47.0 Orange County - 27.0 San Bernardino County - 5.0	Commuter
98.0	Local JPA	San Bernardino-Los Angeles: Los Angeles County - $42.0 San Bernardino County - 56.0	Commuter

@ Local rail transportation authority, if established, to be substituted for Caltrans. Freight and tourist-related projects may be included.

Figure 26. Summary of Proposition 116 Intercity and Commuter Rail Bond Projects

Intercity Rail Program shown below) includes projects to be funded by Proposition 116.

Rolling Stock Acquisition Process

Proposition 116 recognized that the current shortage of rolling stock will delay the planned implementation of additional intercity and commuter rail services in California. Therefore, it contained an allocation of $100 million to design and acquire new intercity and commuter "California Cars" and locomotives especially adapted to the needs of California rail passenger service. Recognizing these needs, Caltrans is moving quickly to facilitate equipment acquisition. As mandated by Proposition 116, Caltrans also formed a Rolling Stock Advisory Committee (RSAC) which considered performance needs, operating constraints, individual equipment requirements and information on existing equipment currently available. Caltrans hired Booz-Allen & Hamilton, a company with extensive experience in rail equipment development, to assist in this effort. All cars will be handicapped accessible in compliance with the requirements of the Americans with Disabilities Act of 1990. A procurement contract is expected to be let by the end of 1991. Delivery of the first cars is expected by mid-1993.

The California Car is intended to promote passenger rail as an attractive alternative to other modes and ultimately as a primary mode in the corridors it serves. To that end, Caltrans will ensure that the California Car embody the ideals of passenger comfort and convenience, safety, efficiency and state-of-the-art technology such as that being studied through Assembly Bill 3122 (see below).

The California Car, in both intercity and commuter configurations, will include amenities which will encourage rail patronage and provide a pleasant environment for all passengers. The cars are envisioned to incorporate the latest available service-proven technologies from around the world, including passenger accommodations and amenities such as spacious and comfortable seating, telephones, computer hookups, fax machines, copier equipment and bicycle storage. All car amenities will be accessible to persons with physical disabilities in accordance with the Americans with Disabilities Act.

In conjunction with its work on the rolling stock procurement effort, Booz-Allen is also conducting the passenger rail technologies and facilities study required by Assembly Bill 3122 (Chapter 847 of the Statutes of 1990). This study will identify the availability, feasibility and approximate costs of signaling systems to enable passenger train speeds above 79 miles per hour, ticket vending machines, onboard telephone and facsimile communication systems, train arrival and departure information systems and telephone information systems.

Transit Capital Improvement Program

The Transit Capital Improvement (TCI) Program for Fiscal Year 1991/92 is to be funded from the TP&D Account (see Chapter XI). Upon completion of projects programmed in the 1988 STIP, projects previously funded from the State Highway

Account under the provisions of Article XIX of the State Constitution will be part of the Flexible Congestion Relief Program.

The TCI program includes the following seven types of projects which are eligible for funding:

- Exclusive public mass transit guideway construction and rolling stock acquisition.
- Intermodal transfer stations.
- Abandoned railroad rights-of-way acquisition.
- Short-line railroad rehabilitation.
- Passenger ferries and terminals.
- Bus rehabilitation.
- Grade separations.

Applications requesting funding are due to Caltrans in the Fall of each year. Caltrans evaluates the applications in conformance with criteria adopted by the CTC and then submits a list of projects recommended for funding to the CTC on February 1. The CTC submits its proposed list of projects to receive funding to the State Legislature on April 1. Funds are allocated by Caltrans and the CTC to the selected projects beginning in August, after the annual State budget has been enacted to provide funds for the program.

The TCI projects related to Amtrak services for Fiscal Year 1989/90 are shown below in the appropriate sections of this Chapter. The projects for Fiscal Years 1990/91 and 1991/92 are included in the IRP listing below in this Chapter, as are Caltrans proposed TCI projects for Fiscal Year 1992/93. (The projects for Fiscal Year 1991/92 are those for which funding was recommended by the CTC in its Resolution MT-91-21, dated March 21, 1991. The final list of projects to receive TCI funding is dependent upon the level of funding provided in the State Budget for Fiscal Year 1991/92. Therefore, the list of TCI projects shown in the IRP for this year is subject to change.) Commuter rail related TCI projects for Fiscal Years 1989/90, 1990/91 and 1991/92 are shown following the discussion of each service in Chapters IX and X.

Minor Capital Improvement Projects

Another source of rail capital funding was established by AB 3332 (Chapter 914, Statutes of 1988), which permits the redirection of rail and feeder bus operating funds to be used for "minor capital improvement projects" on State-supported rail lines. These are defined as projects within cost limits equal to the standards set by the CTC for "minor highway projects". Currently, this cost limit is $300,000. Caltrans identifies appropriate projects for this funding source.

THE INTERCITY RAIL PROGRAM (IRP)

This section presents Caltrans latest prioritized list of intercity rail projects known as the IRP. (See the Proposition 108 section above in this Chapter for a discussion of the process by which the intercity rail projects funded under Proposition 108 are identified in the STIP). The IRP also includes proposed intercity projects for which funding is anticipated from Proposition 116 and projects to be funded by the TCI program (for Fiscal Years 1990/91, 1991/92 and proposed by Caltrans for Fiscal Year 1992/93). Most TCI projects are submitted independently by local and regional agencies, some intercity rail projects have been incorporated (in whole or part) within a current TCI project. Therefore, the IRP project list has been updated to insure that there is no duplication of funding between current TCI projects and future rail bond projects.

Generally, route specific projects are those identified in the individual corridor upgrade studies mentioned in this Chapter for existing routes and in Chapter VI for the proposed Placer County-Sacramento-Oakland-San Jose Corridor. The IRP list is presented in the following order:

Section	Route
Summary	All Projects Statewide
A	Los Angeles-San Diego
B	Los Angeles-Santa Barbara
C	Los Angeles-Fresno-Bay Area/Sacramento
D	Placer County-Sacramento-Oakland-San Jose
E	San Francisco-Santa Rosa-Eureka
F	Other Capital Projects
G	Rolling Stock

Funding sources shown in the IRP are as follows:

Bond 108-1:	From Proposition 108 ($1 billion bond issue passed in June 1990).
Bond 108-2:	From the $1 billion bond issue to be on the November 1992 ballot.
Bond 108-3:	From the $1 billion bond issue to be on the November 1994 ballot.
Bond 116:	From Proposition 116 ($1.99 billion bond issue passed in June 1990).
TCI-TP&D:	From the Transit Capital Improvement (TCI) Program, funded by the TP&D Account. (TCI-Article XIX is funded by the State Highway Account).
Unfunded:	Projects for which a funding source has not yet been identified.

1991 INTERCITY RAIL PROGRAM SUMMARY

(Escalated dollars in thousands)

		FY 1990-91	FY 1991-92	FY 1992-93	FY 1993-94	FY 1994-95	FY 1995-96
(A) - Los Angeles-San Diego Corridor							
8016	Phase IV Rail Project - San Juan Capistrano to San Diego	$7,500					
8017	Phase IV Rail Project - San Juan Capistrano to San Diego	$2,080					
8018	Extend Santa Ana Double Track	$3,430					
9003	Time Savings Improvements	$5,554					
9004	Data Radio/Electronic Coded Track Circuits	$4,716					
8019	San Juan Capistrano Station Platform Improvements		$275				
8020	Extend Santa Ana Double Track		$118				
8022	Irvine Intermodal Station Improvements		$1,137				
8023	Santa Ana Regional Center Parking Structure		$4,500				
8029	Passing Siding at Las Pulgas		$1,950				
9002	Upgrade Sidings and Signals		$4,821				
9910	Time Savings Improvements		$3,144				
6014	New Crossovers between Los Angeles and Fullerton		$4,610				
6015	LAUPT Area Track Capacity Improvements		$8,960				
6028	Track Improvements - Redondo Jct.-Mission Tower		$5,960				
6029	LAUPT Station Improvements		$9,760				
6030	Construct Third Track at Fullerton		$3,000				
8032	Station Improvements - Fullerton			$250			
8033	Station Improvements - Anaheim			$115			
8034	Station Improvements - San Juan Capistrano			$375			
8035	Station Improvements - San Diego			$115			
9914	Fencing at Old Town San Diego			$100			
9911	Construct Double Track - Serra-San Juan Capistrano			$18,362			
6031	Construct Double Track - Serra-San Juan Capistrano			$9,652			
6032	Construct Double Track - Fullerton-Santa Ana			$13,491			
6033	Construct Double Track - Irvine-Galivan			$5,137			
6034	Station Improvements in Orange County			$1,820			

1991 INTERCITY RAIL PROGRAM SUMMARY

(Escalated dollars in thousands)

		FY 1990-91	FY 1991-92	FY 1992-93	FY 1993-94	FY 1994-95	FY 1995-96
(A) - Los Angeles-San Diego Corridor (continued)							
9038 Elvira-Old Town Double Track						$6,561	
9039 Station Improvements						$2,650	
9913 Project to be determined in San Diego County						$18,782	
7004 Advanced Signal System Improvements: Fullerton-San Diego						$25,235	
TOTAL	$174,160	$23,280	$48,235	$49,417	$0	$53,228	$0
(B) - Los Angeles-Santa Barbara Corridor							
8021 Burbank Station Site Development		$215					
8025 Acquire Glendale Station Property		$320					
8026 Ventura Station Improvements			$250				
9901 Van Nuys Station Improvements			$829				
6017 Capacity Improvements			$17,505				
8036 Van Nuys Station Improvements				$1,250			
9002 Camarillo Siding Upgrade				$1,700			
6023 Capacity Improvements				$13,825			
9015 Capacity Improvements					$6,757		
9016 Station and Track Improvements					$259		
9905 Santa Barbara Station Improvements					$2,977		
6024 Santa Barbara Station Improvements					$1,927		
9027 Install Continuous Welded Rail					$1,946		
9903 Time Savings Improvements					$725		
9035 Capacity Improvements					$5,809		
9904 Construct New Siding at East Simi Valley					$830		
9906 Improvements at New Simi Valley Station					$800		
6025 Track Improvements					$3,905		
9907 Time Savings Improvements						$223	
9908 Track Improvements						$9,500	

1991 INTERCITY RAIL PROGRAM SUMMARY

(Escalated dollars in thousands)

		FY 1990-91	FY 1991-92	FY 1992-93	FY 1993-94	FY 1994-95	FY 1995-96
(B) - Los Angeles-Santa Barbara Corridor (continued)							
9909 Tunnel Improvements						$3,375	
6021 Track Improvements						$1,099	
6020 Goleta Extension							$7,092
TOTAL	$83,118	$535	$18,584	$16,775	$25,935	$14,197	$7,092
(C) - Los Angeles-Fresno-Bay Area/Sacramento Corridor							
8004 Grade Crossing Signal Circuit Improvements		$941					
8005 Bakersfield Station Relocation		$2,000					
8006 Feasibility Study of Repairs to Corcoran Station		$20					
8007 Renovation of Hanford Station		$154					
8008 Study of Proposed Stockton Intermodal Station		$172					
9006 Station Platform Improvements		$1,572					
9008 Construct Track Connection at Stockton		$838					
8009 Provide Checked Baggage Service			$315				
8010 Renovation of Hanford Station			$225				
8011 Stations: Lodi and Manteca			$133				
8012 Right-of-Way Acquistion for Fresno Railroad Station			$1,400				
8024 Study of Proposed Stockton Intermodal Station			$578				
8028 Track Connection at Fresno			$204				
8030 Turlock Transportation Center			$30				
9005 Reconfiguration of Empire Siding			$943				
9007 Upgrade Track between Martinez and Port Chicago			$734				
6006 Construct Track Connection at Stockton			$2,239				
6022 Implement Direct Sacramento Service			$9,160				
8038 Reconfiguration of Empire Siding				$2,000			
8039 Station Improvements - Antioch				$150			

1991 INTERCITY RAIL PROGRAM SUMMARY

(Escalated dollars in thousands)

			FY 1990-91	FY 1991-92	FY 1992-93	FY 1993-94	FY 1994-95	FY 1995-96
(C) - Los Angeles-Fresno-Bay Area/Sacramento Corridor (continued)								
8040	Station Improvements - Riverbank				$200			
8041	Station Improvements - Merced				$200			
8042	Station Improvements - Fresno				$200			
8043	Station Improvements - Hanford				$500			
8044	Station Improvements - Corcoran				$115			
8045	Station Improvements - Wasco				$300			
8046	Station Improvements - Bakersfield				$2,000			
6007	New Stockton Rail-Multimodal Station				$8,002			
6008	Implement Direct Los Angeles Service				$1,953			
6009	Preliminary Engineering Study - Grapevine Alignment				$5,000			
6011	Reroute Service to SP - Fresno to Stockton					$75,368		
6012	Track and Signal Improvements						$32,806	
9018	Speed, Safety, and Comfort Projects							$30,413
9024	Speed, Safety, and Comfort Projects							$30,546
9040	Cab Signals/Automatic Train Control							$31,207
6026	Cab Signals/Automatic Train Control							$9,593
7003	Cab Signals/Automatic Train Control							$19,495
	TOTAL	$272,584	$5,696	$16,840	$20,620	$75,368	$32,806	$121,254

1991 INTERCITY RAIL PROGRAM SUMMARY

(Escalated dollars in thousands)

		FY 1990-91	FY 1991-92	FY 1992-93	FY 1993-94	FY 1994-95	FY 1995-96
(D) - Placer County-Sacramento-Oakland-San Jose Corridor							
8001 Purchase & Rehabilitation of SP Suisun Station		$500					
8002 Station Improvements at Davis Station			$63				
8003 Suisun Station Pedestrian Mall			$750				
8027 Harbor Boulevard Grade Separation			$300				
9009 New Amtrak Oakland Station at Jack London Square			$6,602				
6003 Implement Three Daily Round Trip Service			$42,105				
8049 Station Improvements - San Jose/Cahill Street				$500			
8050 Station Improvements - Richmond				$115			
8051 Station Improvements - Sacramento				$750			
8052 Station Improvements - Roseville				$300			
6004 Increase Service to Six Daily Round Trips					$29,858		
9022 Increase Service to Ten Daily Round Trips							$8,200
9036 Increase Service to Ten Daily Round Trips							$7,571
6005 Increase Service to Ten Daily Round Trips							$13,037
7002 Increase Service to Ten Daily Round Trips							$44,121
TOTAL	$154,772	$500	$49,820	$1,665	$29,858	$0	$72,929

1991 INTERCITY RAIL PROGRAM SUMMARY

(Escalated dollars in thousands)

		FY 1990-91	FY 1991-92	FY 1992-93	FY 1993-94	FY 1994-95	FY 1995-96
(E) - San Francisco-Santa Rosa-Eureka Corridor							
9010 Study to Determine Feasibility of Service			$210				
6001 Capital Improvements to be Determined				$9,765			
9017 Capital Improvements to be Determined						$1,262	
9041 Capital Improvements to be Determined						$1,893	
9023 Capital Improvements to be Determined						$3,155	
TOTAL	$16,285	$0	$210	$9,765	$0	$6,310	$0
(F) - Other Capital Projects							
8013 Construct Barstow Intermodal Station		$796					
8014 New Amtrak Station in Ontario		$340					
8015 Intermodal Facility at Pasadena Station		$600					
TOTAL	$1,736	$1,736	$0	$0	$0	$0	$0

1991 INTERCITY RAIL PROGRAM SUMMARY

(Escalated dollars in thousands)

		FY 1990-91	FY 1991-92	FY 1992-93	FY 1993-94	FY 1994-95	FY 1995-96
(G) - Rolling Stock							
9012 San Jose Maintenance Facility - Lick Site (Pullman Way)		$1,572					
9014 Acquire Cars and Locomotives			$53,995				
6002 Acquire Cars			$21,924				
8053 San Jose Maintenance Facility - Lick Site (Pullman Way)				$8,718			
9013 San Jose Maintenance Facility - Lick Site (Pullman Way)				$20,280			
9019 Acquire Cars and Locomotives				$68,672			
9028 Los Angeles Area Maintenance Facility					$12,040		
9033 Acquire Cars and Locomotives						$68,626	
7001 Acquire Cars and Locomotives						$66,873	
TOTAL	$322,700	$1,572	$75,919	$97,670	$12,040	$135,499	$0
GRAND TOTAL	$1,024,476	$33,319	$208,729	$195,912	$143,201	$242,040	$201,275

1991 INTERCITY RAIL PROGRAM

Section A

Los Angeles - San Diego Corridor

San Diegan Route

Project No.		Funding Source	Escalated Cost (000)
	FY 1990-91		
8016	Phase IV Rail Project - San Juan Capistrano to San Diego	TCI-TP&D	$7,500
8017	Phase IV Rail Project - San Juan Capistrano to San Diego Rail replacement with continuous welded rail (CWR)	TCI-Art XIX	$2,080
8018	Extend Santa Ana Double Track Between East Santa Ana and Irvine (6.7 miles) *See also Project No. 8020*	TCI-TP&D	$3,430
9003	Time Savings Improvements Project I.A.3 (Grade crossing and signalling time reduction improvements, Old Town-San Diego)	Bond 108-1	$5,554
9004	Data Radio/Electronic Coded Track Circuits Data radio (Fullerton-San Diego) and electronic coded track circuits (Irvine-San Diego)	Bond 108-1	$4,716
	FY 1991-92		
8019	San Juan Capistrano Station Platform Improvements Phase 1 - Construct 8 inches above-the-rail platform adjacent to the new parking garage (south of Verdugo Street)	TCI-TP&D	$275
8020	Extend Santa Ana Double Track Additional funding for multi-year project *See also Project No. 8018*	TCI-TP&D	$118
8022	Irvine Intermodal Station Improvements Construct far-side platform and pedestrian over/under crossing to USMC Air Station - El Toro	TCI-TP&D	$1,137
8023	Santa Ana Regional Center Parking Structure Engineering, design and construction of new 423 space parking structure	TCI-TP&D	$4,500
8029	Passing Siding at Las Pulgas Project I.D.2: Construct passing siding between San Onofre and Fallbrook Junction	TCI-TP&D	$1,950

** - Intercity share of total project cost (remaining funds represent commuter share of project)*

1991 INTERCITY RAIL PROGRAM

Section A

Los Angeles - San Diego Corridor

San Diegan Route

Project No.		Funding Source	Escalated Cost (000)	
	FY 1991-92 (continued)			
9002	Upgrade Sidings and Signals Project I.A.4 (LOSSAN I Study - SB 1095): At Anaheim, Galivan, and San Onofre sidings	Bond 108-1	$4,821	
9910	Time Savings Improvements Portion of Project I.A.1 (fencing, superelevation, and grade crossing improvements between Los Angeles and San Diego to reduce running times)	Bond 108-1	$3,144	
6014	New Crossovers between Los Angeles and Fullerton Project I.A.2: Add four track crossovers at Santa Fe Springs, LaMirada/Buena Park, Basta and Hobart Tower	Bond 116	$4,610	
6015	LAUPT Area Track Capacity Improvements Project I.A.8: LAUPT area track and signal improvements	Bond 116	$8,960	*
6028	Track Improvements - Redondo Jct.-Mission Tower	Bond 116	$5,960	*
6029	LAUPT Station Improvements	Bond 116	$9,760	*
6030	Construct Third Track at Fullerton	Bond 116	$3,000	*
	FY 1992-93			
8032	Station Improvements - Fullerton Expand and enclose ticket office and baggage room	TCI-TP&D	$250	
8033	Station Improvements - Anaheim Include lighting, signage, painting and replacement of waiting room seats	TCI-TP&D	$115	
8034	Station Improvements - San Juan Capistrano Improve existing station platform: Raise to 8 inches above top of rail and extend north 270 feet; also provide lighting and safety striping	TCI-TP&D	$375	

1991 INTERCITY RAIL PROGRAM

Section A

Los Angeles - San Diego Corridor

San Diegan Route

Project No.		Funding Source	Escalated Cost (000)	
	FY 1992-93 (continued)			
8035	Station Improvements - San Diego Install platform lighting	TCI-TP&D	$115	
9914	Fencing at Old Town San Diego Portions of Project II.B.1: To increase operating speeds	Bond 108-2	$100	
9911	Construct Double Track - Serra-San Juan Capistrano	Bond 108-2	$18,362	
6031	Construct Double Track - Serra-San Juan Capistrano Project I.D.4: Includes new San Juan Creek bridge and curve realignment	Bond 116	$9,652	
6032	Construct Double Track - Fullerton-Santa Ana	Bond 116	$13,491	*
6033	Construct Double Track - Irvine-Galivan	Bond 116	$5,137	*
6034	Station Improvements in Orange County	Bond 116	$1,820	*
	FY 1994-95			
9038	Elvira-Old Town Double Track Portions of Project II.B.1: Includes new bridges, crossovers and curve realignments to permit higher operating speeds	Bond 108-3	$6,561	*
9039	Station Improvements Project I.D.4: Install 8 inch above-the-rail platforms, pedestrian overpasses, parking expansion, and station rehabilitation at various locations	Bond 108-3	$2,650	*
9913	Project to be determined in San Diego County	Bond 108-3	$18,782	
7004	Advanced Signal System Improvements: Fullerton-San Diego	Unfunded	$25,235	

1991 INTERCITY RAIL PROGRAM

Section B

Los Angeles - Santa Barbara Corridor

San Diegan Route

Project No.		Funding Source	Escalated Cost (000)
	FY 1990-91		
8021	Burbank Station Site Development Project includes environmental assessment, preliminary engineering and design for intermodal facility	TCI-TP&D	$215
8025	Acquire Glendale Station Property Develop site into a intermodal facility	TCI-TP&D	$320
	FY 1991-92		
8026	Ventura Station Improvements Platform, shelter, lighting, landscaping and restrooms	TCI-TP&D	$250
9901	Van Nuys Station Improvements Construct station building with ticket office, improve parking lot, lighting, landscaping, install utilities connections, passenger shelter and fencing *See also Project 8036*	Bond 108-1	$829
6017	Capacity Improvements Project A.2a: CTC - Burbank Junction-Moorpark ($4160) Project A.3a: Construct double track - Raymer-Burbank ($8170) Project A.4a: Reverse running on Allen-Dayton double track ($1840) Project A.4b: Dispatcher's control machine ($45) Project A.5: Chatsworth siding upgrade (track, switches, signals) ($710) Project A.13: Moorpark siding upgrade ($2050) Project B.4b: Construct Glendale crossover ($530)	Bond 116	$17,505 *

** - Intercity share of total project cost (remaining funds represent commuter share of project)*

1991 INTERCITY RAIL PROGRAM

Section B

Los Angeles - Santa Barbara Corridor

San Diegan Route

Project No.		Funding Source	Escalated Cost (000)	
	FY 1992-93			
8036	Van Nuys Station Improvements Includes additional parking, shelters, and landscaping; lighting, signage, pedestrian walkways, platforms and drainage improvements *See also Project 9901*	TCI-TP&D	$1,250	
9002	Camarillo Siding Upgrade Project A.9	Bond 108-1	$1,700	
6023	Capacity Improvements Project A.2b: CTC - Moorpark-Goleta ($3700); *Supplemented by $1.5 million in FY 1989-90 TP&D Account (PVEA) Funds* Project A.15: Construct new siding at Carpinteria ($2,300) Project B.4a: Track improvements - Burbank Junction-Dayton Tower ($7825)	Bond 116	$13,825	*
	FY 1993-94			
9015	Capacity Improvements Project A.10: Seacliff siding upgrade ($2373) Project A.11: Ventura siding upgrade ($2590) Project B.18: Reverse running on Santa Barbara double track ($1794)	Bond 108-1	$6,757	
9016	Station and Track Improvements Project A.14: Santa Barbara service facility improvements ($54) Project A.16: Santa Barbara service track ($205)	Bond 108-1	$259	
9905	Santa Barbara Station Improvements	Bond 108-1	$2,977	
6024	Santa Barbara Station Improvements Project B.13	Bond 116	$1,927	
9027	Install Continuous Welded Rail Project B.10: Replace bolted rail - Ventura-Oxnard	Bond 108-2	$1,946	
9903	Time Savings Improvements Upgrade grade crossing circuitry and increase superelevation to permit increased operating speeds between the following points: Project B.3: Dayton Tower-LAUPT ($274) Project B.5: Burbank-Dayton Tower ($415) Project B.6: Santa Susana (Simi Valley)-Burbank ($36)	Bond 108-2	$725	*

1991 INTERCITY RAIL PROGRAM

Section B

Los Angeles - Santa Barbara Corridor

San Diegan Route

Project No.		Funding Source	Escalated Cost (000)	
	FY 1993-94 (continued)			
9035	Capacity Improvements Project A.3.b: Construct double track - Northridge-Raymer	Bond 108-2	$5,809	*
9904	Construct New Siding at East Simi Valley	Bond 108-2	$830	*
9906	Improvements at New Simi Valley Station	Bond 108-2	$800	*
6025	Track Improvements Project B.19: Replace bolted rail - Santa Barbara-Ventura County Line	Bond 116	$3,905	
	FY 1994-95			
9907	Time Savings Improvements Upgrade grade crossing circuitry and increase superelevation to permit increased operating speeds between the following points: Project B.8: Oxnard-Santa Susana ($141) Project B.9: Ventura-Oxnard ($82)	Bond 108-2	$223	*
9908	Track Improvements	Bond 108-2	$762	*
	Construct second track - Northridge to Portal of Tunnel 28 ($9500)	Bond 108-3	$8,738	*
9909	Tunnel Improvements Upgrade speeds in Tunnels 26, 27 and 28	Bond 108-3	$3,375	*
6021	Track Improvements Project B.14: Time saving projects - Santa Barbara-Ventura County Line	Bond 116	$1,099	
	FY 1995-96			
6020	Goleta Extension Project B.11: Goleta storage and service facility ($397) Project B.12: Goleta station ($2023) Project B.15: Goleta Terminal Track ($1515) Project B.16: Install CWR - Goleta-Santa Barbara ($2450) Project B.17: Time saving projects - Goleta-Santa Barbara ($707)	Bond 116	$7,092	

1991 INTERCITY RAIL PROGRAM

Section C

Los Angeles-Fresno-Bay Area/Sacramento Corridor

San Joaquin Route

Project No.		Funding Source	Escalated Cost (000)
	FY 1990-91		
8004	Grade Crossing Signal Circuit Improvements Between Stockton and Bakersfield	TCI-TP&D	$941
8005	Bakersfield Station Relocation Supplemental funding to construct new Amtrak station with improved parking, separate station tracks	TCI-TP&D	$2,000
8006	Feasibility Study of Repairs to Corcoran Station	TCI-TP&D	$20
8007	Renovation of Hanford Station Continue intermodal facility project	TCI-TP&D	$154
8008	Study of Proposed Stockton Intermodal Station Site location study *Also see Project No. 8024*	TCI-TP&D	$172
9006	Station Platform Improvements Construct 8 inch above-the-rail platforms at Riverbank, Merced, Madera, Fresno, Hanford, Corcoran and Wasco	Bond 108-1	$1,572
9008	Construct Track Connection at Stockton Between ATSF and SP to implement Stockton-Sacramento San Joaquin service *Also see Project No. 6006*	Bond 108-1	$838
	FY 1991-92		
8009	Provide Checked Baggage Service Includes station baggage handling equipment and facilities	TCI-TP&D	$315
8010	Renovation of Hanford Station Complete intermodal facility project	TCI-TP&D	$225
8011	Stations: Lodi and Manteca Feasibility studies and alternatives analysis; Lodi project is based on Sacramento extension; Manteca project is based upon reroute of San Joaquin service to Southern Pacific Line between Fresno and Stockton	TCI-TP&D	$133

1991 INTERCITY RAIL PROGRAM

Section C

Los Angeles-Fresno-Bay Area/Sacramento Corridor

San Joaquin Route

Project No.		Funding Source	Escalated Cost (000)
	FY 1991-92 (continued)		
8012	Right-of-Way Acquistion for Fresno Railroad Station Includes environmental assessment; Project is based upon reroute of San Joaquin service to Southern Pacific Line between Fresno and Stockton	TCI-TP&D	$1,400
8024	Study of Proposed Stockton Intermodal Station Environmental impact study, master site planning, and preliminary engineering *Also see Project No. 8008*	TCI-TP&D	$578
8028	Track Connection at Fresno Preliminary engineering study on switch and rail connection between Santa Fe and Southern Pacific lines at Fresno/Calwa; Project is based upon reroute of San Joaquin service to Southern Pacific Line between Fresno and Stockton	TCI-TP&D	$204
8030	Turlock Transportation Center Feasibility study and environmental assessment; Project is based upon reroute of San Joaquin service to Southern Pacific Line between Fresno and Stockton	TCI-TP&D	$30
9005	Reconfiguration of Empire Siding Includes associated trackage *Also see Project No. 8038*	Bond 108-1	$943
9007	Upgrade Track between Martinez and Port Chicago Track and signal improvements to increase speed limit from 40 to 79 miles per hour	Bond 108-1	$734
6006	Construct Track Connection at Stockton Between ATSF and SP to implement Stockton-Sacramento San Joaquin service *Also see Project Nos. 6022 and 9008*	Bond 116	$2,239
6022	Implement Direct Sacramento Service Portion of Project A2, AB971 Study - Includes interim station at Stockton, new stations serving South Sacramento area and Lodi, signalling and trackwork *Also see Project No. 6006*	Bond 116	$10,039

1991 INTERCITY RAIL PROGRAM

Section C

Los Angeles-Fresno-Bay Area/Sacramento Corridor

San Joaquin Route

Project No.		Funding Source	Escalated Cost (000)
	FY 1992-93		
8038	Reconfiguration of Empire Siding Includes associated trackage *Also see Project No. 9005*	TCI-TP&D	$2,000
8039	Station Improvements - Antioch Provide platform extensions, signage, lighting, and storage facility for wheelchair lift	TCI-TP&D	$150
8040	Station Improvements - Riverbank Interim improvements to include station lighting, and upgrade facility to meet handicapped accessibility regulations	TCI-TP&D	$200
8041	Station Improvements - Merced Interim improvements to include station lighting, and upgrade facility to meet handicapped accessibility regulations	TCI-TP&D	$200
8042	Station Improvements - Fresno Interim improvements to include station lighting, and upgrade facility to meet handicapped accessibility regulations	TCI-TP&D	$200
8043	Station Improvements - Hanford Expanded parking, landscaping, signage and lighting	TCI-TP&D	$500
8044	Station Improvements - Corcoran Expanded parking, signage and lighting	TCI-TP&D	$115
8045	Station Improvements - Wasco Improvements include fencing, vandal resistant lighting and track work	TCI-TP&D	$300
8046	Station Improvements - Bakersfield Improve access, parking and passenger amenities	TCI-TP&D	$2,000
6007	New Stockton Rail-Multimodal Station New facility at Stockton and other station improvements to be determined	Bond 116	$8,002
6008	Implement Direct Los Angeles Service Portion of Project A1 - Provide station facilities at Mojave, Saugus, Lancaster and Tehachapi	Bond 116	$1,953

1991 INTERCITY RAIL PROGRAM

Section C

Los Angeles-Fresno-Bay Area/Sacramento Corridor

San Joaquin Route

Project No.		Funding Source	Escalated Cost (000)
	FY 1992-93 (continued)		
6009	Preliminary Engineering Study - Grapevine Alignment Project A(E1)(a) - For high-speed route between Bakersfield and Los Angeles through Tehachapi Mountains	Bond 116	$5,000
	FY 1993-94		
6011	Reroute Service to SP - Fresno to Stockton Project A3 - Includes track, signal and station improvements and new track connection at Calwa in Fresno	Bond 116	$75,368
	FY 1994-95		
6012	Track and Signal Improvements Portions of Project B3: Curve realignments at Laton and Hanford; Portions of Project C2: Continuous Welded Rail (CWR) between Martinez and Stockton	Bond 116	$32,806
	FY 1995-96		
9018	Speed, Safety, and Comfort Projects Portion of Project B3: Bakersfield to Fresno (Santa Fe) - grade crossing and fencing improvements, and station improvements at Bakersfield, Wasco, Corcoran and Hanford; Portion of Project C1: Stockton to Sacramento (Southern Pacific) - grade crossing and fencing improvements	Bond 108-1	$30,413
9024	Speed, Safety, and Comfort Projects Portion of Project B2: Fresno to Stockton (SP)- grade crossing and fencing improvements; Portion of Project C2: Stockton to Port Chicago (Santa Fe) - CTC and curve realignment	Bond 108-2	$30,546
9040	Cab Signals/Automatic Train Control	Bond 108-3	$31,207
6026	Cab Signals/Automatic Train Control	Bond 116	$9,593
7003	Cab Signals/Automatic Train Control Project B1 and portions of Projects B2, B3, C1 and C2: Cab signal retrofit (to be applied to 20 Amtrak and 150 Southern Pacific and Santa Fe freight locomotives) and installation of cab signals and Automatic Train Control	Unfunded	$19,495

1991 INTERCITY RAIL PROGRAM

Section D

Placer County-Sacramento-Oakland-San Jose Corridor

Capitol Corridor

Project No.		Funding Source	Escalated Cost (000)
	FY 1990-91		
8001	Purchase & Rehabilitation of SP Suisun Station (Amtrak's Suisun-Fairfield Station) *Also see Project 8003*	TCI-TP&D	$500
	FY 1991-92		
8002	Station Improvements at Davis Station Includes bus terminals, bike storage, expanded parking, improved lighting and property acquisition	TCI-TP&D	$63
8003	Suisun Station Pedestrian Mall Acquisition of right-of-way and construction of expanded and improved driveway, street, and pedestrian access to/from station *Also see Project 8001*	TCI-TP&D	$750
8027	Harbor Boulevard Grade Separation Final engineering, designs, plans, specificiations and construction for grade separation on Harbor Blvd. in City of West Sacramento	TCI-TP&D	$300
9009	New Amtrak Oakland Station at Jack London Square Construct new station to replace SP's station at 16th & Wood Streets condemned due to structural damage from 1989 earthquake	Bond 108-1	$6,602
6003	Implement Three Daily Round Trip Service Track (including CWR) and signal improvements between Santa Clara and Oakland; new stations and existing facility upgrades; wheelchair lifts and enclosures; service facility at Roseville; and cars and locomotives to implement Stage 1, Scenario II-B	Bond 116	$42,105

1991 INTERCITY RAIL PROGRAM

Section D

Placer County-Sacramento-Oakland-San Jose Corridor

Capitol Corridor

Project No.		Funding Source	Escalated Cost (000)
	FY 1992-93		
8049	Station Improvements - San Jose/Cahill Street Prepare environmental studies, plans, specifications, and estimates for a 400 space parking structure for intercity passengers	TCI-TP&D	$500
8050	Station Improvements - Richmond Improvements include signage, lighting, and shelters on platform	TCI-TP&D	$115
8051	Station Improvements - Sacramento Interior station modifications: Remove temporary walls and enlarge baggage room; Exterior: Improve parking, lighting, signage, and repair platforms and sheds	TCI-TP&D	$750
8052	Station Improvements - Roseville Enlarge parking lot capacity and increase waiting room size	TCI-TP&D	$300
	FY 1993-94		
6004	Increase Service to Six Daily Round Trips Station, track (including CWR) and signal improvements between San Jose and Placer County, and cars and locomotives to implement Stage 2, Scenario II-B	Bond 116	$29,858

1991 INTERCITY RAIL PROGRAM

Section D

Placer County-Sacramento-Oakland-San Jose Corridor

Capitol Corridor

Project No.		Funding Source	Escalated Cost (000)
	FY 1995-96		
9022	Increase Service to Ten Daily Round Trips Implement Stage 3, Scenario II-B between Benecia and West Sacramento - Install CWR on 16.8 track miles to increase speeds from 70 to 79 mph	Bond 108-2	$8,200
9036	Increase Service to Ten Daily Round Trips Implement Stage 3, Scenario II-B between Benecia and West Sacramento - Install CWR on 15.6 track miles to increase speeds from 70 to 79 mph	Bond 108-3	$7,571
6005	Increase Service to Ten Daily Round Trips Implement Stage 3, Scenario II-B between San Jose and Placer County - Station, track (including CWR) and signal improvements; structural upgrade of Yolo Causeway; cars and locomotives	Bond 116	$13,037
7002	Increase Service to Ten Daily Round Trips Implement Stage 3, Scenario II-B between San Jose and Placer County - Station, track (including CWR) and signal improvements; structural upgrade of Yolo Causeway; cars and locomotives	Unfunded	$44,121

1991 INTERCITY RAIL PROGRAM

Section E

San Francisco-Santa Rosa-Eureka Corridor

Project No.		Funding Source	Escalated Cost (000)
	FY 1991-92		
9010	Study to Determine Feasibility of Service	Bond 108-1	$210
	FY 1992-93		
6001	Capital Improvements to be Determined	Bond 116	$9,765
	FY 1994-95		
9017	Capital Improvements to be Determined	Bond 108-1	$1,262
9041	Capital Improvements to be Determined	Bond 108-2	$1,893
9023	Capital Improvements to be Determined	Bond 108-3	$3,155

1991 INTERCITY RAIL PROGRAM

Section F

Other Capital Projects

Project No.		Funding Source	Escalated Cost (000)
	Not Located on Corridors with State Supported 403(b) Train Service		
	FY 1990-91		
8013	Construct Barstow Intermodal Station Acquire property and renovate Amtrak station and Harvey House as an intermodal facility; (Serves two Amtrak long distance routes from Los Angeles to Chicago via Albuquerque-Kansas City [Southwest Chief] and Las Vegas-Salt Lake City-Denver [Desert Wind])	TCI-TP&D	$796
8014	New Amtrak Station in Ontario Site acquistition, design and construction. (Serves Amtrak's Los Angeles-New Orleans Sunset Route [Sunset Limited])	TCI-TP&D	$340
8015	Intermodal Facility at Pasadena Station Acquire existing Amtrak Station and construct multimodal transportation center; (Serves Amtrak's long distance route to Chicago via Albuquerque and Kansas City [Southwest Chief])	TCI-TP&D	$600

1991 INTERCITY RAIL PROGRAM

Section G

Rolling Stock

Includes Maintenance Facilities

Project No.		Funding Source	Escalated Cost (000)
	FY 1990-91		
9012	San Jose Maintenance Facility - Lick Site (Pullman Way) Final design and right-of-way acquisition - Intercity share Facility will also serve Peninsula Commute Service	Bond 108-1	$1,572
	FY 1991-92		
9014	Acquire Cars and Locomotives	Bond 108-1	$53,995
6002	Acquire Cars Intercity portion of $100 million equipment fund	Bond 116	$21,924
	FY 1992-93		
8053	San Jose Maintenance Facility - Lick Site (Pullman Way)	TCI-TP&D	$8,718
9013	San Jose Maintenance Facility - Lick Site (Pullman Way) Intercity share - Construct Facility Facility will also serve Peninsula Commute Service	Bond 108-1	$20,280
9019	Acquire Cars and Locomotives	Bond 108-2	$68,672
	FY 1993-94		
9028	Los Angeles Area Maintenance Facility Upgrade existing or future facility to serve expanded Intercity and Commute Rail services	Bond 108-2	$12,040
	FY 1994-95		
9033	Acquire Cars and Locomotives	Bond 108-3	$68,626
7001	Acquire Cars and Locomotives	Unfunded	$66,873

THE SAN DIEGANS

Los Angeles-San Diego State Rail Corridor Study (LOSSAN I)

The LOSSAN I report was submitted to the Legislature in June 1987, by the Los Angeles-San Diego State Rail Corridor Study Group (pursuant to SB 1095, Chapter 1313, Statutes of 1985). It represented the first time that all parties with an interest in the corridor, including the Santa Fe Railway and Amtrak, worked together and reached a consensus on a program to develop and improve the service.

The report outlined a $246 million capital improvement program which would reduce running times by up to 24 minutes; permit the operation of up to ten daily round trips between San Diego and Los Angeles; improve reliability; and permit the introduction of commuter service between Orange County and Los Angeles and between Oceanside and San Diego. It also recommended that high priority program elements should be implemented immediately using a combination of State, Federal and local funding sources.

Los Angeles-San Diego Rail Corridor Agency

In early 1989 the agencies listed below signed a Joint Powers Agency agreement to create the Los Angeles-San Diego Rail Corridor Agency (RCA). This agency is responsible for coordinating projects to implement the recommendations of the LOSSAN I report and undertaking related efforts to improve the corridor services and facilities. Proposition 116 designates the RCA as the recipient of all capital funding from this source for the Los Angeles-San Diego rail corridor. The RCA also coordinates subcorridor commuter rail services with corridor intercity rail services. It serves as an ongoing vehicle to coordinate and focus the efforts of all interested parties to improve the *San Diegan* route. Voting members are: Los Angeles County Transportation Commission (LACTC), Orange County Transportation Authority (OCTA), North San Diego County Transit Development Board (NSDCTDB), Metropolitan Transit Development Board (MTDB) and Caltrans. Nonvoting members are: Southern California Association of Governments (SCAG) and San Diego Association of Governments (SANDAG). The RCA has a Technical Advisory Committee which meets monthly, and is comprised of representatives of the member agencies, Amtrak, the Santa Fe Railway and cities along the corridor. Caltrans has assumed the Agency's administrative functions, as requested by the RCA Board in June 1991.

Los Angeles-Santa Barbara Rail Corridor Study (LOSSAN II)

In August 1988, the Legislature passed SB 2446 (Chapter 1228, Statutes of 1988), creating the Southern California Regional Intercity State Rail Corridor Study Group (LOSSAN II). The Study Group's report, released in June 1989, recommended a program of capital improvements costing $84.9 million, including acquisition of two sets of train equipment, installation of centralized train control, construction

of new stations and station improvements, double tracking or other track improvements on the line between Burbank Junction and Northridge, rail replacement and other track and siding upgrades. The Study Group recommended service be extended to a new station at Goleta, dependent upon local support for this extension. This station would also serve the University of California-Santa Barbara campus at Goleta. In addition, the report makes institutional and funding recommendations to facilitate the improvement of rail service in this corridor.

Los Angeles Union Station Access and Improvement Study

Caltrans and LACTC funded Phase I of the Los Angeles Union Passenger Terminal Access and On-Site Improvement Study[2]. This study's final report, issued in March 1991, reviews existing rail facilities serving Los Angeles Union Station. The purpose of the study was to analyze existing track capacity at Union Station and its approaching routes, and make recommendations as to the extent and need for improvements to accommodate increased passenger rail traffic. The study defines what intercity and commuter services, separately and together, require in additional facilities and operational improvements. The goal of the study is to plan routes into Union Station which will give passengers the most direct and speedy access possible.

In addition, the study reviews existing conditions and operational requirements, and makes recommendations on trackage and platform design at Union Station. It also reviews alternative sites for a central Los Angeles Station. Both existing and proposed equipment maintenance and car storage facilities are examined. The study concludes with a list of required fixed facilities needed for current and future intercity service, as well as commuter service, at three service levels (start-up, intermediate and high). Two additional study phases will follow to cover pedestrian access and station amenities (Phase 2), as well as parking and vehicular access and circulation (Phase 3).

Stations

Station capital improvement programs on the *San Diegan* route are summarized below.

Anaheim: This stop opened on October 30, 1983, and was established under the Caltrans intermodal facilities program. The station is fully staffed.

Burbank Airport: This stop opened on June 1, 1990, using the existing facility (originally constructed for the Los Angeles-Oxnard commute service in 1982), near the Burbank Airport. The City secured 73 parking spaces to serve the station, arranged for shuttle service between the station and the Airport, installed

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2 Los Angeles Union Pacific Passenger Terminal Access and On-Site Improvement Study, Final Report, March 20, 1991, Los Angeles County Transportation Commission and California Department of Transportation, prepared by Seely Stevenson Value & Knecht and the Cordoba Corporation.

San Fernando Valley, serving the Santa Barbara extension of the *San Diegans*, as well as the *San Diegan* and *San Joaquin* connecting buses. Also, Caltrans and Amtrak are coordinating this effort with the City of Los Angeles and LACTC so that this station can accommodate commuter rail service planned to start in late 1992.

Ventura: The City of San Buenaventura plans to construct a Ventura Amtrak station to serve the *San Diegan* route, with completion planned for late 1991. The project is being funded by $500,000 in local funds, plus $250,000 from Caltrans intermodal facilities program.

Capital Improvement Program

In June 1987 the Los Angeles-San Diego State Rail Corridor Study Group issued a report (LOSSAN I Study) containing a recommended program for the incremental upgrading of the existing rail corridor. One of the high priority projects identified was to upgrade over 90 miles of main line track between Fullerton and San Diego, replacing the existing 45-year-old bolted rail with new, continuously welded rail. This four phase rail replacement project will result in increased safety, improved reliability and greater efficiency for the *San Diegan* service. Phase I of the rail replacement program (Fullerton-Santa Ana) is now complete. Phases II and III of the program were included in the Capital Improvement Programs for Fiscal Years 1988/89 and 1989/90 respectively, as shown below, and are complete. Phase IV was funded from the TCI Program and work is currently in progress.

Fiscal Year 1988/89 Capital Improvement Program

The Budget Act of 1988 transferred a total of $10 million in Petroleum Violation Escrow Account (PVEA) funds to the TP&D Account for additional improvements in the San Diego-Los Angeles-Santa Barbara corridor. A provision in the budget language limited State funding for any given project to fifty percent of the total cost. This limitation made the expenditure of the budgeted funds dependent on the commitment of local and private agencies to provide the fifty percent match.

The following list shows the capital improvement program for the 1988/89 fiscal year, and the funding source and status of each project.

Funding Source		Amount	Status
RAIL REPLACEMENT PHASE II (SANTA ANA TO SAN JUAN CAPISTRANO)			
Caltrans		$4,400,000	Work Completed
Santa Fe		$1,100,000	
Amtrak		$1,100,000	
LACTC		$1,100,000	
SANDAG		$1,100,000	
	PROJECT TOTAL	$8,800,000	
OCEANSIDE STATION AND TRACK IMPROVEMENTS			
Caltrans		$1,000,000	Engineering 90%
NSDCTDB		$1,000,000	Complete
	PROJECT TOTAL	$2,000,000	
CONSTRUCT DEL MAR SIDING			
Caltrans		$ 655,000	Engineering 90%
NSDCTDB		$ 655,000	Complete
	PROJECT TOTAL	$1,310,000	
SORRENTO SIDING IMPROVEMENTS			
Caltrans		$ 420,000	Engineering 90%
NSDCTDB		$ 420,000	Complete
	PROJECT TOTAL	$ 840,000	
LAUPT ACCESS AND IMPROVEMENT STUDY			
Caltrans		$ 200,000	Study Completed
Santa Fe		$ 100,000	
LACTC		$ 100,000	
	PROJECT TOTAL	$ 400,000	
8 GRADE CROSSING IMPROVEMENTS IN LOS ANGELES		COUNTY	
Caltrans		$ 600,000	Contract to be Executed
LACTC		$ 600,000	Shortly
	PROJECT TOTAL	$1,200,000	
FULLERTON STATION IMPROVEMENTS			
Caltrans		$ 500,000	Contract Executed
City of Fullerton		$ 500,000	
	PROJECT TOTAL	$1,000,000	
IRVINE STATION DOUBLE TRACK			
Caltrans		$1,400,000	Design Work in Progress
City of Irvine		$1,400,000	
	PROJECT TOTAL	$2,800,000	
DOUBLE TRACK INCREMENT FOR PETERS CANYON BRIDGE			
Caltrans		$ 325,000	Bridge in Service
Santa Fe		$ 325,000	
	PROJECT TOTAL	$ 650,000	
BRIDGE AND CURVES AT SAN JUAN CAPISTRANO			
Caltrans		$ 500,000	Contract in Negotiation
Santa Fe		$ 500,000	
	PROJECT TOTAL	$1,000,000	
	TOTAL	**$20,000,000**	

Fiscal Year 1989/90 Capital Improvement Program

The Budget Act of 1989 provided $10 million in TP&D Account funds for further improvements to the San Diego-Los Angeles-Santa Barbara corridor. As in the prior year's program, State funds were limited to fifty percent of the total project cost. Following is the capital improvement program for the 1989-90 fiscal year, including the funding sources and status of each project.

Funding Source		Amount	Status
RAIL REPLACEMENT PHASE III (SAN JUAN CAPISTRANO TO SORRENTO)			
Caltrans		$7,500,000	Work Completed
Santa Fe		$1,500,000	
Amtrak		$1,500,000	
SANDAG		$1,500,000	
	PROJECT TOTAL	$12,000,000	
UPGRADE SIMI VALLEY SIDING			
Caltrans		$1,000,000	Design Completed
City of Simi Valley		$2,500,000	Construction to
	PROJECT TOTAL	$3,500,000	Commence Shortly
LOCOMOTIVE FOR SECOND SANTA BARBARA SERVICE			
LACTC		$1,500,000	Contract Executed
	PROJECT TOTAL	$1,500,000	
CENTRALIZED TRAFFIC CONTROL (PORTION) BURBANK JUNCTION-SANTA BARBARA (GOLETA)			
Caltrans		$1,500,000	Contract in Negotiation
Non-State Match		$1,500,000	
	PROJECT TOTAL	$3,000,000	
	TOTAL	**$20,000,000**	

Transit Capital Improvement Projects

Figure 27 lists the TCI projects funded for the *San Diegan* route for the 1989/90 fiscal year. The TCI projects for Fiscal Years 1990/91 and 1991/92 are included in the IRP listing above in this Chapter.

San Diegan Route TCI Projects for 1989/90 Fiscal Year

Applicant	Summary Project Description	Amount Funded (TP&D)	Authorization
Fullerton	Construct three miles of track through Fullerton station	$2,400,000	CTC authorized Caltrans to allocate (October 19, 1989)
OCTC	Double track line near Irvine, corridor appraisal	$710,000	CTC authorized Caltrans to allocate (October 24, 1989)
OCTC	Purchase of rail for replacement between San Juan Capistrano and Sorrento	$2,400,000	CTC authorized Caltrans to allocate (October 24, 1989)
LACTC	Los Angeles-Van Nuys (GEMCO) track improvements	$2,472,000	CTC authorized Caltrans to allocate (August 24, 1989)
	Intermodal Projects		
Burbank	Feasibility study and alternatives analysis for proposed station at Burbank	$19,000	CTC authorized Caltrans to allocate (December 14, 1989)
Irvine	Supplemental funds for station construction	$200,000	CTC authorized Caltrans to allocate (August 24, 1989)
Anaheim	Design and construction of passenger overpass connecting station platform with adjacent commercial complexes and parking	$285,000	CTC authorized Caltrans to allocate (December 14, 1989)
LACTC	Feasibility and engineering studies for station improvements at LAUPT	$200,000	CTC authorized Caltrans to allocate (December 14, 1989)
Fullerton	Extend and raise existing platforms, acquire property, build new platform and connect to pedestrian overcrossing	$1,200,000	CTC authorized Caltrans to allocate (August 24, 1989)
Oceanside	Acquire property and expand parking lot	$1,000,000	CTC authorized Caltrans to allocate (September 20, 1989)
Simi Valley	Construction of additional parking capacity station as intermodal facility	$150,000	CTC authorized Caltrans to allocate (August 24, 1989)

TOTAL $11,036,000

Figure 27. San Diegan Route TCI Projects for FY 1989/90

Third Train Equipment

In order to provide equipment for the third *San Joaquin* train, which began operation on December 17, 1989, the Legislature provided Caltrans with $8.722 million in special funding from the Budget Act of 1988 ($1.22 million); AB 1649 ($1.0 million) and AB 980 ($6.5 million) (Chapters 1428 and 1530 of the Statutes of 1988). Amtrak and Caltrans entered into an agreement for that amount in June 1989, for Caltrans to purchase two new locomotives (along with the provision of two interim locomotives until the new equipment is acquired) from Amtrak's next order of locomotives. In December 1990, Amtrak awarded a contract for 52 new diesel locomotives to General Electric. Delivery of Caltrans two locomotives is expected in the first quarter of 1992.

The agreement also provided for Caltrans to pay the cost of six Bombardier coaches and three food service cars for a three year period, along with options to extend the three year period or to purchase the nine cars. Bombardier is a Canadian railcar builder that recently supplied Amtrak with 104 new single-level passenger cars. Amtrak converted the equipment on the existing two *San Joaquin* trains from bi-level to Bombardier equipment to allow for a uniform type of equipment on the entire route to facilitate maintenance. The new Bombardier cars use the body shell produced for commuter rail cars used in the Northeast, while interior fittings are similar to the Amfleet equipment currently being used on the *San Diegans.* Tray meal service is provided in all Bombardier food service cars.

To maintain handicapped accessibility to the *San Joaquins,* wheelchair lifts were provided at each station on the route, except Antioch, as part of the overall equipment agreement. The stop at Antioch has a station facility under construction. A wheelchair lift will be installed upon project completion. Enclosures for these lifts at unstaffed stations were constructed under the minor capital improvement program. Future *San Joaquin* train route extensions will also provide wheelchair accessibility.

Transit Capital Improvement Projects

Figure 28 lists the TCI projects funded for the *San Joaquin* route for the 1989/90 fiscal year. Intermodal projects on Amtrak basic system routes are shown below the *San Joaquin* intermodal projects on this table. The TCI projects for Fiscal Years 1990/91 and 1991/92 are included in the IRP listing above in this Chapter.

San Joaquin/Other Intermodal TCI Projects for 1989/90 Fiscal Year

Applicant	Summary Project Description	Amount Funded (TP&D)	Authorization
	San Joaquin Route		
Antioch	Construct intermodal station to serve Amtrak and Delta Transit	$110,000	CTC authorized Caltrans to allocate (August 24, 1989)
Oakland	Relocate and rebuild station as intermodal facility at Jack London Square	$3,164,000	On CTC list of approved projects
	Total	**$3,274,000**	
	Other Intermodal Projects		
Barstow	Acquire right-of-way for intermodal station	$886,632	CTC authorized Caltrans to allocate (August 24, 1989)
Davis	Complete landscaping, paving, lighting and building construction to extend existing platform	$119,200	CTC authorized Caltrans to allocate (August 24, 1989)
Roseville	Land acquisition, parking, lighting and building completion	$96,000	On CTC list of approved projects
	Total	**$1,101,832**	

Figure 28. San Joaquin /Other Intermodal TCI Projects for FY 1989/90

DECREPIT STATIONS AND UPGRADED PARKING FACILITIES

AB 1582 (Chapter 740, Statutes of 1989) added Section 14036.2 to the Government Code, reading:

> *14036.2. The department shall identify in the rail passenger development plan prepared pursuant to Section 14036, the three most decrepit intercity rail passenger stations in the state used by trains operated by the National Railroad Passenger Corporation (Amtrak). The department shall also identify those rail passenger stations which require upgraded parking facilities to encourage automobile drivers to utilize available rail passenger service.*

Webster's New World Dictionary, Third College Edition Copyright 1988, defines decrepit as "broken down or worn out by old age or long use." Following are three intercity rail passenger stations identified by Caltrans which most closely meet this definition:

- Stockton Amtrak Station - 735 S. San Joaquin Street, Stockton, CA.

  Caltrans and Amtrak, in conjunction with the City of Stockton and San Joaquin County, have identified potential interim station sites and are evaluating the feasibility of relocating the station. A new interim station site at Stockton to be used in conjunction with the new track connection between the SP and SF would greatly facilitate extension of service to Sacramento.

- Oakland Amtrak Station - 1701 Wood Street, Oakland, CA

  Caltrans and Amtrak, in conjunction with the Port of Oakland, are working to relocate and construct a new Amtrak station at Jack London Square Station in Oakland to replace the Wood Street Station condemned due to structural damage from the October 1989 earthquake.

- Barstow Amtrak Station - North 1st Street, Barstow, CA

  The City of Barstow has received State funding to renovate the abandoned Harvey House and station.

In addition, the following intercity rail passenger stations have deficient parking facilities: Sacramento, Riverbank, Merced, Fresno, Santa Barbara, Simi Valley, San Jose, Berkeley, Martinez, Bakersfield and Hanford. Caltrans will continue to work with local agencies to identify projects to alleviate these deficient parking facilities.

INSPECTION OF INTERMODAL STATIONS

AB 3736 (Chapter 1490 of the Statutes of 1990) added Section 99317.8 to the Public Utilities Code as follows:

> *99317.8 (a) A public agency which has received an allocation for funding of an intermodal transfer station pursuant to paragraph (3) of subdivision (a) of Section 99317 shall provide for maintaining the station and its appurtenances, including, but not limited to, restroom facilities, in good condition and repair, and in accordance with high standards of cleanliness. As part of its duties in monitoring state-funded rail and bus services, the department shall, at least annually, conduct an unannounced inspection of each facility and make recommendations, if any, to the operating agency. Results of the department's inspections shall be included in the rail passenger development plan required pursuant to section 14036 of the Government Code. If appropriate remedial action is not taken, the department may recommend to the commission that future applications for transit capital funding be denied.*
>
> *(b) The Legislature finds and declares that regular inspections of intermodal stations are necessary to protect the state's capital investments in these essential transportation facilities and to avoid the problems resulting from deferred maintenance.*

To implement this Section, Caltrans is developing a program which will identify all intermodal stations funded in whole or in part by the State since the beginning of the intermodal program. Caltrans will completely examine the interior and exterior condition of all buildings and their parking areas to determine their current condition. Caltrans will notify the owners of the facilities of the results of its inspections and include inspection findings in the next Rail Passenger Development Plan.

FEDERAL RAIL-HIGHWAY GRADE CROSSING PROGRAM (SECTION 130)

AB 1582 (Chapter 740 of the Statutes of 1989) added Section 14036.4 {originally 14039 but renumbered in AB 3736 (1990)} to the Government Code, reading:

> *14036.4 The department shall report in the rail passenger development plan prepared pursuant to Section 14036 on the amount of funds available to the state under the federal rail-highway crossing program (23 U.S.C. Sec. 130), including the cash balance, funds encumbered during the last year, and amounts anticipated to be received during the subsequent year. The plan shall also discuss any issues relating to the department's ability to spend these federal funds on a timely basis.*

The Section 130 program currently provides about $10 million a year in Federal highway funds to pay for 90 percent of improvements (including separations) at eligible grade crossings. Such crossings must be on the California Public Utilities Commission's "Recommended List of Public Crossings in California for Improved Crossing Protection With Federal Funding." Improvements include the installation of flashers, gates, cantilevered flashing lights, surface improvements (such as rubberized crossings), separation structures and relocation of roadways to eliminate existing crossings. The other 10 percent is paid by the local entity responsible for the road or highway involved, generally a city or a county. On State highways, the State would pay the 10 percent non-Federal share.

Prior to the 1990 Federal fiscal year, 40 percent of the funds available for the Section 130 rail-highway crossings program were applied to Hazard Elimination Safety (HES) projects, such as the improvement of guardrail installations, pavement markings, the elimination of roadside obstacles, curve corrections, channelizations and increasing the effectiveness of traffic control devices. HES projects may or may not directly involve railroad facilities. In Fiscal Year 1990, due to the increased demand for railroad grade crossing projects, all available funds were obligated to such projects. In Fiscal Year 1991, $4 million of Section 130 funds was used for HES projects. If the structure of Federal funding is not changed, it is anticipated that Section 130 funding will remain at about $10 million in Fiscal Year 1992.

In an effort by Caltrans Division of State and Local Project Development to spend the Section 130 funds on a timely basis, the Highway/Railroad Grade Crossing Safety Committee has been formed. The Committee's membership includes representation from Southern Pacific Transportation Company, Union Pacific Railroad, the Atchison, Topeka and Santa Fe Railway, the Federal Highway Administration (FHWA), the California Public Utilities Commission, two representatives from the Joint City/County/State Cooperation Committee, and Caltrans Divisions of State and Local Project Development, Structures, and Rail. The Committee's duties are to streamline the Section 130 process and develop procedures to:

- Prioritize grade crossings projects.
- Ensure timely expenditures of Section 130 funds.

The Division of State and Local Project Development has assigned a program manager the tasks of:

- Monitoring and reporting any unliquidated balance of Section 130 funds.
- Enforcing statewide policies.
- Providing follow-up on project delivery for grade crossing projects.
- Developing a process guide for local agencies entitled, "Railroad Crossings: Procedures for Developing Federal-Aid Railroad-Highway Grade Crossings Improvements on Local Streets and Roads" (issued in January 1991).

The status of funding for the Section 130 Federal rail-highway grade crossings program is as follows:

(Federal Fiscal Years)	Obligations/ Allocations	Balance
Available as of Oct. 1, 1989	---	$13,724,584
FY 89/90 Obligations	$11,494,833	—
Carryover to FY 90/91	---	$2,229,751
FY 90/91 Allocation	# $6,182,716	—
Available as of Oct. 1, 1990	---	$8,412,467
FY 90/91 Obligations through June 30, 1991	$4,309,680	—
Available as of July 1, 1991	---	$4,102,787

Does not include $4 million in Section 130 funds used for HES projects.

Chapter VIII - High Speed Rail

FEASIBILITY STUDY OF HIGH SPEED GROUND TRANSPORTATION FOR CALIFORNIA

Background

With an increased emphasis on transportation alternatives to the automobile in California, there has been a renewed interest in rail services as a means for relieving congestion and providing an energy efficient mode of travel.

Much of this interest in rail passenger service has manifested itself through State legislation. SB 1307 (Chapter 1104, Statutes of 1990) calling for an evaluation of rail technology, services and funding is the latest such legislation. It was preceded by several studies undertaken in California during the past six years which focused on specific rail corridors.

A study of the corridor between Los Angeles and San Diego (LOSSAN) was initiated in 1985 and submitted to the Legislature in 1987, while a study of the Santa Barbara to Los Angeles corridor (LOSSAN II) was undertaken in 1988. A study of the Los Angeles-Fresno-Bay Area/Sacramento corridor was submitted to the Legislature in 1989, and a study of the route between Placer County-Sacramento-Oakland-San Jose was completed in December 1990.

In addition, AB 1839 (1987) and AB 671 (1988) created the California-Nevada Super-Speed Ground Transportation Commission. The Commission is providing the framework for a super speed transportation system that will link Southern California with Las Vegas, Nevada. In July 1990, a consortium headed by the Bechtel Corporation proposed to construct a maglev system in this Southern California-Las Vegas corridor.

In June 1990, California voters passed a series of ballot measures (Propositions 108, 111 and 116), which gave a major impetus to an expanded rail program in the State. Proposition 108 authorized $1 billion in bond funds for rail projects, with an additional $2 billion scheduled for votes in 1992 and 1994. Proposition 116 authorized approximately $1.9 billion in bond funds for specific rail projects. In addition, Proposition 111 provides funding for rail projects through the elements of Flexible Congestion Relief and State-Local Partnership.

While the major rail corridor studies already noted have provided a basis for particular corridor planning and travel improvements, they have not provided for coordinated planning among intercity and commuter rail corridors. SB 1307 provides for such coordination. It requires Caltrans to develop a work plan and contract for a feasibility study for the development of an integrated publicly, privately, or publicly and privately operated high-speed ground transportation system which includes specified intercity and commuter rail corridors.

SB 1307 calls for research of elements in several areas. These elements include surveys of technology, corridor viability, prioritization, environmental and

economic impacts of a high-speed system, institutional and financial considerations. The individual elements are listed below:

Elements

- An examination of existing and new technologies for a high-speed ground transportation system and recommendations for a technology to be employed which would allow rail travel to be competitive with air travel.
- An examination of the adaptability of existing rail corridors to a high-speed ground transportation system and recommendations on the feasibility of expanding or upgrading existing rail corridors or developing a new ground transportation system.
- An examination of which segments of the system should be constructed first, together with recommendations for a construction schedule, including consideration of the scheduling and routing of vehicles to maximize coordination with existing rail systems, light rail, regional rail systems, other mass transit systems, airports and other major transportation hubs.
- The environmental impacts of a high-speed ground transportation system, including the air quality benefits of a corresponding reduction in highway traffic.
- Recommendations for the administrative structure to operate a high-speed ground transportation system, including consideration of the creation of an operating division within Caltrans, an independent State agency, or a public or private corporation and recommendations for an administrative structure which will efficiently and effectively administer the system while protecting the public need for quality service at least cost.
- An economic analysis of a high-speed ground transportation system which includes projections on the number of persons who would use the system, the revenues to be generated, the costs of operating the system and the impact on other modes of transportation, including capital outlay reductions for highways and airports.
- An examination of the alternatives for financing a high-speed ground transportation system, including development of the proposed corridors, consideration of the granting of an exclusive franchise to a private corporation to construct and operate that system; and consideration of the technology options, with separate consideration given to capital outlay and operational costs.

Corridors

SB 1307 lists the rail corridors to be analyzed. These intercity and commuter rail corridors are specified in Sections 164.51 and 164.55 of the Streets and Highways Code and include:

Intercity Rail

- Los Angeles-San Diego
- Santa Barbara-Los Angeles
- Los Angeles-Fresno-San Francisco Bay Area/Sacramento
- Auburn-Sacramento-Oakland-San Jose
- San Francisco-Santa Rosa-Eureka

Commuter Rail

- San Francisco-San Jose
- San Jose-Gilroy
- Gilroy-Monterey
- Stockton-Livermore
- Orange County-Los Angeles
- Riverside-Orange County
- San Bernardino-Los Angeles
- Ventura County-Los Angeles
- Saugus-Los Angeles
- Oceanside-San Diego
- Escondido-Oceanside

Advisory Committee

A fifteen person Work Plan Advisory Committee was appointed by the Director of the Department of Transportation (Caltrans). This Committee advises Caltrans staff on the direction and focus of the work plan, which lays the framework for the feasibility study. Members of the Committee include representatives of:

- Study Groups organized for the:
  - Los Angeles-Fresno-Bay Area/Sacramento High Speed Rail Corridor Study
  - Los Angeles-San Diego Corridor Study
  - Los Angeles-Santa Barbara Corridor Study
  - Auburn-Sacramento-Oakland-San Jose Rail Corridor Study
- The California-Nevada Super Speed Ground Transportation Commission
- The Southern California Association of Governments
- The Metropolitan Transportation Commission (Bay Area)
- The California Transportation Commission
- The Fresno Council of Governments
- A high speed rail expert

The work plan was adopted by the California Transportation Commission in April 1991. It has been sent to the Legislature for approval and budgetary consideration. It is estimated that a feasibility study will take approximately two years to complete and cost about $3 million.

NEW TRANSIT TECHNOLOGY PROGRAM

The new Transit Technology Program is one of four Caltrans programs investigating the use of new technology for the State's transportation system. The other three programs are: Intelligent Vehicle Highway System (IVHS), Air Transportation and Technology Transfer.

The goal of the program, through the application of appropriate new technology to rail, mass transit and guideway systems in California, is to provide for an increase in mobility for all segments of the population, improve and enhance safety, benefit the environment, use energy more efficiently, reduce the use of fossil fuels, provide for cost-effective service and increased benefits relative to costs and facilitate economic growth and development.

Subgoals of the program are to:

- Explore new transit technology options (including high-speed rail) and facilitate their development and implementation:
- Pursue appropriate State-sponsored initiatives and roles in the planning, development, testing and demonstration of new transit technology; and studies that support its possible implementation; and
- Establish a department technology transfer program for transit, including the transfer of knowledge and technology to Caltrans Division of Rail.

Program activities include investigating alternative rail and guideway systems. For example, Caltrans and the Institute of Transportation Studies, University of California, Berkeley, in cooperation with the U.S. Department of Transportation, the Army Corps of Engineers, the Department of Energy and the Environmental Protection Agency, co-sponsored a regional forum on maglev planning and implementation. Held on January 31, 1991, the forum's purpose was to share information and explore issues, from local, regional and statewide perspectives, related to the planning and implementation of maglev and other forms of high speed ground transportation, and discuss federal efforts to facilitate the development of high speed maglev technology in the United States.

HIGH SPEED RAIL CONVENTION

The Eighth International Convention on High Speed Rail met in Anaheim, California, May 5-8, 1991. Panel moderators included persons with expertise in finance, government relations, environmental concerns, economic development, rail technology, safety, superconductivity, urban transit interface, communications and the role of local government.

Caltrans participated in this convention in a number of ways. Division of Rail staff made presentations at the convention and other staff attended sessions and provided information concerning rail activities in California. The Division also displayed an exhibit portraying rail transportation development in California.

THE LOS ANGELES-FRESNO-BAY AREA/SACRAMENTO HIGH-SPEED RAIL CORRIDOR STUDY GROUP

Background

The Los Angeles-Fresno-Bay Area/Sacramento High-Speed Rail Corridor Study Group was created in 1988 by AB 971 (Chapter 197, Statutes of 1988). The study focused upon determining the incremental improvements necessary to increase speeds to the 110-125 miles per hour range and the improvements required to increase speeds to much higher ranges.

$150,000 in State funds were appropriated for the study, which was matched by a like amount of non-State funds. A consultant team (Parsons, Brinkerhoff, Quade & Douglas, Inc. in association with Deutsche Eisenbahn-Consulting Gmbh and Arthur Bauer and Associates) performed the technical study.

Final Report

The Study Group submitted its Final Report to the California State Legislature on May 24, 1990. The Study Group's major conclusions were:

- The more than twenty million people living in the catchment area of the Los Angeles-Fresno-Bay Area/Sacramento corridor, constitute more than two-thirds of the state's population. These Californians require a greatly improved rail passenger service in order to: sustain their level of mobility; support efforts to improve the quality of the natural environment; and support continued economic growth.
- First and foremost, the Study Group finds that state of the art passenger and freight train service are as important to the State of California as highways and safe airways. State Government needs to recognize that it must play a leading role in rail improvement. The state has the responsibility to assure that Californians have railways comparable to those of our major trading partners by whatever state-wide means they are financed.
- A substantial reduction in highway auto pollution in the state depends on having passenger trains with travel times less than by car, and rail freight end-to-end service faster than trucks.
- In order to provide a fully integrated rail system in the California Corridor, service ultimately should be provided to the Valley along the Southern Pacific, Santa Fe, and Union Pacific Rail Lines.
- European experience is relevant to California's needs. French experience proves that modern new trains traveling at speeds in the 150-200 mph range can service and repay debt incurred in their construction. German experience indicates that high-speed trains can operate efficiently on the same tracks as freight trains with proper track construction and maintenance and with stringent operating practices.

The Study Group also developed several major policy recommendations:

- The need to use many existing rail rights of way for substantial parts of the Corridor will require creative cooperative ventures with existing railway companies in California.
- In order to achieve the goals the Legislature has prescribed in AB 971, and which this report advocates, entirely new institutional arrangements are needed to guide the development and financing of the High Speed Corridor.
- The government of the State of California has an absolute responsibility to develop a high-speed rail service in this corridor, supported by a network of local transportation and regional rail passenger services. The high-speed State rail "spine" we have been asked to plan, should be designed and built for train speeds of at least 185 miles per hour, and employ the most sophisticated world class technology in existence.

SOUTHERN CALIFORNIA-LAS VEGAS MAGLEV PROJECT

Background

AB 1839 (Chapter 1259, Statutes of 1987) and AB 671 (Chapter 149, Statutes of 1988) created the California-Nevada Super Speed Ground Transportation Commission (with eight members from each state) and authorized it to award a franchise for private development. The award is subject to approval of a final plan by the Governor and Legislature of both states following an environmental impact report. In addition, this California legislation stipulated that the Commission would result in no public cost to the State of California or any of its political subdivisions.

According to Commission staff, the Commission's plan is to begin a super speed train system that will not only link two major tourism markets but create commuter travel opportunities as well, and lay the groundwork for future expansion linking communities throughout the Pacific Southwest region. As a result, the system would also reduce traffic congestion and pollution.

The bi-state Commission solicited worldwide interest in building the train, but only three North American companies came forward. Two of the firms felt that without public assistance or guarantees, their participation would be "excessively risky." The Commission was formed with the idea of "no financial involvement by the states." In July 1990, the Bechtel Corporation submitted a proposal to the Commission to build a maglev line between Southern California and Las Vegas, Nevada.

The consortium headed by Bechtel will complete the environmental impact report required by law; choose station locations and route; and develop a final plan to construct and operate the $5 billion train privately. All plans must be approved by the Commission and both states' legislatures and governors. Construction is expected to take four or five years. On February 15, 1991, Bechtel

advised the Commission that completion of the project would be delayed by recent world events which have impaired the availability of financing.

Project Team and Overview

The Super Speed Maglev Transport consortium is headed by Bechtel, which will lead the program development, management and financial efforts. Bechtel has signed an agreement with Transrapid International to provide the maglev technology and specific system components. Maglev is the suspension, guidance and propulsion of a vehicle by magnetic forces, with no physical contact between the vehicle and its guideway. Amtrak will provide operations, maintenance and marketing services for the project.

Bechtel will perform "feasibility" studies in several areas, beginning with the "investment-grade" forecast of ridership necessary to assure the requisite capital financing and culminating with the environmental document. Bechtel has said that all stations and routes shown on the proposed route map will be considered in their studies over the next year. Figure 29 is a map of the proposed maglev routes.

The proposal has acknowledged the requirements for equal employment opportunity and affirmative action. Bechtel commits the project organization to developing specific programs, such as minority and woman-owned business enterprises, at the appropriate times.

Routes and Stations

Bechtel proposes routings following public rights-of-way (highways, flood control channels and federal lands). Non-public property is likely to be required only at stations and maintenance and storage yards. The routings allow sustainable speeds of at least 185 MPH (up to 280-300 MPH) and the allowable 10 percent grade means no tunnels will be necessary. The length of route between Las Vegas and Anaheim varies between 264 and 270 miles, depending on choice of route.

About 50 percent of each route is near grade level (a one-meter-high guideway). Roadway underpasses and animal crossings will have an elevated guideway. Bechtel proposes to use shoulders of highways rather than medians.

Las Vegas-Anaheim express running time is proposed at 75-77 minutes with each intermediate stop adding about 5 minutes. Interface with other travel modes is emphasized in the plan.

Ridership and Commuter Service

Bechtel says the project depends upon all of the appropriate right-of-way being made available. This will require assistance from the Commission and the states. They have not estimated the cost of right-of-way but will prepare detailed maps during the environmental assessment.

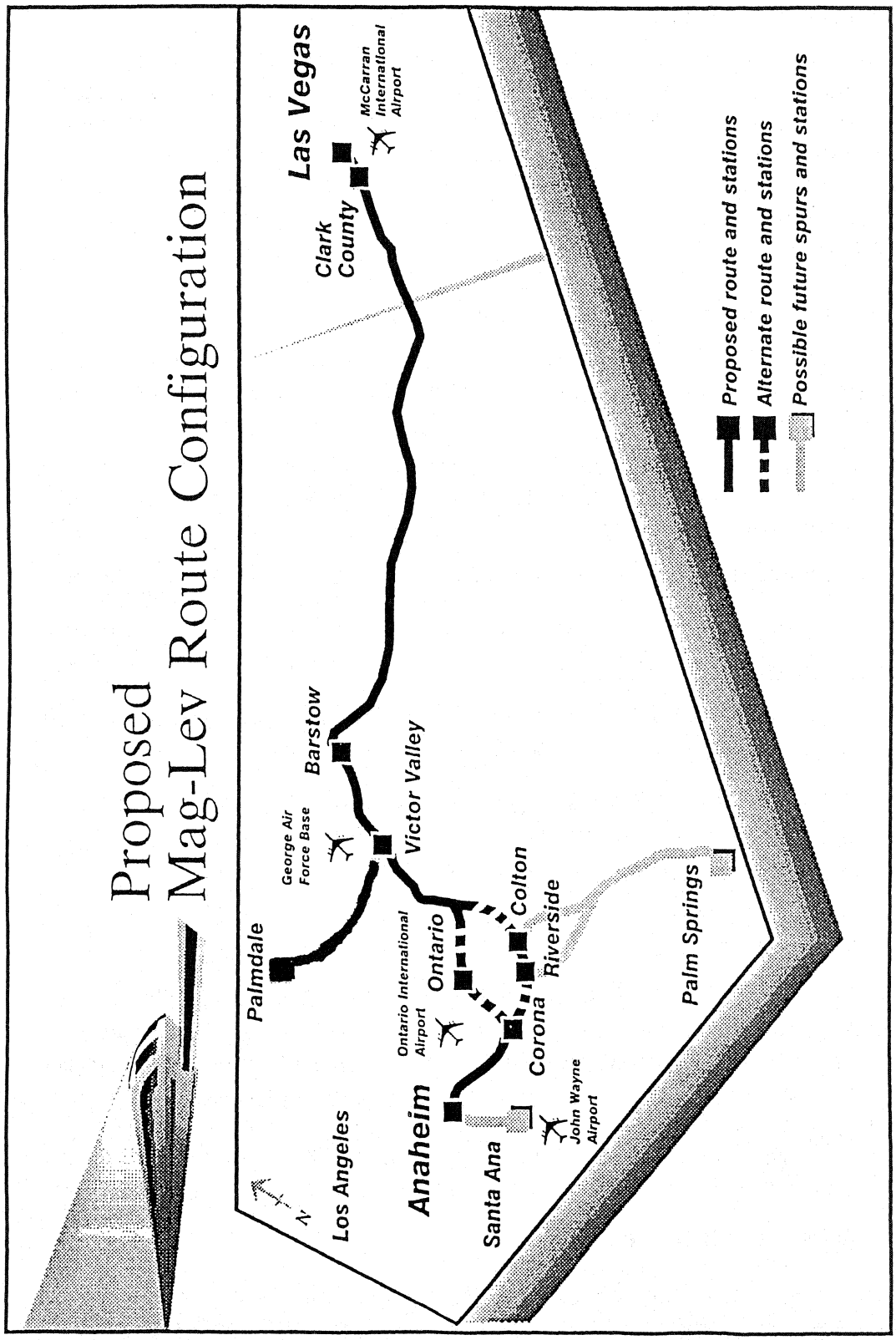


Figure 29. Map of Proposed Maglev Routes

Description of Trains

Transrapid equipment will meet statutory requirements for 180 MPH minimum speed and Commission preferences for trip-time, frequency and on-board amenities and comfort. Each vehicle will have 100 seats in a "business class" configuration of five seats across. There will be four attendants for an 8-car train. Amenities will include stereo and television monitors. At peak times, trains would run every 15 minutes. A completely double-track design is proposed to accommodate commuter-service needs.

Environmental and Community Impacts

Bechtel has discussed an extensive set of environmental and community impacts in the proposal. They have acknowledged air quality and noise issues for each stage of the project.

A visual impact assessment breaks the proposed routes into 18 segments for analysis. Cultural resources along the route are identified, as are current and planned land uses in each community traversed.

All environmental issues will be fully addressed in the environmental impact report.

Cost Estimates and Financing

Bechtel's proposal includes the following conceptual capital cost estimates:

Guideway (double track) and stations	$2.382 billion
Power supply	1.448
Signals and communications	0.174
Maintenance and office facilities	0.054
Design and construction management	0.487
Vehicles	0.565
Total	$5.110 billion

The consortium's objective is to fund the project without guarantees from California or Nevada. Financing is intended to be based primarily on project revenues. Bechtel wants to use tax-exempt financing (allowable under federal law for private high-speed trains). Bonds will be supported by a letter of credit issued by a syndicate of major international banks. Other potential sources of funds include pension plans, supplier loans, leasing arrangements and export credits.

Additional revenue sources mentioned in the proposal include real estate development, redevelopment (tax-increment districts), sale of development rights and impact fees.

LOS ANGELES INTERNATIONAL AIRPORT-PALMDALE CORRIDOR

Advanced Technology Demonstration Project

The Los Angeles County Transportation Commission (LACTC) will issue a Request for Proposal (RFP) in the Summer of 1991 to identify developer teams having technical and financial capabilities to fund, design, supply, test, deliver and, at the LACTC's option, operate and maintain an advanced technology transportation system. The RFP would allow for the deployment of steel wheel, rubber-tired, monorail or magnetic levitation technologies.

The system would operate between Los Angeles International Airport (LAX) and Palmdale Regional Airport, a distance of about 70 miles. The system would also provide passenger service at intermediate stops. The envisioned route would utilize right-of-way of the San Diego Freeway (I-405), the Golden State Freeway (I-5) and the Antelope Valley Freeway (Route 14). Figure 30 is a map of the proposed system.

AB 680 Privatization Proposal

AB 680 (Chapter 107, Statutes of 1989) authorized Caltrans to enter into agreements with private entities or consortia for the construction by, and lease to, private entities of four public transportation demonstration projects. At least one of the projects was to be in Northern California and one in Southern California.

In response to the legislation, a consortium of Perini Corporation/Daniel Mann, Johnson & Mendenhall (DMJM)/ and the High Speed Surface Transportation (HSST) Corporation submitted a rapid transit proposal for the LAX/Palmdale Corridor in Southern California. Theirs was the only transit project submitted, but it was not one of the four AB 680 demonstration projects selected.

The proposal consisted of a magnetic levitation train system extending from LAX to Palmdale Regional Airport primarily using State-owned right-of-way. The route, similar to that being considered by LACTC for its advanced technology demonstration project, would be 69 miles long and built in two phases. Phase 1 would consist of a 31-mile segment from LAX to Santa Clarita. Phase 2 would be a 38-mile segment from Santa Clarita to Palmdale. HSST would provide the technology.

The Perini/DMJM/HSST consortium plans to submit a proposal to LACTC in response to their Advanced Technology Demonstration Project (see section above).

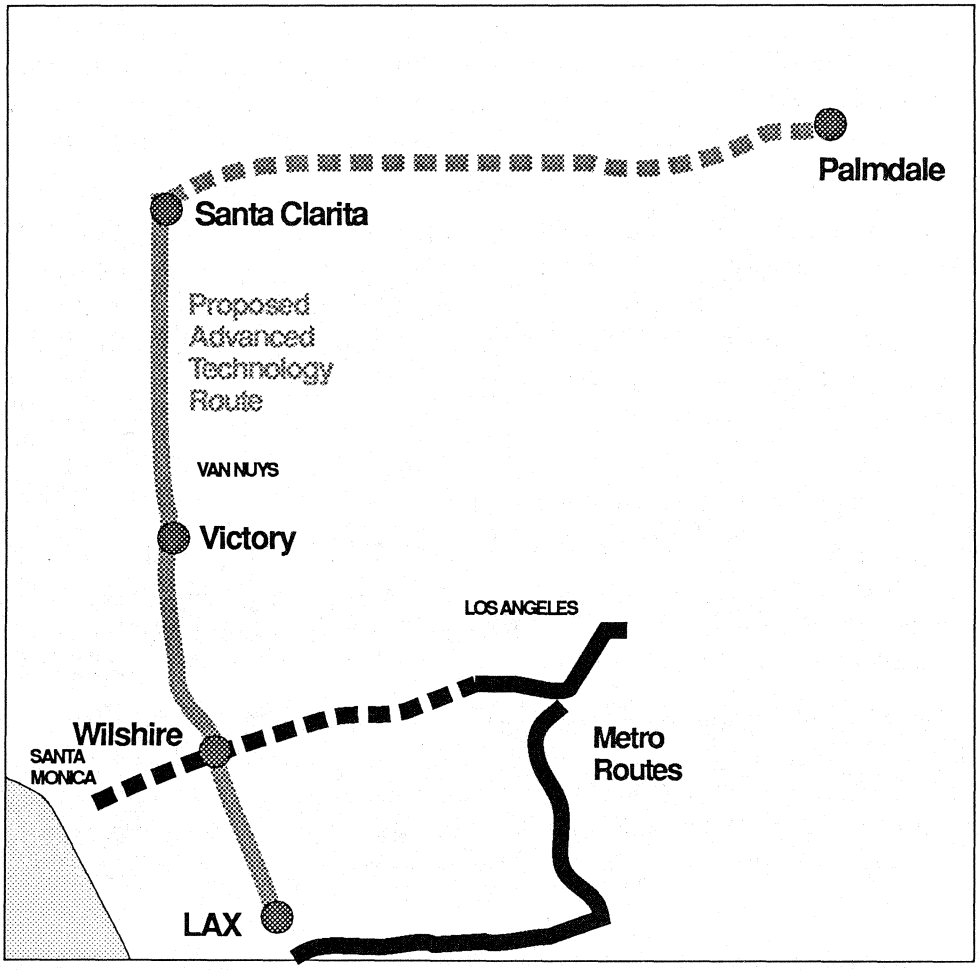
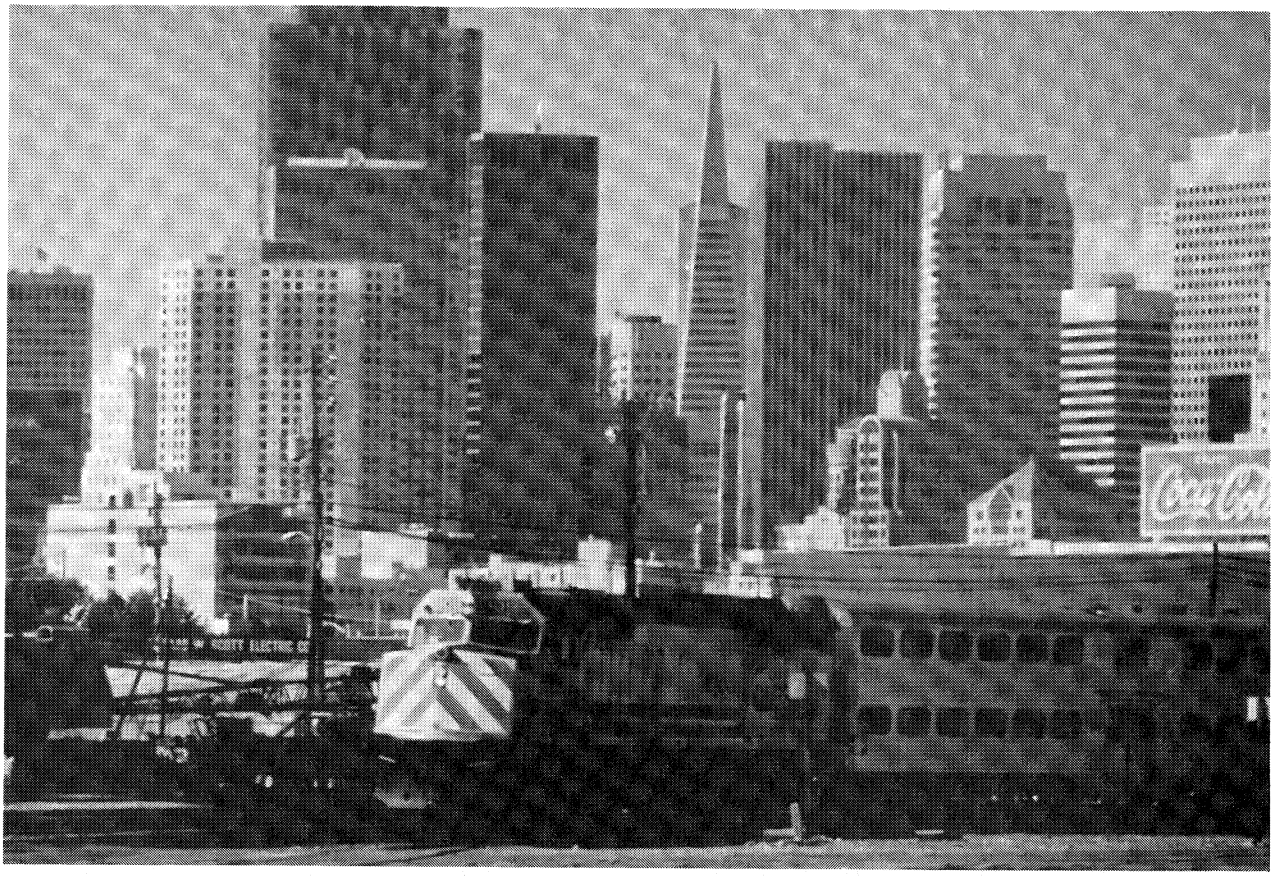


Figure 30. Map of Proposed Advanced Technology Route Between Los Angeles International Airport and Palmdale



The Peninsula Commute Service links San Francisco with San Jose and 24 intermediate stations on the Peninsula.

Chapter IX - Northern California Commuter Services

THE PENINSULA COMMUTE SERVICE (SAN FRANCISCO-SAN JOSE)

Objectives

The State's objectives on this route are to:

- Provide high quality transportation service to relieve congestion on parallel freeways.
- Increase revenue/cost (farebox) ratio.
- Increase ridership and revenues.
- Reduce operating costs.
- Improve bus connections and promote added feeder services.
- Facilitate transfer of management and operation of service to local control by the start of Fiscal Year 1992/93 as statutorily mandated.

Background

The Peninsula Commute Service (PCS), currently operates over a 47 mile route between San Francisco and San Jose. It is one of only two commuter rail services in the State. It is operated for Caltrans by the Southern Pacific Transportation Company (SP). (See Figure 8 of the Key Maps section for a map of the route.)

The PCS helps relieve the serious and growing traffic congestion problem on the San Francisco Peninsula. Commercial and housing development along the West Bay Corridor from San Jose to San Francisco continues to occur at a rapid rate. Since the PCS is an underutilized element of the West Bay transportation corridor, it offers a significant opportunity to increase ridership and relieve projected traffic congestion.

Ridership on the route (which has provided service continuously since 1864) reached an all-time peak of 9.5 million annual riders during World War II. Following a second peak during the Korean War, ridership entered a 25-year decline, falling from 9.3 million in 1952 to 4.3 million in 1977. Rising operating costs led to increased fares, which also contributed to the decline in ridership during this period.

In 1977, citing increasing financial losses, SP applied to the Interstate Commerce Commission for permission to discontinue the passenger service. The State Legislature, responding to the needs defined in a three-county Peninsula Transit Alternatives Project (PENTAP) Study, passed AB 1853 (Chapter 1216, Statutes of 1977), which authorized Caltrans to negotiate and contract with SP to continue operation of the PCS.

Caltrans and SP subsequently executed a ten-year "purchase of service" agreement to provide public financing for the service effective July 1, 1980, through June 30, 1990. By separate agreement with the local transit agencies, the required funding to cover any operating deficit comes from Caltrans, the San Francisco Municipal Railway (MUNI), the San Mateo County Transit District (SamTrans) and the Santa Clara County Transit District (SCCTD). SB 928 (Chapter 1283, Statutes of 1989) allowed Caltrans to extend the SP operating contract for three years beyond June 30, 1990, with the PCS being transferred to local control and management by July 1, 1992, and State funding for operations ending by July 1, 1993.

Shortly before the original operating agreement between Caltrans and SP expired on June 30, 1990, a new agreement was reached to ensure continued PCS operation into 1991. The amended agreement, which was effective July 1, 1990, extended the original agreement on a month-to-month basis with a 90-day notice required for cancellation. SP agreed not to give such notice before January 1, 1991. The following provisions were incorporated into the amended agreement:

- Operation of up to 66 trains per day (increased from 52)
- Operation of up to 15 special trains per year (increased from 12)
- SP will be reimbursed up to $2,503,400 annually for liability coverage (increased from $614,500)
- SP will be paid up to $1,200,000 annually for routine maintenance of fixed facilities - track and signals (increased from $559,000)

Organizational Structure

Under the amended purchase of service agreement, SP continues to operate the trains, but Caltrans and the transit districts administer the service through a cooperative agreement. A portion of the operating costs are funded through UMTA grants. Caltrans pays half the remaining deficit while the local agencies divide the other half according to a percentage formula. In addition, a major improvement program has been undertaken, which includes acquiring and improving station facilities, extending the line to a new multi-modal terminal in southern San Jose, developing a centralized maintenance facility, rehabilitating track, revising and expanding train schedules and frequencies, coordinating connections with local transit, providing feeder bus service to areas not previously served and providing an increased level of public information and marketing. The improvement program also included the purchase of new locomotives and cars for the service. These improvements are implemented through a Project Management Committee (PMC) composed of members from Caltrans, SP, MUNI, SamTrans and SCCTD. The PMC advises Caltrans on policy direction for the service and reviews the annual PCS Short Range Transit Plan (SRTP).

In response to the recommendations of a study conducted pursuant to Senate Concurrent Resolution 74 (Resolution Chapter 46, Statutes of 1984), representatives of the City and County of San Francisco, along with the Counties of Santa Clara and San Mateo, formed the Peninsula Corridor Study Joint Powers Board (JPB) in

July 1987. The JPB is conducting several planning studies for upgrading the service, and is negotiating the purchase of the operating right-of-way.

Before 1989, the SRTP for the PCS was prepared by Caltrans. However, it is now being prepared by the JPB[3] as a first stage of transferring the service to local control. The SRTP presents specific goals for the service, objectives associated with each goal, and, where possible, standards which show whether objectives are being met. It also outlines a specific program of capital and operating improvements designed to implement the goals. The objectives have been expanded to cover other functional areas involved in administering the service. The goals and objectives have also been refined based on over eleven years of experience with operation under the Caltrans/SP contract.

Actual service changes and improvements are, in many cases, subject to California Public Utilities Commission (PUC) approval, since the PUC retains jurisdiction over non-Amtrak passenger services in the State.

In addition, a Citizens Advisory Committee (CAC) was organized in August 1984. It is composed of ten volunteer members representing the three counties served by the PCS (four from Santa Clara, four from San Mateo and two from San Francisco). The CAC meets monthly and provides a forum for reviewing the performance of the trains and suggests improvements to the service. The CAC also takes positions on policy matters affecting the future of the service.

Transfer to Local Control and Management

SB 928 (Chapter 1283, Statutes of 1989) provides for Caltrans continued authority to negotiate and contract for rail passenger service in the corridor served by the PCS. However, in order to provide for an orderly but definite transition of the PCS from State to local control and management, the statutes now provide that Caltrans can contract with SP to extend the original ten year contract for no more than three years, with a final expiration date of June 30, 1993. The statutes direct the California Transportation Commission (CTC) not to allocate any further State funds for operation of the PCS beyond that date. Caltrans is directed to assign the operating contract for Fiscal Year 1992/93 to the JPB (or its designated operating agency) if such agency determines that the PCS service shall be continued. Also, Caltrans is directed to provide its operating support for the 1992/93 fiscal year to such agency. Continued operation of the PCS beyond 1993 requires the local agency to assume operational authority and make arrangements to run the PCS. The local agency may acquire from Caltrans and/or SP the property (including stations and facilities) and equipment needed to run the PCS, with such acquisition done in the manner provided in SB 2628 (see below). Finally, the CTC is directed not to allocate State funds to purchase the right-of-way unless the local agency takes over operation and control of the PCS by June 30, 1993.

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[3] Peninsula Commute Service Short Range Transit Plan, September 1990. Request copies from Peninsula Corridor Study Joint Powers Board, 1250 San Carlos Ave., P.O. Box 3006, San Carlos, CA 94070-1306; (415) 508-6269

By the enactment of SB 2628 (Chapter 1434, Statutes of 1988), the Legislature provided for the eventual redesignation of the JPB as the Peninsula Rail Transit District (PRTD). The PRTD was given the power to acquire property (including the PCS right-of-way) and equipment necessary to operate commuter rail service, and to operate the rail service or to contract for the operation of that service. As part of this legislation, all right-of-way, stations, facilities and equipment (including rolling stock) necessary for rail operations must be acquired by the PRTD before it can assume operation of the service. In addition, before the PRTD can be formed, the three counties must determine that adequate financing is available to acquire and operate the service.

Farebox Ratio Requirement

AB 1010 (Chapter 1183, Statutes of 1981), requires commuter rail services to maintain "a ratio of fare revenues to operating costs of at least 40 percent during the previous year of operation" in order to be eligible for State operating subsidies in 1984/85 and subsequent fiscal years.[4] The CTC was given authority to grant a waiver, not to exceed three years, to any service not achieving the 40 percent ratio in a specific year, in order to allow continued State operating subsidies.

By the 1986/87 Fiscal Year, all three of the permitted farebox recovery waivers had been granted for the PCS. To avoid cessation of State subsidy for the service, legislation was passed (SB 2187, Chapter 837, Statutes of 1986), that allows the Peninsula transit districts to make up the difference between the actual ratio and the 40 percent standard by contributing additional funds (called "local operating support") which are considered to be "fare revenues" for the purpose of calculating the farebox ratio. The three transit districts subsequently allocated the necessary funds, and as a result the 40 percent farebox ratio requirement has been met in each fiscal year since Fiscal Year 1986/87.

Operational and Service Improvements

Present Service

On weekdays, 54 trains are operated (27 in each direction) over the full distance between San Francisco and San Jose. Approximately two-thirds (37) of these trains are concentrated within the 2-3/4 hour morning and evening peak periods. Two-thirds of these peak period trains operate in the peak direction (11 trains inbound to San Francisco in the morning and 12 trains outbound to San Jose in the evening). On Saturday and Presidents' Day, 26 trains are operated, 13 in each direction. On Sundays and legal holidays, 20 trains are operated, 10 in each direction.

To alleviate traffic congestion resulting from the closure of earthquake damaged I-280 in San Francisco, Caltrans has been allocated up to $400,000 in State

[4] California, Government Code, Section 14031.9 (1981).

earthquake relief funds to implement two reverse peak trains for a one-year period. Effective April 1, 1991, a 6:55 a.m. southbound express train and a 4:55 p.m. northbound express train were added to the schedule.

In addition to the regular service, extra trains are operated for special events, such as the University of California-Stanford University "Big Game" held at Stanford in alternate Novembers and the "Bay to Breakers" foot race held in San Francisco in May. Also, regular trains make special stops at Bay Meadows during the horse racing season and at Stanford Stadium for football games and other major sporting events. Special trains are operated on a charter basis for events such as the Martin Luther King, Jr. Day celebration in San Francisco in January.

Station Maintenance

There are a total of 26 stations on the line, including the terminals at San Francisco and San Jose. In July 1985, Caltrans assumed responsibility from SP for maintenance activities at all stations, regardless of actual ownership status, resulting in reduced maintenance costs.

San Francisco Financial District Shuttle Bus and Peninsula Pass

The location of the current San Francisco station at Fourth and Townsend Streets is a major deterrent to train ridership. Passengers must transfer to local transit services to get to the Financial District, which is about two miles beyond the station. Transit services have not always been adequately coordinated with train arrival and departure times, and the availability of space on regular transit schedules cannot be guaranteed.

In May 1984, Caltrans implemented peak-hour dedicated bus shuttles on two routes to the San Francisco Financial District. The shuttles, which are operated by MUNI, provide reliable connections with rush hour trains. An additional shuttle route started operation in January 1989. Caltrans also developed a joint monthly pass with the three transit districts to facilitate the interchange of passengers between trains and buses. For $18 a month, monthly ticket holders can purchase a "Peninsula Pass" which entitles them to ride not only the bus shuttle, but also all regular MUNI and SCCTD services. The Pass is also accepted as the 60 cent base fare on SamTrans.

Evaluation of PCS ridership figures since the shuttle and pass were introduced shows a slight but steady increase in monthly train ticket sales, as well as in PCS ridership. This finding is encouraging, because both the shuttle and the pass were specifically developed to help promote monthly ticket sales. The average daily ridership on the shuttles is 4,100 and average monthly Peninsula Pass sales are 4,400.

In September 1988 Caltrans initiated feeder minibus service to workplace locations outside San Francisco, and in November 1988 to Santa Cruz. The results of these services are discussed in a report entitled "Evaluation of PCS Feeder Bus Program", which is included at the end of this Chapter.

Marketing and Outreach

Caltrans uses a professional marketing consultant to establish marketing goals, objectives and strategies. The consultant, MacDaniels Henry & Sproul, of San Francisco, is responsible for planning and overseeing all advertising, sales promotion, public relations and communications programs outlined in the PCS marketing plan.

The marketing budget for Fiscal Year 1990/91 is $600,000, with emphasis given to increasing public awareness of the PCS as a transportation alternative. The media utilized is spot and cable television, along with newspaper as follows:

Newspaper	$139,000
Television	$287,000
Total	$426,000

The community outreach program, funded for an additional $85,000 includes participation in the MTC's Regional Transit Connection program. This program makes PCS monthly tickets available for sale in the workplace and at several other designated locations. The outreach program also makes use of a static display unit and slide show/video to publicize the rail service at shopping centers, workplaces, service clubs, professional organizations and senior centers.

Performance

As a result of the Loma Prieta earthquake in October 1989, ridership on the PCS rose dramatically, increasing by an average of 11.4 percent in the four months following the earthquake. In March 1990 ridership increased even further as a result of curtailed parallel bus service due to a Greyhound strike. Monthly ridership increased an average of 24 percent during the four strike months and has continued to show equally dramatic increases in the months following resumed bus service. Overall, ridership rose 12.8 percent in Fiscal Year 1989/90.

Monthly ridership for Fiscal Years 1983/84 through 1989/90 is detailed in Figure 31. The next chart, Figure 32, summarizes ridership and financial performance data on an annual basis since the start of State involvement in July 1980. Figure 9 of the Key Maps and Ridership Graphs section is a graphical illustration of actual and average monthly ridership since January 1978.

PENINSULA COMMUTE SERVICE

MONTHLY RIDERSHIP

Month	FY 83/84 Riders	FY 84/85 Riders	Percent Change	FY 85/86 Riders	Percent Change	FY 86/87 Riders	Percent Change	FY 87/88 Riders	Percent Change	FY 88/89 Riders	Percent Change	FY 89/90 Riders	Percent Change
July	385,591	431,252	10.6%	451,510	4.7%	439,974	-2.6%	462,959	5.2%	454,951	-1.7%	471,663	3.7%
August	403,797	428,336	5.7%	444,590	3.8%	428,963	-3.5%	464,103	8.2%	483,542	4.2%	495,457	2.5%
September	405,647	431,556	6.0%	453,324	5.0%	446,713	-1.5%	466,029	4.3%	475,216	2.0%	469,557	-1.2%
October	439,318	481,878	8.8%	475,974	-1.2%	481,719	1.2%	491,292	2.0%	486,309	-1.0%	512,620	5.4%
November	497,289	456,684	-8.9%	467,919	2.5%	457,817	-2.2%	480,834	5.0%	471,858	-1.9%	532,823	12.9%
December	459,041	433,122	-6.0%	448,152	3.5%	444,219	-0.9%	452,966	2.0%	450,962	-0.4%	498,489	10.5%
January	456,166	476,541	4.3%	477,268	0.2%	464,532	-2.7%	470,641	1.3%	482,852	2.6%	534,887	10.8%
Febuary	404,559	402,141	-0.6%	422,863	5.2%	425,417	0.6%	444,201	4.4%	419,304	-5.6%	473,347	12.9%
March	442,928	448,791	1.3%	471,460	5.1%	475,030	0.8%	486,726	2.5%	487,509	0.2%	598,924	22.9%
April	429,554	446,528	3.8%	454,386	1.8%	454,862	0.1%	451,519	-0.7%	460,387	2.0%	577,802	25.5%
May	426,530	446,738	4.5%	455,805	2.0%	461,626	1.3%	467,845	1.3%	490,202	4.8%	599,404	22.3%
June	409,142	421,805	3.0%	435,116	3.2%	440,680	1.3%	456,812	3.7%	469,849	2.9%	588,609	25.3%
Fiscal Year Total	5,159,562	5,305,372	2.7%	5,458,367	2.9%	5,421,552	-0.7%	5,595,927	3.2%	5,632,941	0.7%	6,353,582	12.8%
Monthly Average	429,964	442,114	2.7%	454,864	2.9%	451,796	-0.7%	466,327	3.2%	469,412	0.7%	529,465	12.8%

Figure 31. Peninsula Commute Service Monthly Ridership

PENINSULA COMMUTE SERVICE
Annual Performance - State Fiscal Years

State Fiscal Year	Ridership Data		Financial Data							
	Riders	PM/TM*	Total Revenue (1)	Total Operating Expense (2)	Operating Loss	UMTA (3) Contribution	Total State Cost (4)	Total Local Cost (5)	Train Loss per PM*	Revenue/ Cost Ratio
1980-81	5,912,317	215.9	$7,906,071	$18,710,660	$10,804,589	$2,000,000	$4,892,731	$4,555,731	0.079	42.3%
1981-82	5,777,550	207.1	$7,820,695	$20,667,329	$12,846,634	$2,000,000	$5,946,689	$5,636,689	0.095	37.8%
1982-83	4,861,900	177.9	$7,970,635	$21,697,265	$13,726,630	$2,000,000	$6,387,826	$5,987,912	0.117	36.7%
1983-84	5,232,100	185.9	$8,399,443	$23,316,060	$14,916,617	$2,000,000	$6,870,597	$6,178,465	0.122	36.0%
1984-85	5,308,575	190.8	$8,790,714	$24,837,198	$16,046,484	$2,000,000	$7,567,614	$6,314,126	0.128	35.4%
1985-86	5,548,375	195.6	$9,024,757	$24,920,343	$15,895,586	$1,693,124	$7,856,373	$6,479,423	0.123	36.2%
1986-87	5,421,410	181.2	$10,328,048	$25,820,120	$15,492,072	$1,273,160	$7,801,881	$7,643,048	0.121	40.0%
1987-88	5,597,480	180.2	$10,307,512	$25,768,779	$15,461,267	$1,164,973	$7,889,476	$7,265,590	0.117	40.0%
1988-89 (6)	5,619,760	181.5	$10,360,596	$25,901,490	$15,540,894	$1,157,994	$7,964,339	$7,187,490	0.117	40.0%
1989-90 (7)	6,351,355	205.9	$11,424,547	$28,561,367	$17,136,820	$1,147,252	$8,945,776	$7,690,428	0.114	40.0%

* Passenger Miles per Train Mile is a measure of average load on a train. Loss per Passenger Mile is a measure of the average loss per passenger mile traveled.

(1) Total revenue includes: Fares, Southern Pacific (S.P.) payment for employee passes through FY 84/85, leases, parking, the Peninsula pass and local operating support pursuant to SB 2187.

(2) Total operating expense incudes: S.P. contract, station maintenance, administration, Peninsula pass/bus shuttle parking and marketing (but excludes costs for lease purchase of equipment and stations).

(3) In addition, S.P.provided an annual contribution of $400,000 from F.Y. 1980-81 through F.Y. 1984-85 only.

(4) Includes State share of operating expenses and costs for lease purchase of equipment.

(5) Includes local share of operating expenses, costs for lease purchase of equipment and stations, and local operating support pursuant to SB 2187. Local share is covered by the transit districts in the counties of Santa Clara, San Mateo and San Francisco.

(6) For FY 1988/89, State operations (administration) cost was $0.98 million; and State marketing expenditures were $0.63 million; and local marketing expenditures were $0.06 million.

(7) Expense and revenue for F.Y. 1989-90 are based on S.P. billings, which are subject to revision after audit. For F.Y. 1989-90, State operations (administration) cost was $1.13 million; State marketing expenditures were $0.63 million and local marketing expenditures were $0.06 million.

Figure 32. Peninsula Commute Service Annual Performance

A report titled "Statistical Summary of Commuter Rail Service" was presented at the Transportation Research Board - National Academy of Science meeting in January 1991. This report included a table (Figure 33) which contains data covering commuter rail services in seven of the major North American urban areas. As shown on this table, the PCS service is very efficient and cost effective. The cost per passenger-mile of $0.19 for 1989 is the lowest reported and is considerably below the average of $0.258 for the reported services. However, the total revenue of $0.07 per passenger-mile is low. This is a reflection on the PCS policy of charging low fares in order to attract auto users to the service.

SUMMARY OF OPERATING STATISTICS AND COSTS *

Seven North American Properties **
(Representing New York, New Jersey, Toronto, Chicago, Boston, San Francisco/San Jose)

	Range	Average	Peninsula Commute Service
Average trip length	18.1-27.8 miles	22.5 miles	23.4 miles
Operating cost per passenger	$4.07 - $8.00	$5.20	$4.37
Fare revenue per passenger	$1.48 - $3.54	$2.47	$1.48
Operating costs per passenger-mile	$0.19 - $0.30	$0.258	$0.19
Fare revenue per passenger-mile	$0.06 - 0.14	$0.112	$0.06
Total revenue per passenger-mile	$0.07 - $0.17	$0.125	$0.07
Passengers per car-mile	1.31 - 2.60	1.78	2.60
Passenger-miles per train-mile	135.4 - 337.0	209.8	204.6
Revenue recovery ratio #	37% - 62%	49%	38%

* Total passengers per year: 243 million
** Properties and year of reported statistics: Long Island RR (FY 1989), New Jersey Transit (FY 1990), GO Transit (FY 1990), Metra RTA (Calendar 1989), NICTD (Calendar 1989), MTBA (FY 1990), PCS (FY 1990)
\# Total revenue divided by operating cost

Figure 33. Summary of Commuter Rail Operating Statistics and Costs

Fare Structure

Caltrans contracted with Price Waterhouse to conduct an evaluation of the fare structure and ticketing procedures used on the PCS. The final study, dated June 1989, made recommendations regarding the level of fares, the types of tickets and the method by which fares should be collected, in order to optimize revenues. The study also included the development of a model for predicting ridership changes resulting from changes in fare levels. Specific study recommendations include:

- Self-service fare collection (including purchase of automatic ticket vending machines)
- Realigned zone boundaries
- Simplified tariff structure
- Rounded fares
- Youth ticket (monthly ticket only) replacing student tickets

As a result of public hearings held in each of the three PCS-served counties in mid-December 1988, some minor modifications were made to the consultant's recommendations. The new fare structure was implemented in December 1989.

Also, in response to the study's recommendations, Caltrans contracted with Booz, Allen & Hamilton, Inc., for preparation of performance specifications for ticket vending machines. See the Ticket Vending Machines section in this chapter.

Proposed Fare Increase

Caltrans has proposed a fare increase to offset higher operating costs. The proposal would:

- Leave one-way and discount round trip tickets unchanged
- Raise monthly train tickets by an average of 15 percent
- Increase monthly parking fees from $3 to $4
- Eliminate weekly tickets
- Increase 20-ride tickets by an average of 3 percent
- Change youth tickets to discount monthly tickets eligible for purchase by youth, elderly and disabled passengers, and raise the price by an average of 21 percent
- Double the penalty (from 50 cents to one dollar) for purchasing tickets aboard the train when they could have been purchased at an open station

Public hearings were held in January 1991 on this proposal. The proposed fare increase is expected to be implemented by September 1, 1991.

Right-of-Way Acquisition

In January 1991, the JPB approved a letter of intent to purchase 52.4 miles of SP mainline right-of-way between San Francisco and San Jose for $242.3 million. The agreement also provides for acquisition of the 11-mile Dumbarton line between Redwood City and Newark, an 8.4 mile portion of the Vasona line in Santa Clara County between San Jose and Vasona Junction, and trackage rights for an additional 25-mile passenger service to Gilroy as soon as operational arrangements are completed.

Purchase prices for these added lines are $12.7 million for Dumbarton, $5 million for Vasona and $8 million for Gilroy trackage rights. Also in the package are five-year purchase options to acquire other important corridors on the Peninsula, including the San Bruno line (a candidate for the Bay Area Rapid Transit/ San Francisco Airport extension) and the Moffett Branch which is a potential corridor for Santa Clara County light rail service. Purchase prices for the option corridors are $15 million for the San Bruno Branch, and $5 million for the Moffett Branch. Option prices will remain fixed for three years. The remainder of the Vasona line from Vasona Junction to a site near the Permanente plant in North Cupertino (8.4 miles) is also included in the option package.

Closing of the right-of-way transaction is contingent on financing being obtained by the three JPB members (San Francisco, San Mateo and Santa Clara counties). A major proposed source of funding is the $120 million earmarked for the PCS in Proposition 116. The JPB will seek the remaining funding from other sources.

The contract establishes the JPB's right to operate service to Gilroy on SP's existing trackage from Lick Junction in South San Jose, the proposed site of a rail maintenance facility for PCS and Amtrak rolling stock. A five-year option to purchase half the Gilroy corridor for an additional $12 million is also included in the agreement.

Property along the corridor identified by the JPB as necessary for expanded parking and grade separation projects will also be conveyed by SP. The JPB will control scheduling and dispatching for passenger and freight operations.

The JPB and SP will attempt to close the transaction as soon as possible. Details, which remain to be completed before closing can occur, include project financing, negotiation of operating agreements, completion of an environmental audit and title investigation.

Rolling Stock

In 1983, 63 new stainless steel "gallery" rail cars were ordered from the Sumitomo Corporation to completely re-equip the PCS. Also, eighteen new F40PH locomotives were purchased from General Motors' Electro-Motive Division (EMD), and were delivered in 1985. Two additional locomotives and ten additional cars were purchased later and delivered by December 1987.

The new rolling stock made significant operational improvements possible because of its head-end power (HEP) design and push-pull capabilities. Head-end power is a system whereby power for heating, lighting and air conditioning the entire train is provided by the locomotive instead of individually in each car. Maintenance costs are lower because only one power unit per train must be maintained. Push-pull operation eliminates the need for trains to be turned at terminals since the trains always face the same direction, regardless of the direction of travel.

At the present time, the gallery cars in use on the PCS are not wheelchair accessible. State money has been committed and a Federal grant is pending to provide such accessibility. Caltrans has initiated a demonstration project in which mock-ups of PCS passenger cars are being constructed to test the feasibility and operation of onboard lifts and accessible restrooms. A consultant has been retained to develop the testing and evaluation procedures. Based upon the consultant's evaluation and recommendation following the demonstration project, a decision will be made whether to retrofit the 21 cab-control cars or 21 passenger trailer cars. Another option to be considered is to obtain additional fully accessible cars. This option may be the most cost effective. Accessible service is planned to begin in 1993 using the option found to be most cost effective.

Centralized Maintenance Facility

A proposed centralized maintenance facility could significantly reduce operating costs and improve equipment utilization. The PCS currently lacks such a facility, and equipment maintenance is performed by SP at three separate locations: San Francisco and San Jose, where periodic inspections and minor maintenance functions are performed, and Roseville (near Sacramento), where more extensive maintenance takes place. Movement of equipment to and from Roseville takes two days in each direction. It is estimated that equipment transportation costs alone could be reduced by $425,000 to $530,000 annually with a new on-line facility.

The proposed project will provide a centralized equipment maintenance facility within the PCS service area affording efficient and effective maintenance procedures. The project will include a 1,000-foot long building containing progressive "whole train" inspection facilities; diesel locomotive maintenance and repair facilities; an automatic train washer; car cleaning, sanding and fueling stations; and crew and administrative facilities. The project will also include a train storage yard and yard control equipment. Trackside electrical power will be provided, eliminating the need for operating locomotives at night during repair work. The facility will require approximately 35 acres.

Amtrak is interested in the development of a joint PCS/Amtrak maintenance facility in the San Jose area, allowing Amtrak to relocate its maintenance operations from the Oakland SP facility to a new, state-of-the-art installation. This would also allow extension of the terminal for Amtrak's *California Zephyr* and

San Joaquin from Oakland to San Jose generating additional ridership for these trains. Thus far, Amtrak has committed $1.5 million towards design and right-of-way acquisition. Further participation will be negotiated.

An Initial Study to identify potential sites for the facility was completed in August 1988. Two preferred sites were identified - the Newhall Street Yard located at the Santa Clara-San Jose border and the Lick Quarry site (on Pullman Way) located in San Jose. Environmental Science Associates (ESA), under contract to Caltrans, prepared a Draft EA/EIR, which was distributed to the general public. After a series of public hearings in August 1989, Lick Quarry was selected as the site for the facility. A final EA/EIR, which includes mitigation measures for the facility, has been completed.

Caltrans contracted with STV/Seelye Stevenson Value and Knecht in 1986 to conduct preliminary engineering for the facility. UMTA approved a Section 9 grant in the amount of $500,000 for this purpose. UMTA authorized expenditure of up to 60 percent ($300,000) of the grant for a non-site specific preliminary design, which included interior design, equipment needs and general layout of the facility. The balance of the grant is currently being used by STV for site specific preliminary design.

In March 1990, as a separate contract, Caltrans issued a Request for Qualifications (RFQ) for final design and engineering of the facility. STV was selected as the most qualified candidate. Caltrans has submitted an UMTA Section 3 grant for $4,514,164 to cover the cost of the final design/engineering contract. The Federal share in the amount of $3,385,623 is to be matched by $564,270 in State TCI funds and an equal contribution from Amtrak. A labor protection [UMTA Section 13(c)] protest filed by SP's labor unions has delayed approval of the Federal grant. Caltrans has requested a letter of no prejudice to allow expenditure of local funds without jeopardizing the Federal grant to proceed with design and right-of-way acquisition.

Caltrans will be requesting approximately $9.3 million for purchase of the right-of-way at the Lick Quarry site. After the final design and engineering is complete, Caltrans will request a Full-Funded Grant Agreement from UMTA to finance up to 75 percent of the public share of the construction portion of the facility. The remaining public share of the project will be financed through State and local resources.

San Jose Terminal Improvements

A program of projects in the San Jose area is under development that will provide PCS riders with expanded service, improved transit connections and a much needed expansion of parking facilities. The primary element of this program is the construction of a new terminal located at West Alma Avenue, about two miles south of the existing terminal on Cahill Street. The new station, which will be named "Tamien" after the Indian tribe whose burial ground was discovered at the site, will provide direct interface with the Guadalupe Corridor Light Rail Transit. Initially it will have 400 parking spaces, with provisions for expansion to

1700 spaces. At Cahill Street the existing station will be rehabilitated and the number of parking spaces will be increased from 450 to 880.

A fully-funded grant agreement to finance the project has been approved by UMTA. Construction of the extension and the Tamien Station began in July 1990, with completion expected in 1992. Rehabilitation of the Cahill station buildings and expansion of the parking facilities is expected to begin in mid-1992 and be completed by the end of 1993. The San Jose terminal improvement projects are expected to generate a substantial increase in PCS ridership to and from the San Jose area.

Stations

Caltrans is currently undertaking a program of acquiring virtually all of the stations on the line, using both State and Federal funds. All stations except San Francisco (Fourth and Townsend Streets), a portion of the parking at San Jose and parking lots at Palo Alto (the station will not be acquired) have already been purchased. Caltrans has an approved UMTA appraisal for the San Jose station. An UMTA Section 3 grant is pending to provide the remaining funds necessary to purchase this station. Also, UMTA Section 3 funding has been requested by Caltrans to acquire the Palo Alto parking lot. However, to meet a deadline imposed by the property owner, SamTrans and SCCTD advanced funds to purchase this property. The transaction was completed in June 1991. (See the San Francisco Improvements section below for the acquisition status of the San Francisco Terminal.)

Caltrans has developed an on-going station improvement program based on a series of in-house studies and consultant reports. Some of these projects have been implemented with both State and Federal funds; however many improvements have not yet been financed.

Currently, parking at most PCS stations is at or near capacity. At some stations, parking demand far exceeds the space available. This shortage will worsen with increased ridership expected as a result of augmented service frequencies and the planned extensions to Gilroy and downtown San Francisco. Additional parking must be provided if the service is to achieve its full ridership potential. The station improvement program contains parking expansion projects that will alleviate existing parking congestion and provide for future parking needs.

The program also includes improvements which will replace existing center-boarding platforms with outside loading platforms with center fence separation. Pedestrian traffic across the tracks can then be controlled using signals at specific crossing points. This has important safety implications. At stations where outside boarding is not feasible, improvements are planned to increase the safety of the center-boarding configuration.

In addition, Caltrans has had an on-going rehabilitation program of minor contracts, which has been financed from the Transit Capital Improvement (TCI) program in recent years. The 1990/91 fiscal year program was not financed due to

the requirement for limiting the State's involvement in a project to 50 percent of the non-Federal share. This program is expected to continue when a local match is secured.

Ticket Vending Machines

In June 1989, Price Waterhouse, under contract to Caltrans, completed a fare study entitled, "San Francisco-San Jose Rail Tariff Study". In the report, the consultant recommended conversion to a barrier-free proof-of-payment fare collection system similar to the San Diego, Santa Clara and Sacramento Light Rail systems. Under this system, tickets would be purchased from ticket vending machines (TVM) at stations and randomly inspected by authorized personnel aboard trains. The need for ticket sales by agents at stations and conductors aboard trains would be eliminated. Conductor personnel could be used instead to inspect tickets, on a random basis, for proper payment. Full implementation of a proof-of-payment fare collection system is projected to reduce operating costs by $2.1 million annually.

As a result of the fare study's recommendations, a Caltrans consultant prepared specifications for ticket vending machines. The machines specified will include the following features:

- Credit/debit card acceptance
- Magnetic encoding capabilities
- Data collection (including ridership and fare data)
- Security alarms
- Lighting

The machines will be capable of dispensing all tickets currently used by the PCS, as well as transfers/tickets to all connecting transit systems, allowing passengers to complete a multi-mode transit trip with one ticket. In addition, the existing monthly ticket with a Peninsula Pass will be issued as a magnetically encoded credit card-size ticket, compatible with MUNI and BART (within San Francisco) fare gates. The machines will also include provisions for issuing magnetically-encoded stored-value tickets for future coordination with BART. This has important regional fare coordination implications.

Caltrans currently has an UMTA Section 9 grant pending to complete the funding for the purchase of eleven ticket vending machines as a demonstration project to test passenger acceptance and machine reliability. No labor changes will be implemented during this phase of the project. Funding for an additional 55 machines is programmed in Fiscal Year 1993/94, which will allow for installation of a minimum of two machines at each of the existing 26 stations and the proposed Tamien Station. Stand-alone validators will also be purchased and installed at stations to ensure passengers can quickly and conveniently validate their tickets before boarding trains.

The actual number of ticket vending machines and stand-alone validators to be purchased was determined by the consultant as part of the specifications contract. Patronage levels at each station plus an allowance for ridership increases were used to determine the number of machines required for each station. A minimum of two machines will be placed at each station to provide a "back-up" in the event that one machine is out of service.

San Francisco Improvements

Caltrans is seeking programming of UMTA Title 23 (I-280 Transfer) funds in Fiscal Year 1991/92 for acquisition of the San Francisco Terminal at Fourth and Townsend Streets, rehabilitation of Tunnel No. 2, rehabilitation of track within San Francisco, preliminary and final engineering for a grade separation at 16th Street in San Francisco and rehabilitation of the four San Francisco stations (Fourth and Townsend, 22nd Street, Paul Avenue and Bayshore).

Under the terms of the Caltrans/SP Operating Agreement, SP has leased Caltrans the San Francisco Terminal, while granting Caltrans an option to purchase it. Caltrans has exercised this option and has made an offer. The offer was not accepted by SP or its purchaser of the property (Catellus), so the matter was submitted to arbitration between the State and Catellus. Based upon the appraised value of the station, Caltrans is requesting $1.8 million ($1.53 million UMTA Title 23 matched with $270,000 State/local funds) to purchase the Terminal. The actual purchase price is subject to negotiation and arbitration.

Caltrans is also requesting $430,870 to rehabilitate Tunnel No. 2, which is within the City and County of San Francisco. The specific work, which was planned in conjunction with SP, includes removing the existing track system to the invert of the tunnel; installing filter fabric drainage, new ballast, new ties and continuous welded rail; and grouting cracks in the tunnel surface. The cost of rehabilitating Tunnel No. 2 will be shared with SP as follows: Caltrans - $430,870; SP - $14,630.

In addition, $1.2 million is being sought for preliminary and final engineering for a grade separation at 16th Street in San Francisco. The City and County of San Francisco has committed $90,000, representing one-half of the non-Federal share, to the project.

Caltrans is also seeking $1.0 million ($850,000 UMTA Title 23; $150,000 State/local match) to improve the four San Francisco stations and $933,750 ($793,750 UMTA Title 23, $140,000 State/local match) to rehabilitate PCS track within San Francisco.

Track Improvements

In accordance with the SP/Caltrans operating agreement, as amended, Caltrans pays SP up to $1.2 million a year to maintain track and signals used by the passenger service at a level equal to their 1977 condition. Any improvements to track, such as installation of continuous welded rail (CWR), tie replacement, curve work, surfacing and station area track rehabilitation, are considered capital improvements rather than maintenance. The cost of these projects is

apportioned between Caltrans and SP by a formula comparing use of the track by freight and passenger service.

Caltrans, in conjunction with SP, has developed a track capital improvement program for rehabilitation work on track attributed to the passenger (not freight) use of the rail line. The capital program is currently underway, financed by previous UMTA Section 9 funds and State resources. Many rehabilitation projects have been completed, while others are currently under construction. Funding has been requested in Fiscal Years 1991/92 through 1998/99 to continue this rehabilitation program. Work programmed for Fiscal Year 1991/92 includes rehabilitation of road grade crossings and station area track and installation of continuously welded rail.

Tower Consolidation

PCS trains are directed along the SP tracks by use of signals and switches operated from four interlocking control points at San Francisco, Santa Clara, College Park and San Jose.

Caltrans has proposed eliminating three of these facilities (Santa Clara, College Park and San Jose) and consolidating the functions in the San Francisco tower through installation of modern control equipment. This consolidation and modernization project will improve operating safety and reliability and reduce operating costs (nine SP staff positions could be eliminated for a savings to SP and Caltrans of over $450,000 annually).

The tower consolidation project, for which preliminary engineering has begun, is divided into two phases. The first phase automates switching functions at the San Jose Yard (previously done manually) and consolidates the functions of the San Jose, Santa Clara and College Park towers at the San Francisco facility. Funding for this phase of the project has been secured. The second phase (for which Caltrans is seeking funding in Fiscal Year 1992/93) includes track and signal modernization work associated with the tower consolidation project.

Radio Communication

Currently, SP train crews operating the PCS have direct radio communication with SP base stations located in San Jose and at Bayshore Yard. Neither of these base stations is located on land being purchased for the future operation of the service. In all probability, the future operator of the service will be required to provide their own radio frequencies and base stations apart from those currently used by SP. Location of the existing repeaters at the north and south end of the route has created a fringe area between Atherton and San Mateo where radio reception is difficult.

With the completion of the tower consolidation project described above, all interlocking functions are scheduled to be controlled from San Francisco. This will mean that there will be no reliable emergency radio communication available

for the trains south of San Mateo. When the maintenance facility is completed, a radio facility will need to be established at this location to remedy that situation.

Caltrans is seeking $350,000 in Federal, State and local funds for installation of a base station in the East Bay which will allow radio coverage of the current route from San Francisco to San Jose and another base station at or near the proposed maintenance facility in San Jose to provide radio coverage south to Gilroy.

Railroad Bridge Earthquake Restrainers

Girder and truss railroad bridges and grade separations along the PCS line may be in need of earthquake restrainers. There are currently 37 older structures between San Francisco and the Tamien station site in San Jose which may need to be reinforced. These structures will be inspected to determine the extent or necessity of such reinforcement work. At this time, Caltrans/JPB is seeking to program $1 million ($800,000 UMTA Section 9, matched with $200,000 State/local funds) in Fiscal Years 1994/95, 95/96 and 96/97. A project scope will be provided when the inspection work is completed. If, upon inspection, the condition of any railroad bridges and grade separations requires reinforcement, Caltrans will request that these funds be accelerated on an urgency basis.

Downtown San Francisco Extension

The failure to provide direct service to the San Francisco Financial District has long been identified as one of the primary deficiencies of the PCS. Many studies have been performed over the years which have evaluated a variety of proposals to extend the line to a new downtown terminal. The most recent of these was the "Interim Upgrade Study" conducted by Hill International for the JPB, and completed in October 1987.

In March 1988, a regional consensus was reached on MTC's New Rail Starts and Extension Program. This program (MTC Resolution No. 1876) includes a San Francisco Terminal Relocation Project and a proposed agreement to fund the project. Federal funds will be sought for approximately 25 percent of the project costs. The remaining funds will come from State sources, SamTrans, SCCTD and the City and County of San Francisco.

In September 1988, the JPB initiated an Environmental Impact Statement (EIS/EIR) in compliance with UMTA, the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). This UMTA sanctioned study is analyzing alternative site locations in terms of capital and operating costs, patronage projections and environmental impacts. The overall objective of the study is to identify a cost-effective and desirable location for the PCS's downtown terminal station so that it best serves the transit patrons, most of whom are destined to the downtown financial district, and meets the needs of increasing travel into downtown San Francisco. A draft report for public and agency review is expected in Summer 1991. At that time a preferred alternative will be selected.

Gilroy Extension

SCCTD has proposed extending the existing 47 mile PCS 28 miles into southern Santa Clara County as authorized by SB 1159 (Chapter 922, Statutes of 1989). This legislation provides for the extension of the PCS to Gilroy if the following conditions are completed:

- SCCTD agrees to pay all capital costs required to initiate the new service and to reimburse the operator for all operating deficits incurred during the first two years of service.
- Local agencies agree to reimburse the operator for all operating deficits incurred after the first two years of service.
- Completion by SCCTD of a feasibility study for the extended service.
- Completion and approval of all required environmental impact report documents relating to the proposed service extension.

The service extension would connect South County residents with light rail, bus and other commute systems in San Jose. Service would operate along existing SP tracks parallel to Monterey Highway, with stations in south San Jose, Morgan Hill, San Martin and a terminal in Gilroy.

Now in the design phase, the project is proposed to begin operation in mid-1993. In the interim, Santa Clara County has proposed initiating limited service (two trains in each direction on weekdays only). This proposed schedule calls for two trains leaving Gilroy in the morning and returning from San Jose in the evening.

In January 1991, the JPB approved a letter of intent to acquire the PCS right-of-way from SP, including operating rights to Gilroy. (See the Right-of-Way Acquisition section above for additional information.)

Passenger Equipment Acquisition Fund (PEAF)

AB 3645 (Chapter 1510, Statutes of 1984) allowed Caltrans to participate in "safe-harbor" leasing of rail passenger cars and locomotives. Under this arrangement, public agencies are permitted to sell equipment to private companies, and then lease it back. The private companies then obtain the tax benefits resulting from depreciation rights. Funds raised by the State through this means are placed in the Passenger Equipment Acquisition Fund (PEAF), which was created under SB 1498 (Chapter 1406, Statutes of 1986). The PEAF can be used to purchase new and rehabilitate existing equipment, and to fund rail capital improvements.

The following PCS projects have been identified for potential PEAF funding:

Project	Estimated Cost
Caltrans share of installation cost for cellular telephones in all 21 cab cars	$30,000
Installation of eleven ticket vending machines at various stations to test machine reliability and passenger acceptance	145,812
Station acquisition	608,750
Tower consolidation	154,000
Wheelchair accessibility demonstration project	232,000

Transit Capital Improvement Projects

Figure 34 lists the TCI projects for the PCS for the 1989/90, 1990/91 and 1991/92 fiscal years.

Peninsula Commute Service TCI Projects

Applicant	Summary Project Description	Amount Funded (TP&D)	Authorization
Fiscal Year 1989/90			
Caltrans	R/W acquisition, rehabilitate existing San Jose Caltrain station, Alma station terminal and track construction/off street parking	$5,400,000 *	CTC authorized Caltrans to allocate (September 20, 1989)
Caltrans	Track rehabilitation and construction	$700,000	CTC authorized Caltrans to allocate (August 24, 1989)
Caltrans	Station rehabilitation including landscaping, parking lots and lighting	$500,000	CTC authorized Caltrans to allocate (August 24, 1989)
Caltrans	Design new maintenance facility and purchase right-of-way	$1,500,000	CTC authorized Caltrans to allocate (August 24, 1989)
	TOTAL	**$8,100,000**	
Fiscal Year 1990/91			
Caltrans	Right-of-way acquisition at San Jose Terminal (Cahill Street) for development of parking facilities	$340,000	CTC authorized Caltrans to expend (February 21, 1991)
Caltrans	Construct new maintenance facility	$1,666,000	On CTC list of approved projects
Caltrans	Station improvements, accessibility implementation	$618,000	On CTC list of approved projects
	TOTAL	**$8,440,000**	
Fiscal Year 1991/92			
Caltrans	Construct new maintenance facility	$8,694,000	FY 1991/92 Funding recommended by CTC in March 1991, but subject to change based upon the level of funding provided in the State Budget for Fiscal Year 1991/92
Caltrans	Platform and parking improvements	$145,000 **	
Caltrans	Station rehabilitation	$250,000 **	
	TOTAL	**$9,089,000**	

* Includes $791,981 in Article XIX funding

** Article XIX funding for 1988 STIP projects

Figure 34. Peninsula Commute Service TCI Projects for FY 1989/90, 1990/91 and 1991/92.

Joint Powers Board Proposed Capital Improvement Plan

The JPB has released its draft short range transit plan for Fiscal Years 1991/92 through 1999/2000, which includes a Nine-Year Capital Improvement Plan for the PCS. As noted, this is a draft Plan, with adoption by the JPB not scheduled before September 1991. This Plan, presented as Figure 35, does not necessarily include the local matching funds required by statute, nor does it constitute a funding commitment by the State. The CTC has not approved the right-of-way purchase funding from Proposition 116 shown in the draft Plan for Fiscal Year 1991/92. Also, the CTC has not programmed the full amount of Proposition 108 funding shown for the San Francisco Terminal Relocation Project for Fiscal Year 1994/95.

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PENINSULA COMMUTE SERVICE

NINE YEAR CAPITAL IMPROVEMENT PLAN

(FY 1992 - FY 2000)

PROJECT	Funding Source	FY 1991-92	FY 1992-93	FY 1993-94	FY 1994-95	FY 1995-96	FY 1996-97	FY 1997-98	FY 1998-99	FY 1999-2000	9 Year Total FY 1992-2000
REPLACEMENT PROJECTS											
Track Rehabilitation	U3	$6,667,500	$0	$0	$0			$0	$0	$0	$6,667,500
	U9	$0	$3,922,800	$4,332,825	$1,365,621			$7,304,000	$7,500,000	$4,880,000	$29,305,246
	T*	$1,111,250	$490,350	$541,603	$170,703			$913,000	$937,500	$610,000	$4,774,406
	L	$1,111,250	$490,350	$541,603	$170,703			$913,000	$937,500	$610,000	$4,774,406
		$8,890,000	$4,903,500	$5,416,031	$1,707,027			$9,130,000	$9,375,000	$6,100,000	$45,521,558
San Francisco	I	$4,559,930									$4,559,930
Improvements	T*	$402,345									$402,345
	L	$402,345									$402,345
		$5,364,620									$5,364,620
Maintenance	U3	$18,130,000	$8,580,000								$26,710,000
Facility	T	$8,690,000	$3,440,000								$12,130,000
	IC	$3,950,000	$26,620,000								$30,570,000
	L	$9,320,000	$4,310,000								$13,630,000
		$40,090,000	$42,950,000								$83,040,000
Station	U3		$5,951,250	$6,498,750	$5,002,500	$5,977,500	$5,850,000	$5,445,000	$3,060,000		$37,785,000
Improvements	T		$991,875	$1,083,125	$833,750	$996,250	$975,000	$907,500	$510,000		$6,297,500
	L		$991,875	$1,083,125	$833,750	$996,250	$975,000	$907,500	$510,000		$6,297,500
			$7,935,000	$8,665,000	$6,670,000	$7,970,000	$7,800,000	$7,260,000	$4,080,000		$50,380,000
Station	T	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$2,250,000
Rehabilitation	L	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$2,250,000
		$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$4,500,000
Earthquake	U9				$800,000	$800,000	$800,000				$2,400,000
Restrainers **	T				$100,000	$100,000	$100,000				$300,000
	L				$100,000	$100,000	$100,000				$300,000
					$1,000,000	$1,000,000	$1,000,000				$3,000,000
Radio	U9				$295,068						$295,068
Communication	T				$36,884						$36,884
	L				$36,884						$36,884
					$368,836						$368,836
Palo Alto Station	T		$437,500								$437,500
Aquisition (1)	L		$437,500								$437,500
			$875,000								$875,000
Locomotive	U9								$3,520,000		$3,520,000
Rebuild	T								$440,000		$440,000
	L								$440,000		$440,000
									$4,400,000		$4,400,000
Right-Of-Way	B116	$120,000,000			$0						$120,000,000
Purchase	L	$122,300,000			$0						$122,300,000
	SM(2)	$0			$12,700,000						$12,700,000
		$242,300,000			$12,700,000						$255,000,000

Figure 35. Joint Powers Board Proposed Capital Improvement Plan for PCS

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PENINSULA COMMUTE SERVICE

NINE YEAR CAPITAL IMPROVEMENT PLAN

(FY 1992 - FY 2000)

PROJECT	Funding Source	FY 1991-92	FY 1992-93	FY 1993-94	FY 1994-95	FY 1995-96	FY 1996-97	FY 1997-98	FY 1998-99	FY 1999-2000	9 Year Total FY 1992-2000
ENHANCEMENT PROJECTS											
Tower Consolidation	U9		$1,861,318								$1,861,318
Phase II @	T		$232,665								$232,665
	SP		$135,963								$135,963
	L		$96,702								$96,702
			$2,326,648								$2,326,648
Ticket Vending	U9			$3,854,316				$1,560,800			$5,415,116
Machines	T			$481,790				$195,100			$676,890
Phases II & III @	L			$481,790				$195,100			$676,890
				$4,817,896				$1,951,000			$6,768,896
Line	U3			$14,550,000	$15,000,000						$29,550,000
Electrification (3) @	T			$7,275,000	$7,500,000						$14,775,000
	L			$7,275,000	$7,500,000						$14,775,000
				$29,100,000	$30,000,000						$59,100,000
EXPANSION PROJECTS											
San Jose Multimodal	U3		$1,000,000		$7,425,000				$5,925,000		$14,350,000
Terminal	T		$500,000		$1,237,500				$987,500		$2,725,000
(Stage II & III) @	L		$500,000		$1,237,500				$987,500		$2,725,000
			$2,000,000		$9,900,000				$7,900,000		$19,800,000
San Francisco	U3			$55,000,000	$55,000,000	$52,500,000					$162,500,000
Terminal	B108			$0	$29,000,000	$0					$29,000,000
Relocation ***	L			$160,000,000	$131,000,000	$165,500,000					$456,500,000
				$215,000,000	$215,000,000	$218,000,000					$648,000,000
Centralized Traffic	U3			$300,000	$5,700,000	$6,000,000					$12,000,000
Control @	T			$150,000	$2,850,000	$3,000,000					$6,000,000
	L			$150,000	$2,850,000	$3,000,000					$6,000,000
				$600,000	$11,400,000	$12,000,000					$24,000,000
Bayshore Corridor	U3			$18,750,000	$18,750,000						$37,500,000
Service (4) @	T			$3,125,000	$3,125,000						$6,250,000
	L			$3,125,000	$3,125,000						$6,250,000
				$25,000,000	$25,000,000						$50,000,000
Dumbarton Bridge	U3			$7,500,000	$7,500,000	$6,975,000					$21,975,000
Commute Service @	T			$1,250,000	$1,250,000	$1,162,000					$3,662,000
	L			$1,250,000	$1,250,000	$1,163,000					$3,663,000
				$10,000,000	$10,000,000	$9,300,000					$29,300,000
Rolling Stock for Gilroy Extension	B116	$25,600,000									$25,600,000
Gilroy Extension	SC	$32,700,000	$3,300,000								$36,000,000

PENINSULA COMMUTE SERVICE

NINE YEAR CAPITAL IMPROVEMENT PLAN

FOOTNOTES

FUNDING SOURCES:	
U3	- UMTA Section 3
U9	- UMTA Section 9
I	- I-280 Transfer
T	- Transit Capital Improvement Program (TCI)
B108	- Rail Bonds - Proposition 108
B116	- Rail Bonds - Proposition 116
IC	- Intercity Rail - Proposition 108 and Amtrak
SC	- Santa Clara County Transit Agency
SM	- San Mateo County Transit District
L	- Local Match
SP	- Southern Pacific

NOTES:

(1) Represents match from Federal Grant.

(2) San Mateo County may pursue option to acquire Dumbarton Bridge Right-of-Way at $12.7 million.

(3) If Caltrans study proves to be cost effective, a detailed cost and funding plan will be refined in FY 1991-92.

(4) Project cost and funding plan will be refined in San Francisco Transportation Authority study.

* FY 1991-92: All or part of TCI request not approved; Caltrans will reapply for unfunded amount in FY 1992-93.

** MTC funding recommendation is contingent on refined cost estimates and project information.

*** $18 million in State funds are proposed for the FY 1992 STIP.

@ MTC funding recommendations are contingent on Downtown San Francisco Extension AA/DEIS service and capacity recommendations.

Note: This Capital Improvement Plan is subject to approval of the Peninsula Corridor Study Joint Powers Board in September 1991.

Recommendations

The PCS improvements described in this Chapter will produce increased ridership and revenue while controlling costs. With local operating support, the service will attain the 40 percent farebox ratio in the 1991/92 fiscal year. Following are the major Peninsula Commute Service recommendations for implementation over the five-year period of this Plan.

- To maintain State support, it will be necessary for the Legislature to appropriate $8.78 million as the State's share of the budgeted operating costs in the 1991/92 fiscal year.
- As provided by SB 928 (1989), Caltrans will continue to contract for operation of the service through June 30, 1993, with the operating contract being assigned to the JPB (or other local agency designated by the JPB) for Fiscal Year 1992/93. In agreement with this, Caltrans recommends that State funding for operation of the service continue to be provided in the present manner through the 1992/93 fiscal year. Such continued funding is subject to the service recovering at least 40 percent of its operating cost from service revenues as required by statute.
- Caltrans recommends that the necessary steps be taken to form the Peninsula Rail Transit District (PRTD) in conformance with the provisions of SB 2628 (1988). The PRTD should manage and operate the service and develop specific long range plans for rail transit on the Peninsula. Since the PCS is a regional service, Caltrans relationship with it should be the same as with all other regional transit agencies.

SONOMA/MARIN-BAY AREA

In 1983, in an effort to respond to the 50 percent increase in North Bay commuting expected over the next 20 years, representatives from Marin County, San Francisco, Sonoma County, 11 cities in Marin County, 7 cities in Sonoma County, the Association of Bay Area Governments, MTC, Caltrans and the North Bay transit operators formed the 28-member 101 Corridor Action Committee.

The Committee adopted a comprehensive 20-year plan on June 14, 1989, for the Highway 101 corridor in Marin and Sonoma Counties. Key elements of this plan are to:

- Implement a combination commuter rail and light rail system on the Northwestern Pacific Railroad right-of-way from Larkspur to Santa Rosa.
- Complete a continuous 52-mile high-occupancy vehicle (HOV) lane system on Highway 101 from Richardson Bay to Windsor by adding HOV lanes through central San Rafael and HOV lanes from Novato to Windsor.
- Implement high-speed catamaran ferry service to San Francisco from Larkspur and Sausalito.
- Increase transbay bus service from southern Marin County to San Francisco.
- Construct, widen and extend parallel arterials and connector roads in Marin and Sonoma Counties.
- Leave peak-hour highway capacity on the Golden Gate Bridge and Doyle Drive unchanged.

The light rail component focuses on Novato to Larkspur (Marin County) service, and the commuter rail component would serve Santa Rosa (Sonoma County) to Larkspur. Light rail costs are assigned to Marin County and commuter costs are assigned to Sonoma County. Light rail would operate on parallel tracks with 10-minute peak period headways and 15-minute off-peak headways. Commuter rail would be integrated into the light rail operation. The proposed service is summarized as follows:

Concept	Diesel-powered commuter rail service would operate from Santa Rosa to Larkspur in peak direction on single track. Trains would connect with local bus routes for feeder/distributor service, and with transbay ferry and bus services between Larkspur and San Francisco. Train stations in Sonoma County would be located at Santa Rosa, South Santa Rosa, Rohnert Park, Cotati, Penngrove, North Petaluma, Petaluma and South Petaluma.
Operations	Trains would operate southbound during morning peak period and northbound during afternoon peak period on 10- to 15-minute headways. Trains would stop at all stations in Sonoma County and at selected stations in Marin County serving major employment centers. Limited two-way service would operate during midday on 60- to 90-minute headways.

Construction	The existing single track in Sonoma County would be upgraded to permit high-speed rail passenger service, and signaling and communication systems would be improved for safety. Bypass tracks would be provided where needed for two-way midday service. Park-and-ride lots including bicycle storage facilities would be provided at each station in Sonoma County.
Equipment	"Off-the-shelf" two- and three-car European trainsets utilizing self-propelled diesel-powered vehicles would be used. Self-service fare collection would allow for one operator per trainset and minimize operating costs.
Estimated Ridership	5,000 daily passengers
Cost	• $124 million for construction, right-of-way, vehicles and design (1989 dollars). • $29 million for operating subsidies over ten years (1989 dollars).
Proposed Funding Sources	• $81 million from a sales tax in Sonoma County. • $35 million from UMTA (65 percent of vehicle cost). • $17 million from State Rail bonds for construction. • $11 million from federal funds for right-of-way purchase. • $9 million from Golden Gate Bridge tolls to subsidize transbay rail riders.
Possible Future Upgrades After 2005	• Operate more frequent rail service as demand warrants. • Double track and provide two-way peak period service. • Electrify line and construct new rail bridge over Petaluma River. • Extend service to Healdsburg.

Since the commuter rail service was proposed in 1989, funding for the project suffered a setback in November 1990 with the defeat of sales tax initiatives in Marin County (one cent) and Sonoma County (one-half cent). Implementation of commuter rail service in this corridor may also be delayed by the lack of a mutually agreeable lead agency or the formation of a joint powers board, and the uncertainty of the availability of Proposition 108 and 116 bond funds and other public funds at the federal, State and local levels. In March 1991, the California

Transportation Commission recommended that TCI funding of $635,000 be granted to Sonoma County for right-of-way acquisition of a portion of the Northwestern Pacific Railroad for future commuter service.

PLACER COUNTY-SACRAMENTO-DAVIS

Increasing population growth along the I-80 corridor in the Sacramento region has led to an awareness of the need to augment proposed intercity rail service with rail commuter service linking the faster growing suburban locations with downtown Sacramento. The Placer County Commuter Rail Feasibility Study[5] (issued in November 1990 by the Placer County Transportation Commission) defines a plan for commuter rail service between Colfax and Davis which could be implemented with capital funding potentially available under Proposition 116. It also provides preliminary estimates of potential costs, patronage and revenues for the service.

The commuter rail service would be developed in coordination with intercity Amtrak passenger rail services to be provided by the State between Placer County and Santa Clara County via Sacramento and Oakland. Proposition 116 provides for $85 million in capital funds to be expended to implement intercity rail service from Placer County to Santa Clara County "of which not more than $35 million shall be for commuter rail services between Auburn and Davis...."

The project, as defined by the feasibility study, would include the acquisition of two commuter rail train sets (plus spare rolling stock) to provide westbound service from Placer County to Sacramento in the morning peak period and eastbound service from Sacramento to Placer County in the afternoon peak period, with an extension of the service to Davis. The westbound trains, upon reaching Davis, would be turned back to Sacramento in the morning to serve commuter trips between Davis and Sacramento and for midday storage in Sacramento. The eastbound trains would initially return from Sacramento to Davis in the afternoon peak before making the return trip to Placer County via Sacramento.

Principal capital cost elements for the commuter service are $25.5 million for rolling stock and $2.7 million for stations. The estimated annual operating and maintenance costs are $1.95 million, excluding liability and right-of-way costs. These costs assume that intercity service in the Placer County-Sacramento-Oakland-San Jose corridor is implemented, with facilities being utilized by both intercity and commuter services.

Some of the major conclusions drawn from the feasibility study are as follows:

- The proposed commuter rail project as defined in the study is technically feasible, although challenging institutional issues would need to be resolved.

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[5] Placer County Commuter Rail Feasibility Study, Placer County Transportation Commission, prepared by Wilbur Smith Associates, November 1990.

- The appropriate timing for implementation of the commuter rail project would be during the Fiscal Year 1995-2000 period, following implementation by the State of upgraded intercity passenger rail services in the corridor. The same facilities would be utilized by both services.
- It should be anticipated that a substantial operating subsidy will be required to supplement fare revenues and that an assured source of funding for these costs will be needed.
- Although the logical timing for actual implementation is post Fiscal Year 1995, various initiatives would be appropriate and desirable as a follow up to this study, including the formation of a multi-jurisdictional committee to be the focus of project advocacy, early coordination with Caltrans and other public agencies, and planning for other actions leading toward implementation.

In March 1991, the California Transportation Commission recommended that the cities of Davis and Woodland be granted $25,000 in TCI funds to study proposals to establish commuter rail service between these cities.

STOCKTON-BAY AREA (VIA ALTAMONT PASS)

Proposition 116 identified the Altamont Pass for development as a commuter rail corridor from the Central Valley to the Bay Area. The proposition provides $14 million to San Joaquin County for the development of the corridor, including $300,000 for an initial economic analysis and preliminary engineering study of immediate and near-term service improvements. San Joaquin County passed a local sales tax in November 1990, which earmarks $130 million for mass transit, with $100 million specifically designated for rail capital (including rolling stock) and operations improvements. A portion of these funds will be used to match Proposition 116 funds so that a total of $600,000 is available for the initial study.

In April 1991, San Joaquin County made an immediate request for the Proposition 116 funding to do the study. To facilitate this study, the County has already begun the first phase of a program of rail station projects. These projects include an intercity rail station in Stockton (which will provide multi-directional access for both Sacramento and Bay Area traffic) and commuter rail stations in Manteca and Tracy. The County has also indicated its first priority for the study is to identify near-term improvements in the corridor which would be compatible with Amtrak's *San Joaquin* rail service improvements as identified in the the AB 971 final report (1990). The study will identify immediate needs and concerns for development of the corridor, evaluate alternative operating scenarios and capital investments for track improvements, consider joint trackage rights and right-of-way preservation and do a cost-benefit analysis.

In addition, in March 1991 the CTC recommended $200,000 in Fiscal Year 1991/92 TCI funding to develop three rail stations in San Joaquin County, including commuter stops at Manteca and Tracy.

EVALUATION OF PCS FEEDER BUS PROGRAM

Background

In September 1989, Assembly Bill 2484 (Chapter 435, Statutes of 1989) was enacted. This bill directed Caltrans to evaluate the San Francisco Peninsula rail feeder bus program which Caltrans implemented in 1988, to provide the evaluation to MTC by September 1, 1990, and to include the evaluation and MTC's comments in this Plan. This evaluation is Caltrans response. MTC advised that they concur with the overall findings presented herein.

The feeder bus program currently involves minibuses which connect with the PCS. There are presently two components: local workplace shuttle service linking both the San Mateo and Santa Clara County PCS stations with major employment centers located one to four miles away, launched in September 1988; and feeder service between the San Jose PCS station and downtown Santa Cruz, a distance of 33 miles, begun in November 1988.

Both service components were initiated to improve links to the San Francisco Bay Area's trunk rail network. The workplace shuttles were planned jointly by Caltrans and local transit districts to serve employment centers not previously reached by train feeder service, on routes where SamTrans and Santa Clara County Transit (SCCT) felt they could not operate cost-effectively.

For their first year, both service components were partly financed by a $250,000 appropriation provided by AB 1675 (Chapter 1406, Statutes of 1987) for a feeder bus demonstration program relating to the PCS. However, from the beginning Caltrans sought and received additional financial support from employers, developers and cities to run the workplace shuttles. Passenger fares provided revenue for the Santa Cruz feeder service.

The workplace shuttles are competitively bid by Caltrans, while the Santa Cruz feeder service is bid by the Santa Cruz Metropolitan Transit District under the terms of a cooperative agreement with Caltrans.

Initially, three workplace shuttle routes were operated, one each in the cities of Redwood City, Mountain View and Cupertino. A fourth route in San Carlos was added in November 1988, fifth and sixth routes in Menlo Park in November 1989, and a seventh route in Menlo Park in March 1990. Minibuses seating 21 to 25 passengers provide service during peak hours only, toward workplaces in the morning and away from workplaces in the afternoon. Four to six morning trips and four to six afternoon trips are operated per route, all timed to meet the specific trains. In sum, 66 trips are operated per weekday on the seven routes.

The Santa Cruz minibus is primarily an intercity service, rather than a commuter operation. As such, its service is provided all day, seven days per week. On weekdays, 18 trips are operated, with 16 trips on Saturday and Sunday. Frequency of service is approximately every two hours in each direction, with the bus timed to meet the trains.

No fare is charged for the workplace shuttles due to the short trip duration and expected high administrative cost of fare collection, which could absorb much of the revenue generated. Also, most shuttle passengers are new PCS riders and pay a fare on the train. By contrast, a $5 one-way fare is charged for the much longer Santa Cruz link.

Assembly Bill 2484 requests that Caltrans address four specific topics in this evaluation. These topics are, first, the cost effectiveness of the program; second, whether increased patronage of the PCS has resulted; third, whether the program can be efficiently continued or expanded; and fourth, whether competitively contracted or public operation would be more efficient and effective. Each is addressed below in the order appearing in the legislation.

Cost Effectiveness

For the workplace shuttles, cost effectiveness is measured by the combined total of shuttle-dependent train revenue[6] and private sector financial contributions as a percentage of contract cost. Only four of the seven routes have been operating for more than a year, so the discussion that follows addresses those four routes, located in San Carlos, Redwood City, Mountain View and Cupertino.

It is estimated that the combination of revenue sources will cover 47 percent of the contract cost in 1990-91, up from 32 percent two years earlier. The 47 percent is comprised of 26 percent shuttle-dependent train revenue, as reflected in a May 1990, passenger survey, and 21 percent estimated private sector contributions. (The other 53 percent is provided by several levels of government, including Caltrans 18.5 percent, Peninsula transit districts 18.5 percent, and sponsoring cities 16 percent). It should be noted that a revenue/cost figure of 47 percent exceeds the 40 percent required for existing commuter rail service by Section 14031.9(b) of the Government Code.

Inclusion of shuttle-dependent train revenue in the cost effectiveness calculation reflects the fact that there are essentially no increases in train capital and operating costs as a result of carrying these extra passengers. Seats are available on trains, and all necessary labor is already employed. Train operating costs would increase only if the feeder program were to be vastly expanded.

For the Santa Cruz service, cost effectiveness is measured principally by the service's own fare revenue. In May 1990, fares paid 125 percent of the contract cost, up from 67 percent in May 1989. Therefore, no State operating subsidy was required. Tentative survey results suggest that if train revenue contributed by the service's passengers is included, the Santa Cruz operation achieved up to 165 percent cost coverage.

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6 Excludes train revenue of passengers who used PCS before the shuttles started, except for increased trip frequencies; same ratio applied to new commuters to area.

State capital funds expended for the service included $41,000 in AB 1675 monies to buy a minibus vehicle. By accepting state funds to purchase the vehicle, the contractor is obliged to continue the service for at least five years.

Ridership and PCS Patronage

For the workplace shuttles, ridership increased 124 percent between June 1989 and June 1990, to reach 477 daily boardings. Growth on the original routes accounted for 46 percent of the increase and 54 percent was due to the addition of the three Menlo Park routes.

A May 1990, survey showed that 93 percent of passengers transfer to the PCS, and that 61 percent of passenger trips on the shuttles represent new rides on the PCS, not counting passengers who didn't commute to the area before the shuttle started. Like PCS riders in general, most passengers use the shuttles by choice. The survey showed that 62 percent had a car available to them that day, and 62 percent have at least a four-year college degree.

For the Santa Cruz service, ridership increased 109 percent between May 1989 and May 1990, to reach 81 daily boardings. A tentative August 1990 survey showed that up to 63 percent of passengers transfer to the PCS and 8 percent to Amtrak.

Recommendations for Continuation and Expansion

After 18 to 21 months of operation, the original workplace shuttles and the Santa Cruz minibus have built healthy ridership bases and become highly cost-effective. The workplace shuttles are 81 percent funded from non-state sources and 47 percent funded from non-government sources. The Santa Cruz service no longer requires any taxpayer funds.

Based on these results, and assuming the same level of private sector and fare support, Caltrans recommends the continuation of existing shuttle services and their modest expansion where warranted by ridership projections.

Two cautions are in order. First, a several fold increase in shuttle ridership could begin to cause increases in train operating costs, and possibly in capital requirements. At that time, it would no longer be appropriate to include all shuttle-dependent train revenue as shuttle revenue. Second, new shuttle proposals must have their projected ridership carefully scrutinized. Some routes have had considerably better patronage than others.

Effective PCS feeder bus service is clearly needed, since a recent study of Peninsula auto commuters indicated that inadequate bus connections are a prime reason why respondents don't take the train.[7] Connecting service must be reliable, swift and oriented to meeting trains, or potential transit users will drive instead.

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[7] Crain and Associates, CalTrain Corridor Automobile Commuter Survey: Final Report. Menlo Park, CA; May 1990 (sponsored by Caltrans).

Competitive Contracting Compared to Public Operation

Caltrans has found operation of bus shuttles to be more cost effective than SamTrans or SCCT have. The three main reasons for this are the Caltrans and Peninsula cities' efforts to capture private sector financial support; the inclusion of shuttle-dependent train revenue in the calculation of shuttle revenue; and the fact that the service is contracted.

In the Peninsula setting, service contracting appears to reduce costs. According to recent Federal data, SCCT's 1988 cost of bus operation was $74 per revenue vehicle hour, while MUNI's cost was $71 (SamTrans operates a mixture of in-house and contract service, so it was not directly comparable).[8] It should be noted that these figures reflect complete operating costs, including the expense of service planning and monitoring. By contrast, the 1988 PCS workplace shuttle rate of $42 per comparable vehicle hour is only a contract cost. On the other hand, the contract rate includes the cost of vehicle lease leading to purchase, a capital expense which may not be included in the transit district figures. Also, the PCS operation is a small scale, peak-period-only service which was initially contracted on a suboptimal one year basis. The transit district figures include considerable all day service and other potential economies of scale present in a large enterprise.

Extensive cost comparisons of competitively contracted and publicly provided bus service are scarce, due to the recent nature of the contracting activity. However, a study of five year cost trends in the two sectors showed that contract costs declined 5.7 percent per year in real terms, while public costs increased 1.7 percent.[9]

Caltrans believes that both public and private operators can provide effective train feeder bus services. The reluctance of public transit districts to start new feeders to expanding employment areas caused Caltrans to become involved. The general success of its feeder bus program has now led Caltrans to contract for continued operation of at least six routes through June 30, 1992. Elsewhere along the PCS line, employers and developers have initiated their own shuttles. These have been very successful at specific locations, notably in South San Francisco.

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[8] U.S. Department of Transportation, Urban Mass Transportation Administration, National Urban Mass Transportation Statistics: 1988, Section 15 Annual Report. Washington: December 1989.

[9] Teal, Roger, Issues Raised By Competitive Contracting of Bus Transit In the U.S.A., in PTI Journal 4:2, March/April 1990

Chapter X - Southern California Commuter Services

LOS ANGELES BASIN

Background

The following events demonstrate the evolution of commuter rail development in the Los Angeles Basin from individual corridor studies to a comprehensive service implementation program:

- April 30, 1990 - The first commuter rail service in Southern California was inaugurated with a weekday round-trip between Los Angeles and San Juan Capistrano.
- May 25, 1990 - Senate Bill 1402 was enacted into law. This bill directed the local transportation commissions in the Los Angeles Basin to develop an implementation program for commuter rail service by December 1, 1990.
- October 12, 1990 - The Los Angeles County Transportation Commission (LACTC) announced its purchase from the Southern Pacific Transportation Company (SP) of 175 miles of right-of-way for near-term commuter rail service and long-term preservation purposes. Both purchase and long-term access negotiations continue between most Southern California county transportation commissions and the Atchison, Topeka and Santa Fe Railway Company (SF). The use of SF tracks is highly preferred on many planned commuter rail routes.
- December 1990 to March 1991 - Three critical studies were issued defining existing and needed infrastructure and services for major portions of a commuter rail network in the Los Angeles Basin.
- December 1, 1990 - In response to SB 1402, the Southern California Commuter Rail Coordinating Council (SCCRCC) issued its Regional System Plan draft, outlining a comprehensive program for commuter rail development in the Los Angeles Basin. The final 1991 Regional System Plan was issued June 14, 1991.
- June 1991 - Agreement was announced for the proposed regional Joint Powers Authority (JPA) to be called the Southern California Regional Rail Authority (SCRRA). All member county transportation commissions are expected to ratify its charter by the scheduled September board meeting of the Interim JPA and the SCCRCC.

Each of these developments is reviewed in turn in the following sections of this Chapter.

Orange County Commuter Rail

To meet demands for commuter rail service, the Orange County Transportation Commission (OCTC) [now the Orange County Transportation Authority (OCTA)]

inaugurated Orange County Commuter Rail (OCCR) on April 30, 1990, providing weekday only commuter trains between San Juan Capistrano and Los Angeles.

OCCR carries weekday rail commuters from San Juan Capistrano in south Orange County to downtown Los Angeles. The service, which is operated by Amtrak and sponsored by OCTA, leaves San Juan Capistrano at 6:00 a.m. and arrives in Los Angeles at 7:25 a.m. The train makes intermediate stops at Irvine, Santa Ana, Anaheim and Fullerton. The evening train leaves Los Angeles at 5:40 p.m. and arrives in San Juan Capistrano at 7:07 p.m. The service does not operate on weekends or holidays.

All Amtrak tickets are valid on OCCR. Additionally, an OCCR discount monthly pass is available at 30 percent less than Amtrak's lowest fare. The lower fares have helped attract many new train riders to the service. Ridership has more than doubled since service began on April 30, 1990, to an average of over 575 per day. Also, Amtrak honors (upon payment of a surcharge) OCCR's monthly pass on all Amtrak trains in the Los Angeles-San Juan Capistrano territory. This cross-honoring helps build commuter ridership on OCCR by providing alternative schedules for mid-day and evening trips in addition to the OCCR peak-hour trips.

Senate Bill 1402

On May 25, 1990, Senate Bill 1402 (Chapter 114 of the Statutes of 1990) was enacted. This bill required the transportation commissions for the Counties of Los Angeles, Orange, Riverside and San Bernardino to develop an implementation Plan for regional commuter rail service by December 1, 1990. The Plan is to be revised every two years and subsequent revisions will include both rail and bus service. It was developed in consultation with the Southern California Association of Governments (SCAG), the California Transportation Commission (CTC), the Los Angeles-San Diego Rail Corridor Agency, the Ventura County Transportation Commission and the South Coast Air Quality Management District. According to the Bill, this Plan is to serve as the basis for a coordinated application of funds allocated by the CTC. (See the "Regional System Plan" section below in this Chapter for a summary of the Regional Plan.)

Southern Pacific Right-of-Way Acquisition

On October 12, 1990, the LACTC and the SP announced an agreement for LACTC to purchase 175 miles of SP rights-of-way. Most of the rights-of-way will be used for commuter rail with the remainder preserved for future use.

Approximately $245 million of the $450 million purchase price will pay for the railroad corridors and $205 million will be used to purchase potential station sites, maintenance yards and trackage rights, for an average cost of $1.3 million/mile.

SP will provide rent-free use of 69 miles of its main lines running between Los Angeles and Moorpark/Saugus. These lines will be used for commuter rail service while exclusive passenger rail lines are being planned and constructed on

the purchased right-of-way. Freight trains will be integrated into the passenger train schedules.

Besides actual rights-of-way, many other parcels of SP land along the routes are included in the sale and will be used as station and parking sites, train yards and other transit facilities.

The routes involved are:

- A 58-mile combination of SP's State Street line and Baldwin Park Branch, offering an exclusive rail transit corridor between Los Angeles and San Bernardino, and including a branch to Azusa (efforts continue to use the SF tracks between Claremont and San Bernardino).
- The 14-mile Santa Monica Branch starting at the Blue Line in downtown Los Angeles, running along Exposition Boulevard past the Coliseum/Sports Arena complex and the University of Southern California, then running west to Santa Monica.
- SP's 12.5 mile West Santa Ana Branch, extending from Paramount to Stanton in Orange County. This could connect with Orange County Transit District routes to complete a corridor to Santa Ana, and could possibly connect to the Green Line running along the Glen Anderson/Century Freeway.
- The 21-mile Burbank Branch in the San Fernando Valley, running via Canoga Park to Chatsworth along Victory and Chandler Boulevards.
- An additional route farther north in the San Fernando Valley consisting of a 40-foot strip of right-of-way adjacent to SP's main line Coast Route, stretching 46 miles from downtown Los Angeles to Moorpark, on which tracks could be laid later for a commuter rail service.
- A similar strip of right-of-way alongside SP's Valley Line, where it branches off the Coast Line at Burbank Junction for 23 miles to Saugus.
- The 1.6 miles of unused railroad right-of-way, which is part of SP's old Alla Branch running between Sepulveda Boulevard and Braddock Avenue in Culver City and West Los Angeles.

Santa Fe Right-of-Way Acquisition

Negotiations continue between the county transportation commissions and the Santa Fe Railway (SF) for both the purchase of and access to SF tracks designated for commuter rail service. However, the parties remain substantially apart on the price issue. Route segments which will be affected are Claremont to San Bernardino, San Bernardino to Riverside, Riverside to Fullerton, Riverside to Irvine and Fullerton to San Diego.

Infrastructure and Service Studies

During 1990, work proceeded on three critical studies needed to define existing and needed infrastructure and services for major portions of a commuter rail network in the Los Angeles Basin. The studies also focused on the relationship of the commuter rail network to intercity services using the same facilities.

congestion in the Route 91 corridor, and also produce one of the first regional rail systems designed to fit a metropolitan area with multiple transportation hubs. Future extensions of this system may expand service from Riverside to Hemet and from San Bernardino to Redlands. In total, rail service is planned for 412 route miles serving 50 stations over six basic service routes.

Figure 10 in the Key Maps section depicts the commuter rail routes discussed in the Regional Plan. Figure 36 is a summary of key service, operational, ridership and cost data for each of the routes discussed in the Regional Plan.

Capital costs required for the start-up level of commuter rail services on all lines have been estimated at $644 million in inflated dollars, not including the substantial costs of purchasing right-of-way and track. Right-of-way costs were not included in the original capital cost studies because such purchases were still being negotiated. Figures 37 and 38 illustrate estimated capital needs and operating costs distributed by route.

Operating costs for the individual commuter trains have been estimated by the various county transportation commissions at between $19 and $28 million at service start-up, with operating cost estimates ranging from $15 to $30 per train mile. While ridership has been estimated for each of the individual routes, (ranging from 1,500 daily one-way trips for the Hemet to Riverside route to about 4,500 for the San Bernardino and Oceanside routes) these estimates have not been used to forecast farebox revenues due to the preliminary nature of the estimates. In the Regional Plan, farebox revenues were assumed to be a steeply rising percentage of operating costs, rising from 10 to 40 percent between the first and third year of operation. SCAG is currently developing a regional commuter rail patronage forecasting model, expected to be operational in the early 1990's.

The Regional Plan also proposed the concept of using commuter rail stations as hubs for local transit operations to facilitate connections, and the coordination of schedules, fares, ticketing and passenger information services between commuter rail and intercity bus and rail operators. The review of regional impact by SCAG concluded that regional rail services may increase the use of public transit immediately around rail stations. The construction of adequate park-and-ride lots at stations in residential areas and the development of effective distribution systems at destinations are strongly recommended.

Funding anticipated for commuter rail capital investment and operations is not completely secure. Capital funds are partially contingent upon voter approval of additional bond measures in 1992 and 1994.

SOUTHERN CALIFORNIA COMMUTER RAIL SERVICE ROUTES

from Southern California Commuter Rail Regional System Plan Report #

Route Origin/Destination (Spur line O/D)	Track Segments (Current Railroad Owner)	Miles	Startup Ridership Forecasts (1992 - 1995) In Round Trips	Service Frequency at Projected Startup In Round Trips	Est. Startup Date	Number of Stations	Startup Capital Costs ** (in Millions)
San Bernardino/LA, Northern Route	(SF/SP) SF Foothill Line from SBd to Claremont via Fontana; SP Baldwin Park Branch from Claremont to LA via Covina & El Monte	57	2,245	5	1992	12	$174 *
Santa Clarita/LA	(SP) Saugus Line via San Fernando & Burbank	35	1,344	3	1992	5	$37 *
Ventura/LA	(SP) Coast Mainline via Chatsworth, Van Nuys & Burbank	47	1,699	4	1992	7	$87 *
Oceanside/LA	(SF) San Diegan Route	87	2,235	1 operating now 9 in 1993	1993	14	$122 (Oceanside to Fullerton) $78 (Fullerton to LA - shared between regional rail routes)
Riverside/Irvine, with proposed through service to San Bernardino	(SF) SBd Subdivision Transcontinental Mainline from SBd to Atwood via Riverside & Corona, then south via Orange & Santa Ana	49	1,589	4	1995 ##	12	$122
Riverside/LA, with proposed through service to San Bernardino	(SF) SBd Subdivision Transcontinental Mainline via Riverside, Corona, Atwood, Fullerton, Norwalk & Commerce	63	1,800 Including Hemet Spur Service	2 includes proposed Hemet through service	1995 ##	13	$160 (Riverside to Fullerton) $78 (Fullerton to LA - shared between regional rail routes)
Hemet/Riverside, with proposed through service to LA	(SF) San Jacinto Branch via Ryan Airport and the University of California at Riverside	40	753	2	1995	9	$54

All routes share additional startup capital costs of $53 million.

SBd = San Bernardino
LA = Los Angeles
S = Santa Fe
SP = Southern Pacific

Ridership forecasts are based upon different fare assumptions for different county transportation commissions.

Some service may be available prior to 1995 to mitigate congestion from Route 91 reconstruction.

* Includes all costs except right-of-way purchases

** Includes shared facilities

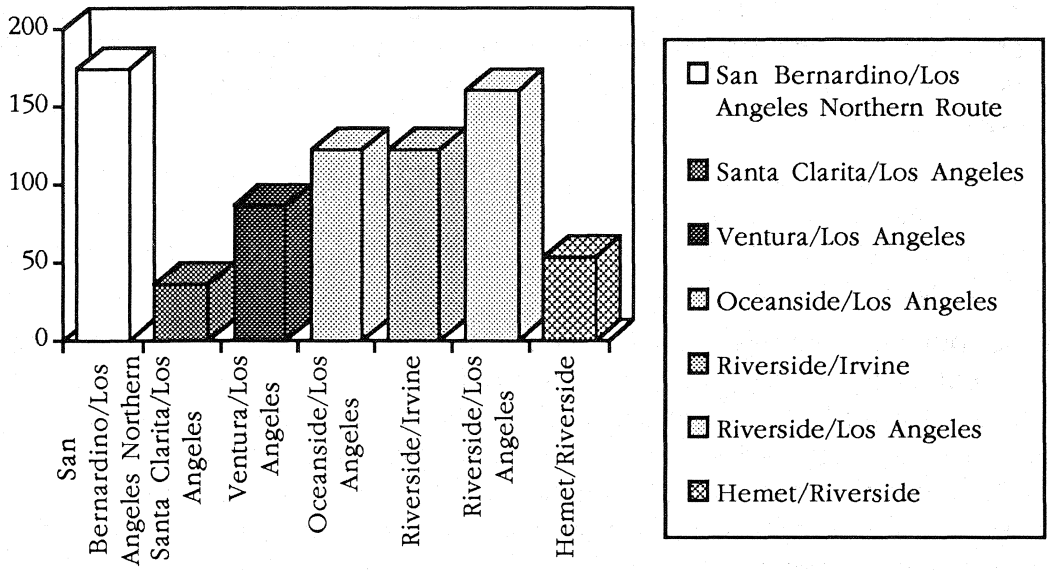

Figure 37. Start-up Capital Requirements by Commuter Service Route

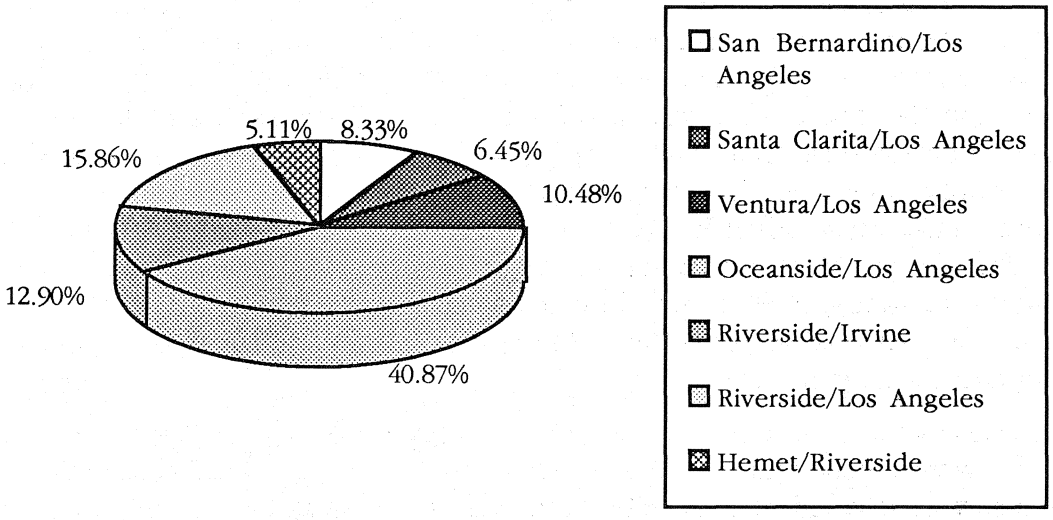

Figure 38. Operating Cost Distribution by Commuter Service Route

The LACTC submitted an order for commuter rail cars to UTDC, Inc., in January 1991. Other county commissions are also expected to do so soon. To be eligible for Proposition 116 funding these car purchases must meet the "California Car" performance specifications developed by Caltrans. Proposition 116 funding requests will be processed by the California Transportation Commission, under the Commission's guidelines issued in December 1990.

In November 1990 voters in Orange and Los Angeles counties passed 1/2 percent tax measures to aid transportation. This doubled the existing voter-approved transportation sales surtax in Los Angeles County to a full one percent. Riverside and San Bernardino counties had previously enacted transportation sales taxes.

Public support for commuter rail service in Southern California remains strong. Unprecedented capital support has been provided by the passage of Propositions 108 and 116, but much work remains to be done. The available capital funds must be distributed not only among multiple service routes and jurisdictions, but also among the competing capital needs of track, signal, and safety system improvements, rail car purchase or lease expenses and right-of-way purchase or lease expenses. Capital funding needs not fulfilled at the State level must be met at the local level for commuter rail services to begin. Regardless of the sum of capital investment funds that become available or are invested, the operation of regional rail services will require substantial ongoing local and regional financial support.

Formation of Joint Powers Authority

An agreement on the structure of a new regional rail Joint Powers Authority (JPA) was announced between all member county transportation commissions in June 1991. Formal ratification by each transportation commission board is expected before the scheduled September board meeting of the Interim JPA and the Southern California Commuter Rail Coordinating Council (SCCRCC). These agencies coordinate regional rail development until the official formation of the new Authority. Once officially formed, the new authority will be called the Southern California Regional Rail Authority (SCRRA). While its board will be responsible for decisions regarding facilities management and the administration of regional rail funds, staff work will be conducted by the individual county commissions. The actual operation of the system will be contracted out through a competitive bidding process.

The selection of a contractor to operate the system is well under way. Operator proposals were received and evaluated early in 1991. A "short list" of final candidates was selected by May. Final candidates are: Amtrak, UTDC Transit Service, Inc. and ATE Management & Service Company/James R. Stoetzel and Associates. The final selection process will begin in August 1991.

Transit Capital Improvement Projects

Figure 39 lists the commuter rail related TCI projects for the Los Angeles Basin for the 1990/91 and 1991/92 fiscal years.

Los Angeles Basin TCI Commuter Rail Projects

Applicant	Summary Project Description	Amount Funded (TP&D)	Authorization
Fiscal Year 1990/91			
SANBAG	Capital improvements and rolling stock for Los Angeles to San Bernardino commuter rail service	$3,750,000	On CTC list of approved projects
Riverside County Transp. Commission	Preliminary engineering and environmental assessment for commuter rail service between Riverside and Irvine	$1,000,000	CTC authorized Caltrans to allocate (February 21, 1991)
	TOTAL	**$3,750,000**	
Fiscal Year 1991/92			
San Bernardino County Transp. Commission	Purchase locomotives and cars for Los Angeles Los Angeles-San Bernardino commuter rail service	$3,750,000	
LACTC	Design and construct 14 stations for commuter rail system	$3,277,221	FY 1991/92 Funding recommended by CTC in March 1991, but subject to change based upon the level of funding provided in the State Budget for Fiscal Year 1991/92
Riverside County Transp. Commission	Purchase and rehibilitate locomotives and cars for Riverside-Orange County commuter rail service	$8,850,000	
City of Orange	Plan and construct commuter rail/intermodal station	$55,000	
	TOTAL	**$15,932,221**	

Figure 39. TCI Projects for Los Angeles Basin Commuter Rail Routes

1990 State Transportation Improvement Program

Figure 40 lists the Los Angeles Basin commuter rail related projects which were included by the CTC in the 1990 STIP for rail bond funding.

1990 STIP PROJECTS FOR LOS ANGELES BASIN COMMUTER RAIL ROUTES

Project	Fiscal Year	STIP Allocation
LOS ANGELES COUNTY		
Acquire right-of-way	90-91	$175,000,000
Glendale Transportation Center	90-91	$6,179,000
Ventura Corridor improvements and rolling stock	90-91	$35,100,000
Los Angeles Union Station improvements and facility repair	90-91	$20,600,000
Fullerton-Redondo Junction improvements	90-91	$5,000,000
San Bernardino Corridor improvements and rolling stock	91-92	$62,800,000
Pasadena Transportation Center	93-94	$6,600,000
Santa Clara Corridor improvements and rolling stock	93-94	$16,200,000
ORANGE COUNTY		
Orange-Riverside Corridor studies	90-91	$500,000
Acquire right-of-way	92-93	$25,000,000
Orange-Los Angeles Corridor improvements and rolling stock	92-93	$15,299,000
RIVERSIDE COUNTY		
Acquire right-of-way	90-91	$50,000,000
SAN BERNARDINO COUNTY		
Acquire right-of-way	90-91	$50,000,000

Figure 40. 1990 STIP Projects for Los Angeles Basin Commuter Rail Routes

OCEANSIDE-SAN DIEGO

Background

In 1987 the Los Angeles-San Diego State Rail Corridor Study recommended the implementation of a commuter rail service from Oceanside to San Diego, servicing nine intermediate stations. In November of the same year, the voters of San Diego County approved Proposition A, a twenty year 1/2 cent sales tax for transportation improvements. Funding for two commuter rail services operating on Santa Fe Railway trackage was included as part of the proposition. The first is the Coastal Corridor commuter rail service between Oceanside and San Diego, which is reviewed here. The second is the Inland Corridor between Oceanside and Escondido, which is being developed as a light rail line.

Service

The Oceanside-San Diego commuter rail project is being developed jointly by the North San Diego County Transit Development Board (NSDCTDB) and the Metropolitan Transit Development Board (MTDB), with NSDCTDB acting as the lead agency. Figure 11 in the Key Maps section illustrates this route. The service is projected to begin operation within three years after an agreement for access to the railroad is completed. Initially, the service will consist of four trips southbound in the morning peak and four trips northbound in the evening peak. A single trip reverse commute, starting in San Diego in the morning and Oceanside in the evening will also be offered.

Trains will service a total of nine stations. Five of the stations are in the north county area: Oceanside, Carlsbad Village, Poinsettia Lane (in the City of Carlsbad), Encinitas and Solana Beach. Four stations are in the City of San Diego: Sorrento Valley, Miramar Road, Old Town and Centre City San Diego. Passengers will be able to transfer to Amtrak at Oceanside, Solana Beach and Centre City San Diego. North County Transit District buses will connect with the trains at all north county stations, and San Diego Transit buses will serve all the stations in the City of San Diego. Two special event stations are also under development at the Del Mar Fairgrounds/Thoroughbred Race Track and the San Diego Convention Center.

Key elements of the proposed service are listed below:

Start-up date	2 to 3 years after access to right-of-way has been obtained
Project length	42 miles using existing Santa Fe tracks
Estimated travel time	55 to 60 minutes
Number of stations	Nine
Service level	4 trips southbound in the morning peak and 4 trips northbound in the evening peak, plus one reverse commute

Equipment	5 train sets (push/pull, diesel locomotives, bi-level cars)
Start-up Patronage	3,800 daily one-way trips
1995 Patronage	4,400 daily one-way trips
2000 Patronage	5,400 daily one-way trips
Fares	Average one-way of $2.72 (1989 dollars)
Fare Recovery	76 percent
Capital costs	Approximately $67-70 million (1989 dollars)
Operating costs	$3,225,000 per year (1989 dollars)
Operating subsidy	$750,000 per year (1989 dollars)

Right-of-Way Acquisition

The service will operate on tracks currently owned by the Santa Fe Railway. NSDCTDB has joined with other Southern California transit agencies in negotiations with the Santa Fe for the use of these tracks. However, the parties remain substantially apart on the price issue.

Fares and Schedules

Fares are being developed to coordinate with the San Diego County regional fare structure. NSDCTDB is working with Caltrans and Amtrak through the LOSSAN Rail Corridor Agency to develop schedules that will complement the existing Amtrak service. Schedules are also being integrated with the proposed Oceanside-Los Angeles commuter service, to be implemented by the Orange County Transportation Authority.

Right-of-Way Improvements

Right-of-way improvements include rehabilitation of the existing trackage and sidings. This work will commence after an agreement for access to the railroad has been completed. New sidings are programmed to be constructed at Del Mar and Encinitas. The existing siding at Ponto (at the location of the Poinsettia station) is to be extended north. Double tracking between Sorrento and Old Town is programmed, with the existing double track from Miramar Road to Elvira being upgraded. As part of the MTDB's Old Town light rail extension, the trackage between Old Town and Centre City San Diego will be upgraded for 60 MPH operation. The estimated cost for these projects totals $66.4 million, to be funded from Propositions 108 and 116 and local funds.

Rolling Stock

Equipment needs at start up will be five locomotives and twenty bi-level commuter coaches. The equipment will be fully compatible with other commuter equipment operated in the Southern California region and Amtrak. The cost of the equipment purchase is approximately $40 million. NSDCTDB will fund this purchase from local and Proposition 116 funds.

Stations

All station sites have been identified. Design work is currently proceeding for these stations, which will feature 8-inch above-top-of-rail platforms, handicapped and bicycle accessibility and bus and/or trolley transfers. Each station is being developed with the cooperation of the local city or community involved. The station development costs are funded, depending upon location, by a combination of private, local and State funds.

1990 State Transportation Improvement Program

Figure 41 lists the Oceanside-San Diego commuter rail projects which were included by the CTC in the 1990 STIP for rail bond funding.

1990 STIP PROJECTS FOR THE
OCEANSIDE-SAN DIEGO COMMUTER RAIL ROUTE

Project	Fiscal Year	STIP Allocation
Acquire Right of Way	90-91	$20,000,000
Signal System Improvements	90-91	$2,000,000
Solana Beach Station	90-91	$4,035,000
Track, Signal and Crossing Improvements	90-91	$4,100,000
Track and Grade Improvements	91-92	$5,410,000
Track and Grade Improvements	92-93	$2,499,000
Straighten Curve	93-94	$1,400,000
Track Improvements	94-95	$3,640,000
Track Improvements	95-96	$990,000
Acquire Rolling Stock	96-97	$6,253,000

Figure 41. 1990 STIP Projects for the Oceanside-San Diego Commuter Rail Route

Chapter XI - Operating Financial Plans and Tables

BACKGROUND

The services included in the financial tables in this Chapter will require the State to budget and appropriate a total of $89.9 million for operations over the five-year period from 1991/92 through 1995/96. This reflects:

- The anticipated discontinuance of the State's direct reimbursement of its share of the operating loss of the Peninsula Commute Service (PCS) after the expiration of the Caltrans operating agreement on June 30, 1993.
- Inclusion of budget needs for the following new Amtrak services beginning (for planning purposes) in the years shown:
  - (FY 1991/92) Sacramento-Oakland-San Jose corridor service (Stage 1 - three round trips).
  - (FY 1991/92) Sacramento extension of three *San Joaquin* route trains.
  - (FY 1992/93) Ninth and tenth *San Diegan* round trips between Los Angeles and San Diego.
  - (FY 1992/93) Third Santa Barbara extension of the *San Diegan* route.
  - (FY 1992/93) San Luis Obispo extension of the *San Diegan* route.
  - (FY 1992/93) Fourth *San Joaquin* round trip (including Sacramento extension).
  - (FY 1992/93) Los Angeles extension of *San Joaquin* Trains 710-711.
  - (FY 1993/94) Increased Sacramento-Oakland-San Jose corridor service (Stage 2 - six round trips), including new Placer County service.
  - (FY 1993/94) Fourth Santa Barbara extension of the *San Diegan* route.

Capital expenditures necessary to maintain and improve the intercity services are not included; they are described in the 1990 Intercity Rail Program (IRP) in Chapter VII. Capital improvements for Southern California commuter services are summarized in Chapter X. PCS capital improvements are shown in the Peninsula Corridor Study Joint Powers Board's Capital Improvement Plan, which is included in Chapter IX.

The State budget and appropriation levels required over the next five years for operation of the services described above (including Amtrak connecting and feeder buses) are summarized in Table I at the end of this chapter. The appropriation for the current (1990/91) Fiscal Year is also included in this table. The budget levels for intercity and commuter service operations are detailed in Tables II and III, respectively.

Table IV, entitled 1992 Fund Estimate for the Transportation Planning and Development (TP&D) Account, compares estimated TP&D Account revenues with estimated expenditures.

FUNDING AVAILABILITY

Transportation Planning and Development (TP&D) Account

The TP&D Account is the primary source of State funds for financing intercity rail services operations. The Account receives most of its revenues from the sales tax on diesel fuel, but also receives a portion of the sales tax on gasoline. Revenues received by the Account may vary greatly from year to year depending upon the levels of fuel prices and fuel consumption. Estimated TP&D Account revenues and expenditures during the period of this Plan are shown in the 1992 Fund Estimate for the TP&D Account, which appears as Table IV.

Subject to the annual budget process, TP&D Account funds are appropriated by the Legislature for the administrative costs of transportation planning and public transportation programs. These programs include: Caltrans rail, mass transportation and planning support; California Transportation Commission staff support; Public Utilities Commission staff support and the Institute of Transportation Studies (University of California).

Fifty percent of the remaining TP&D funds are appropriated to Caltrans for operation of intercity rail service (Amtrak) and the Peninsula Commute Service; for the Transit Capital Improvement (TCI) Program and for other transportation programs authorized by law, such as ridesharing.

The other fifty percent of the remaining TP&D Account funds are appropriated by the Legislature for State Transit Assistance (STA) purposes. Such funds are allocated Statewide by formula to the Regional Transportation Planning Agencies (RTPA) in each area of the State. Use of STA funds is restricted to public transportation purposes (which may include rail projects). Each RTPA is responsible for determining how the funds will be used.

Local Sources of Funding

In addition to STA (discussed above), the following primary sources of local funding are available: The Local Transportation Fund (LTF) made available by the Transportation Development Act (these funds are also known as "TDA Funds"), local sales tax revenues and redevelopment funds.

Local Transportation Fund: The principal source of local funding for mass transportation programs in California is the Local Transportation Fund. This fund was created by the Transportation Development Act (TDA), SB 325, Chapter 1400, Statutes of 1971. The TDA, which has been amended several times, has become the financial backbone for transit funding. LTF revenues are generated by the local

1/4 percent sales tax for transportation purposes. In Fiscal Year 1989/90, LTF revenues totaled 704.8 million Statewide.

The primary use of the LTF is to support public mass transit. However, small allocations of the funds are used to finance RTPA's and county transportation commissions, as well as (under certain conditions) streets and roads in rural areas. The TDA statute established nine priorities for the expenditure of LTF revenues. The allocation of funds must be made in accordance with these priorities. Amendments to the act permit TDA funds to be used to support commuter rail services. Passage of AB 3332 (Chapter 914, Statutes of 1988), clarified that LTF revenues may also be used for intercity rail operations and capital improvements. In addition, AB 3332 made rail passenger service one of the higher priorities for LTF revenues. As a result, the LTF is a potential, but as yet untapped, source of funding for Amtrak services.

Local Sales Taxes: Several counties in California have enacted local 1/2 percent sales taxes for transportation purposes. Four Bay Area Counties (Alameda, Contra Costa, San Mateo and Santa Clara) have enacted two separate 1/2 percent sales taxes. Los Angeles County voters approved a second 1/2 percent sales tax in November 1990. Orange County voters approved their first 1/2 percent sales tax at that time.

Each individual sales tax has different restrictions and a different distribution of revenues. In several cases, revenues support a specific transit district. For example, the BART tax in Alameda, Contra Costa and San Francisco Counties, and other taxes in San Mateo, Santa Clara and Santa Cruz Counties. The Los Angeles County tax is restricted to public transportation, although there are three different categories of service which receive shares of the revenue. Several of the sales taxes are for a combination of highway and transit projects (Riverside, San Diego, Sacramento, and the second tax in San Mateo and Alameda). In some cases, the tax is for highway purposes only (the second tax in Santa Clara).

Sales tax revenues have been used for commuter rail improvements in Santa Clara and San Mateo Counties. The San Diego tax expenditure plan specifically included rail transit between Oceanside and San Diego, as well as between Escondido and Oceanside. It would also be possible to use a portion of the Los Angeles County sales tax revenue which is distributed to local communities to make improvements in rail passenger service.

Redevelopment Funds and Private Contributions: Redevelopment funds and contributions from private beneficiaries have been used by local governments in the LOSSAN Corridor to finance the construction of stations and related parking facilities. The redevelopment process can be an effective mechanism for raising revenue for rail passenger related projects, especially station projects, in urban areas. The major restriction on redevelopment funds is that they must be used in an area which qualifies for redevelopment.

Federal Funding

State supported Amtrak services in California (operated under Section 403(b) of the Rail Passenger Service Act) are funded in part by Amtrak when their operating costs exceed generated revenues. Generally, the State absorbs 65 percent of the loss, and Amtrak covers the remaining 35 percent. Amtrak uses its Federal support funds ($605 million systemwide in Amtrak Fiscal Year 1990) to help cover its share of such losses. This Federal support also helps cover Amtrak's losses on basic system trains and 403(b) services outside of California. The Federal support received by Amtrak supplements Amtrak's other revenue sources ($1.3 billion in Amtrak Fiscal Year 1990), which include revenues from ticket sales, food and beverage sales, handling of mail and express, State 403(b) payments, contracted commuter service payments, real estate income, and car maintenance and construction for others at Amtrak's Beech Grove, Indiana car facility. In addition to operating funds, Federal support also provided Amtrak with an $84 million capital budget in Fiscal Year 1990.

Although additional Federal funds (above and beyond Amtrak's regular Federal support funds) have been made available for direct support of certain intercity rail upgrade projects (such as the Northeast Corridor Improvement Project), no direct Federal funding has ever been appropriated to a California intercity rail project.

The Plan assumes that the Amtrak system will continue to be funded at the Federal level. Congressional and public support for rail passenger service has remained strong. For the first time in seven years, the Administration has recommended significant funding for Amtrak in its 1992 fiscal year budget, including $150 million for new capital investment and $320 million for operations.

Table I. Summary of State Funding for Rail Passenger Operations

SUMMARY OF STATE FUNDING FOR RAIL PASSENGER OPERATIONS (DOLLARS IN MILLIONS)			
Fiscal Year	Intercity Operations	Peninsula Commute Service Operations	Total
1990/91	7.1	8.8	15.9
1991/92	9.7	8.8	18.4
1992/93	13.5	9.2	22.7
1993/94	15.5	--	15.5
1994/95	16.2	--	16.2
1995/96	17.0	--	17.0
Five Year Totals FY 91-92/95-96	71.9	18.0	89.9

Table II. Intercity Rail Passenger Operations

INTERCITY RAIL PASSENGER OPERATIONS (DOLLARS IN MILLIONS)			
Route and Fiscal Year	State Funding For Intercity Operations	State Support	
		State Operations (Administration)	Marketing
1990/91 APPROPRIATION			
Santa Barbara-San Diego	1.52	0.48	1.01
Oakland-Bakersfield	5.58	0.65	1.13
Non-Route Specific	--	0.23	--
1990/91 Total	7.10	1.13	2.14
1991/92 BUDGET			
Santa Barbara-San Diego	1.54	0.86	1.01
Oakland-Bakersfield	6.39	0.96	1.42
Sacramento/San Jose	1.74	0.26	0.71
Non-Route Specific	--	0.30	--
1991/92 Total	9.67	2.38	3.14
1992/93 PROPOSED			
Santa Barbara-San Diego	3.09		
Oakland-Bakersfield	8.63		
Sacramento/San Jose	1.82		
1992/93 Total	13.54		
1993/94 PROPOSED			
Santa Barbara-San Diego	3.38		
Oakland-Bakersfield	9.34		
Placer/Sacramento/San Jose	2.77		
1993/94 Total	15.49		
1994/95 PROPOSED			
Santa Barbara-San Diego	3.54		
Oakland-Bakersfield	9.79		
Placer/Sacramento/San Jose	2.90		
1994/95 Total	16.23		
1995/96 PROPOSED			
Santa Barbara-San Diego	3.71		
Oakland-Bakersfield	10.26		
Placer/Sacramento/San Jose	3.04		
1995/96 Total	17.01		
FIVE YEAR TOTALS 1991-92 THROUGH 1995-96			
Santa Barbara-San Diego	15.26		
Oakland-Bakersfield	44.41		
Placer/Sacramento/San Jose	12.27		
Five Year Total	71.94		

Table III. Peninsula Commute Service Operations

PENINSULA COMMUTE SERVICE OPERATIONS (DOLLARS IN MILLIONS)					
	Source of Funds			State Support	
Fiscal Year	UMTA	Local	State	State Operations (Administration)	Marketing
1990/91 APPROPRIATION	1.13	9.01	8.78	1.18	0.63 *
1991/92 BUDGET	1.13	9.01	8.78	1.24	0.63 *
1992/93 PROPOSED	1.13	9.44	9.20		
TWO YEAR TOTALS FY 1991-92 and 92-93	2.26	18.45	17.98		

* Plus local agencies' contribution of $60,000.

July 1991
CALTRANS
BUDGETS

1992 FUND ESTIMATE
TRANSPORTATION PLANNING AND DEVELOPMENT ACCOUNT
BASED ON TRENDS AND EXISTING LAW
($ In 1,000)

	1991-92 & PRIOR	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	STIP TOTAL
RESOURCES									
Beginning Reserve	20,602	0	0	0	0	0	0	0	0
Sales Tax On Gasoline	37,100	44,200	50,900	57,700	58,200	58,700	59,100	59,600	388,400
Sales Tax On Diesel	104,000	141,300	151,600	161,800	172,500	185,300	200,400	219,800	1,232,700
Abandoned Railroad Account Transfer	130	0	0	0	0	0	0	0	0
Interest (SMIF)	4,000	5,000	10,000	10,000	10,000	10,000	10,000	10,000	65,000
State Highway Account Transfer (1)	16,425	16,700	17,500	18,300	19,100	20,000	20,900	21,800	134,300
Total Resources	182,257	207,200	230,000	247,800	259,800	274,000	290,400	311,200	1,820,400
SUPPORT COSTS									
Rail & Mass Trans Staff & Support (2)	20,862	20,300	17,900	18,700	19,500	20,400	21,300	22,300	140,400
Planning Staff & Support	12,436	13,000	13,600	14,200	14,800	15,500	16,200	16,900	104,200
Local Planning	4,032	4,200	4,400	4,600	4,800	5,000	5,200	5,400	33,600
High Speed Rail Study	0	2,000	2,000	0	0	0	0	0	4,000
California Transportation Commission	1,251	1,300	1,400	1,500	1,600	1,700	1,800	1,900	11,200
Public Utilities Commission	3,212	3,400	3,600	3,800	4,000	4,200	4,400	4,600	28,000
Institute of Transportation Studies	956	1,000	1,000	1,000	1,000	1,000	1,000	1,000	7,000
BCP Reservation	0	2,000	4,000	6,000	8,000	10,000	13,000	16,000	59,000
Total Support	42,749	47,200	47,900	49,800	53,700	57,800	62,900	68,100	387,400
Available For Programming	139,508	160,000	182,100	198,000	206,100	216,200	227,500	243,100	1,433,000
State Transit Assistance Transfer	(57,413)	(77,500)	(86,050)	(94,000)	(98,050)	(103,100)	(108,750)	(116,550)	(684,000)
COMMITTED PROGRAM									
• Prior Year Commitment (3)	11,562	0	0	0	0	0	0	0	0
• Transit Capital Improvements	51,407	31,200	0	0	0	0	0	0	31,200
• Rail Services & Feeder Bus Ops (4)	18,334	25,200	18,000	18,700	19,500	20,300	21,200	22,100	145,000
• Airport Ground Access	780	30	0	0	0	0	0	0	30
Total Committed Program	82,083	56,430	18,000	18,700	19,500	20,300	21,200	22,100	176,230
Funds Available For Additional Programming-State Funds	**$12**	**$26,070**	**$78,050**	**$85,300**	**$88,550**	**$92,800**	**$97,550**	**$104,450**	**$572,770**

Notes:

1) The State Highway Account Transfer includes $30,000.00 transferred to TP&D annually from the Aeronautics Account.
2) Beginning FY 92/93 the responsibility for the Peninsula Commute Service (PCS) will be assumed by the local governments pursuant to Chapter 1283 of the 1989 Statutes.
3) In fiscal year 91/92 the figure shown represents a portion of the prior year Transit Capital Improvements funding.
4) Fiscal year 93/94-98/99 reflect only Amtrak costs. The years from 91/92-98/99 also reflect proposed new Amtrak services and are subject to increase as a result of early initiation of new rail services.

REPRODUCED FROM THE 1992 ADOPTED FUND ESTIMATE

Table IV. 1992 Fund Estimate for the TP&D Account

Appendix - Public Review

Prior to the submittal of the Draft of this Plan to the California Transportation Commission (CTC) for its advice and consent in June 1991, draft copies were sent to Amtrak, the Santa Fe Railway, the Southern Pacific Transportation Company, Union Pacific Railroad, the California Public Utilities Commission, Regional Transportation Planning Agencies, the Steering Committee of Caltrans Rail Task Force, the Los Angeles-San Diego Rail Corridor Agency and the Departmental Transportation Advisory Committee for their review and comment. The attached comments were received:

- The **Departmental Transportation Advisory Committee** (DTAC) reviewed a draft of the Plan at its April 26, 1991 meeting. The Committee recommended approval of the Plan as submitted.
- The **California Public Utilities Commission** (CPUC) reviewed the Plan and submitted three specific comments:

  1. The Plan should identify the members of the Work Plan Advisory Committee on High Speed Rail; and the CPUC should participate in its work and in the New Technology Program.

     Comment: A listing of members of the Work Plan Advisory Committee has been added to the Plan. Caltrans welcomes comments from the CPUC on all elements of high-speed rail development in California.

  2. The CPUC notes its continuing economic and safety jurisdiction over rail service in California.

     Comment: Caltrans appreciates the CPUC pointing out their continuing economic jurisdiction over non-Amtrak service in California and over safety matters.

  3. The Plan should acknowledge rail safety issues, particularly relating to proposed high-speed rail development.

     Comment: Caltrans agrees that rail safety is an extremely important element of high-speed rail development, and that high-speed operations should use a controlled right-of-way with full grade separations and automatic signal control. However, high-speed rail corridor development is beyond the scope of the specific upgrade projects included in the Intercity Rail Program in this Plan.

     The SB 1307 work plan acknowledges the need for safety related improvements to implement high-speed rail service in California, such as grade crossings and use of new rights-of-way.

- The **National Railroad Passenger Corporation** (Amtrak) submitted a letter transmitting numerous comments, which were noted on various pages throughout the Plan.

  Comment: Caltrans appreciates Amtrak's comprehensive review of the Plan, and has reflected almost all of Amtrak's comments in the text.

- The **Steering Committee of Caltrans Rail Task Force** voiced concern for elements of Chapter IV, the *San Joaquins.* Several issues were of particular concern to Committee members.
  - Many Committee members felt there was too much emphasis on the bus connection portion of the *San Joaquin* chapter. As a result of this concern, the sections on bus connections have been removed from the chapter and placed in a separate chapter.
  - The period for review of draft chapters for this edition of the Plan did not permit a thorough evaluation by the Steering Committee. Assurances have been made to the Committee that the next edition of the Plan will have a review period that will allow greater input from them.
  - Minor editorial changes as well as a stronger emphasis on specific recommendations were also requested by the Committee. These were made in the final edition of the Plan.
- The **San Luis Obispo Area Coordinating Council** (SLOACC) reviewed the Plan and submitted five specific comments:
  1. Expressed support for Caltrans study of the feasibility of extending one *San Diegan* round-trip from Santa Barbara to San Luis Obispo, with connecting bus service to Atascadero and Paso Robles; also, support for providing San Luis Obispo bus connections for an additional Los Angeles-Santa Barbara train service.

     Comment: Caltrans study of extending one *San Diegan* round-trip to San Luis Obispo will examine the potential of feeder bus extensions to Atascadero and Paso Robles. The feasibility of San Luis Obispo bus connections will be reviewed in conjunction with the operation of any additional trains between Los Angeles and Santa Barbara.
  2. Expressed support for extending the feeder bus system north of San Luis Obispo to connect with the Monterey-San Jose/Oakland corridor.

     Comment: The San Luis Obispo rail extension study (as mentioned in #1 above) will also examine the potential for a feeder bus extension to the Monterey-San Jose/Oakland corridor.
  3. Expressed support for a Coast Route overnight service, but oppose use of San Luis Obispo County's share of Proposition 116 funds to acquire equipment for such a service.

     Comment: Absent use of Proposition 116 bond funds (the Coast Route north of Santa Barbara is not statutorily eligible for Proposition 108 funds), a lease/purchase arrangement offers potential for providing equipment for the Coast Route at a much lower initial cost. Caltrans updated projections find the route is still projected to meet the State-mandated 55 percent farebox ratio. However, funding for capital needs, including equipment, would have to be provided by the Legislature before service implementation could proceed.

4. Expressed support for inclusion of the Santa Barbara-San Jose corridor as an eligible rail corridor for Proposition 108 rail bond funding (and the two subsequent $1 billion bond issues scheduled for votes in 1992 and 1994).

   Comment: Inclusion of the Santa Barbara-San Jose route in the list of corridors eligible for Proposition 108 rail bond funds (and the subsequent 1992 and 1994 rail bond issues) is a matter for consideration by the Legislature. However, as all funds to be received from Proposition 108 (and the two later bond issues) have already been programmed to specific routes and projects in the 1990 State Transportation Improvement Program, inclusion of this new route would require reprogramming of funds from other routes to this route.

5. Expressed support for a stop at Paso Robles for the *Coast Starlight.*

   Comment: Caltrans supports this proposal. However, as the *Coast Starlight* is an Amtrak basic system train (not funded by the State), the decision to make this stop must be made by Amtrak. Caltrans will, of course, consider Paso Robles as a key point for expanded *San Diegan* route feeder bus service in this corridor.

- The **Santa Barbara County Association of Governments** (SBCAG) reviewed the Plan and submitted three specific comments:

  1. The study to be undertaken by Caltrans of extending direct *San Diegan* rail service from Santa Barbara to San Luis Obispo should address the impact of such an extension on existing Amtrak feeder bus service to Santa Maria and Lompoc, as well as capital improvement costs (for stations, track and signals) associated with such an extension.

     Comment: The Caltrans study will address each of these issues.

  2. Rail bond funding for Santa Barbara station improvements should be shown in the Intercity Rail Program for Fiscal Years 1993-94 to coincide with the expansion of *San Diegan* route service to Santa Barbara.

     Comment: This change has been made.

  3. The proposed extension of *San Diegan* service to Goleta should be mentioned, and Proposition 116 funded projects should be shown for Santa Barbara County.

     Comment: The Plan now mentions the proposed extension to Goleta, and includes Proposition 116 funded projects for Santa Barbara County in the Intercity Rail Program (see Chapter VII, Section B of the IRP).

- The **Ventura County Transportation Commission** (VCAG) reviewed the Plan and submitted three specific comments:

  1. Project A.2.b. for CTC Goleta-Oxnard should be moved to Fiscal Year 1992/93.

     Comment: This project has been included in Project 6023 for Fiscal Year 1992/93 (see Chapter VII, Section B of the IRP).

  2. The Plan should mention that the SB 1402 report was also prepared in consultation with the VCAG.

     Comment: This correction has been made.

3. The list of Los Angeles Basin TCI Commuter Rail Projects should also include the development of a passenger rail platform in the City of San Buenaventura.

   Comment: The 1991 Intercity Rail Program (see Chapter VII, Section B of the IRP) includes Ventura Station Improvements as a TCI project for Fiscal Year 1991/92. If commuter rail service is provided to Ventura, the station will also be used for this purpose.

STATE OF CALIFORNIA - BUSINESS, TRANSPORTATION AND HOUSING AGENCY PETE WILSON, Governor

DEPARTMENTAL TRANSPORTATION ADVISORY COMMITTEE
1130 K STREET (4th floor)
P. O. BOX 942874
SACRAMENTO, CA 94274-0001
(916) 445-5860
TDD (916) 445-5945

May 13, 1991

Mr. A. A. Pierce
Interim Director
Department of Transportation Planning
1120 N Street
Sacramento, CA 95814

Dear Mr. Pierce:

At its April 26, 1991 meeting, the Departmental Transportation Advisory Committee reviewed the California Rail Passenger Development Plan (previously: Biennial Rail Plan) required by Chapter 627, Statutes of 1990.

Following a staff presentation and discussion, the Committee complimented the author for a fine job in preparing the report. The Committee adopted a motion to recommend approval of the report as submitted.

Sincerely,

ARTHUR LLOYD, Chairman
Departmental Transportation
Advisory Committee

cc: Matt Paul

STATE OF CALIFORNIA PETE WILSON, *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

June 3, 1991

Steve Alston, Chief
Dept. of Transportation
1120 N Street
Sacramento, CA 94273-0001

Dear Steve:

I have reviewed the draft copy of the 1991 California Rail Passenger Development Plan and it presents the groundwork for an impressive statewide integrated rail passenger plan. As impressive and comprehensive as the document is, I do have the following concerns relating to High Speed Rail, CPUC jurisdiction and safety concerns:

High Speed Rail; I recommend that you identify in the report the fifteen members of the Work Plan Advisory Committee on High Speed Rail. Also I believe participation by the CPUC in the Work Plan and Feasibility Study as well as in the New Technology Program would be valuable to these efforts.

CPUC Jurisdiction; It is important to note that due to recent litigation before the State Supreme Court, Federal Appellate Court and Interstate Commerce Commission, the CPUC has economic jurisdiction over all intrastate passenger service provided by private carriers. This involves more than the California Western Railroad noted in your report. It would also include the passenger operations of such carriers as the Napa Valley Railroad, Sierra Railroad, Eureka Southern Railroad and the San Francisco Peninsula "Caltrain" service as long as it is provided under contract with Southern Pacific Railroad. Our economic jurisdiction does not extend to Amtrak.

The CPUC's safety jurisdiction is much more comprehensive. It applies to all rail operations regardless of whether the line is public or privately owned or operated, including those operated by Amtrak. It also includes jurisdiction over all railroad/highway grade crossings and/or separations in this state whether the line is public or private.

Safety Concerns; This is my major concern as I believe safety is too important a topic to be overlooked in a statewide "rail passenger development plan". Safety will have a lot to say about what planned rail services are in fact acceptable and feasible. Although a development plan such as yours would not be expected to identify potential unique local safety hazards, I do believe

it should identify the need for funding the safety of operating high speed passenger train service. This especially would include the costs of closing and/or separating at-grade crossings along the lines where train speeds are proposed to be increased beyond 79 mph. It would also include other safety related issues such as controlled right-of-way and installation of automatic signal control.

The above are just some concerns I have on a report that is overall excellent and does provide us with some very useful and interesting information. If you have any questions on my comments, please call me at (415) 557-1491.

Very truly yours,

WILLIAM L. OLIVER, Director
Safety Division

National Railroad Passenger Corporation, Union Passenger Terminal, 800 North Alameda Street, Los Angeles, California 90012

Amtrak

June 12, 1991

Mr. Steven Alston, Chief
Office of Rail Services
DEPARTMENT OF TRANSPORTATION
P.O. Box 942874
Sacramento, California 94274-0001

Dear Mr. Steve Alston:

This refers to your letter dated April 17, 1991, requesting review and comments concerning the draft copy of the 1991 California Rail Passenger Development Plan.

Amtrak's comments are indicated on the enclosed pages of the draft report. Only those pages with any comments are included. The Division of Rail should be proud of their efforts in producing such a comprehensive and thorough planning document.

Thank you for the opportunity in having us review and comment on the report. If you have any questions, please feel free to contact me.

Sincerely,

Ron Scolaro

Ron Scolaro
Chief Administrative Officer
Government Affairs - West

RS:stm

AN EQUAL OPPORTUNITY EMPLOYER

San Luis Obispo Area Coordinating Council

and Regional Transportation Planning Agency

Arroyo Grande
Atascadero
Grover City
Morro Bay
Paso Robles
Pismo Beach
San Luis Obispo
San Luis Obispo County

May 17, 1991

Steve Alston, Chief
Office of Rail Service
Department of Transportation
1120 N Street
P.O. Box 942873
Sacramento, CA 94273-0001

Re: Review: Draft 1991 California Rail Passenger Development Plan

Dear Mr. Alston:

Thank you for the opportunity to comment on the Draft 1991 California Rail Passenger Development Plan. This is truly an exciting time for rail development in California, and as noted in the Plan, San Luis Obispo County is a promising new market for the expansion of intercity rail services. Initially, we would like to express our support for increased rail service on the Central Coast and our appreciation of your attention to our concerns.

We presented the following five specific comments and recommendations to the Area Council for approval at our meeting on May 15, 1991. Thank you for sending Mr. Matt Paul of your staff to give an overview of the Draft California Rail Development Plan. His insights concerning rail development on the Central Coast were very helpful.

The Area Council supports the Plan's discussion concerning the Santa Barbara-San Luis Obispo expansion and the overnight Coast Route service discussed in the Plan. We will be working with the Caltrans district office to coordinate our rail feasibility study and the Caltrans study mentioned in the plan. In addition there are three comments that we suggest are included in the Plan. We feel that the potential for a bus-feeder link from San Luis Obispo to San Jose should be examined, the Division of Rail should note support for designation of Santa Barbara-San Jose as an intercity corridor, and lastly the Plan should note the City of Paso Robles intent to secure an Amtrak stop in that city.

Contact Peter Rodgers on my staff at (805) 549-5712 if you should have any further concerns. Thanks again for your support!

Sincerely,

Ronald L. DeCarli
Executive Director

cc: Cheryl Willis, Caltrans District 5
cc: Senator Kenneth Maddy, Fourteenth District
cc: Assemblywoman Andrea Seastrand, Twenty-ninth District

County Government Center, San Luis Obispo, CA 93408 (805) 549-5612

San Luis Obispo Area Coordinating Council's review of the California Rail Passenger Development Plan for fiscal years 1991-96:

SPECIFIC COMMENTS AND RECOMMENDATIONS

1. **(Page 21) Santa Barbara-San Luis Obispo - SUPPORT**

We support of the Plan's discussion of the successful new bus service between Santa Barbara and San Luis Obispo. The new intermediate stops between Santa Barbara and San Luis Obispo have shown exceptional ridership. With increased public awareness, we believe passenger counts will continue to increase. We support the suggestion that any additional Los Angeles-Santa Barbara train service also feature connecting bus service to and from San Luis Obispo. We support Caltran's examination of extending of one San Diegan round-trip north to San Luis Obispo. Such an extension should include service to the Cities of Atascadero and Paso Robles with a bus-feeder connection. Over the next year, the Area Council will be conducting a rail feasibility study. An effort should be made to coordinate these studies to maximize benefits and minimize any duplication of efforts.

2. **(Page 59) Bus-feeder link to San Jose Corridor - INCLUDE**

The Plan does not consider the possibility of extending the bus-feeder system north to connect with the Monterey-San Jose/Oakland corridor. We support introducing bus service to test ridership levels and gauge the potential for increased rail service in this corridor.

3. **(Page 62) Coast Route overnight service - SUPPORT**

Caltrans Division of Rail is required by AB 3671 to determine the feasibility of overnight service on the Coast Route between Sacramento and Los Angeles. We support increased service to the Central Coast, provided an equitable agreement can be reached to acquire the necessary rolling stock. We are opposed to allocating the $10 million dollars provided in Proposition 116 for the County to purchase the necessary equipment for this service. The route considered would serve 10 counties north and south in California. An equitable equipment financing plan should be developed to accommodate this service expansion.

4. **(Chapter IV) Support inclusion of Santa Barbara-San Jose Corridor as an eligible Intercity Rail Corridor under the Streets and Highways Code - INCLUDE**

Section 164.55 (Article 4.3) of the Streets and Highways Code specify intercity rail corridors eligible for studies and rail bond funds under Proposition 108. Proposition 108 authorized $1 billion in bond funds for rail projects, with an additional $2 billion scheduled for votes in 1992 and 1994. Studies such as the High-Speed Ground Transportation System study, pursuant to SB 1307, will consider those corridors to produce a general plan for an integrated system. The Coastal Route, from Santa Barbara to San Jose, is not included in that legislation, and therefore not eligible to participate in the funding sources.

In the interest of increased rail service on the Central Coast, we support inclusion of the Coastal Route corridor as an eligible intercity corridor. Area Council will pursue such legislation and the Plan should support such legislation to clearly evaluate all potential rail services. The Coastal Route clearly provides an essential link between northern and southern coastal cities. The Coast Starlight train currently serves this corridor. In the past it has been identified as one of the most popular intercity trains in the nation.

5. **Coast Starlight train stop in Paso Robles - INCLUDE/SUPPORT**

The City of Paso Robles is interested in the construction of a multimodal facility and the possibility of securing an Amtrak train stop. The City has notified Amtrak of their interest and will be participating in the rail feasibility study that will be conducted in September, 1991. Paso Robles is the fastest growing City in the county of San Luis Obispo and has demonstrated good ridership to and from both the San Diegan and San Joaquin trains through the bus-feeder links currently serving that city. The Plan should note Paso Robles intent to secure a train stop and support increased bus-feeder and rail service in this corridor.

Santa Barbara County
ASSOCIATION OF
GOVERNMENTS

May 10, 1991

Mr. Steve Alston
Caltrans Office of Rail Service
P.O. Box 942873
Sacramento, CA 94273-0001

Subject: Draft 1991 Rail Passenger Development Plan

Dear Mr. Alston:

SBCAG has reviewed the Rail Passenger Development Plan and would like to offer some comments and suggestions:

Extension of San Diegan Service to San Luis Obispo

We believe that an extension of service to San Luis Obispo should be evaluated (page 22). We are concerned, however, that such an expansion could negatively affect the viability of service to northern Santa Barbara County. The cities of Santa Maria and Lompoc which are currently well-served by the AMTRAK feeder buses, would likely experience a degradation of service in two respects.

First, the running times would increase somewhat because the rail route is longer than the bus route. Second, and more importantly, access to the rail line from Santa Maria and Lompoc would be much worse. Both communities are located roughly ten miles east of the rail corridor. This access problem obviously makes the rail service extension less convenient to the residents and visitors of these communities.

We are concerned about the potential costs of extending the San Diegan service as well. The capital improvement costs associated with this service could be considerable. Passenger stations would need to be constructed to serve northern Santa Barbara County (in addition to the proposed station in Goleta which is unfunded). Other capital projects will likely be required for the new service including track and signal improvements.

Each of these issues should be addressed in the evaluation of the service extension.

222 East Anapamu Street, Suite 11 • Santa Barbara, CA 93101 • Phone (805) 568-2546 • Fax (805) 568-2947

1990 Intercity Rail Program

In a January 30, 1991 letter to Cindy McKim, SBCAG advised Caltrans of our intent to improve and expand the Santa Barbara AMTRAK station. We will be conducting a study later this year to identify the parking, intermodal access and passenger amenity improvements that are needed to accommodate the planned expansion of San Diegan service to Santa Barbara. The scope and cost of these improvements will probably be known by the early 1992.

We feel strongly that the station improvements must precede the service expansion. Consequently, we request that Caltrans program this station improvement project in the IRP for fiscal year 1993-94 to coincide with the schedule for expansion of the San Diegan service. At this time we anticipate that the project will be funded using some of the $17.0 million in rail bond funds allocated for intercity rail projects in Santa Barbara County under Proposition 116.

Goleta Extension

The proposed extension of service to Goleta and construction of a passenger station in Goleta is not mentioned anywhere in the text. This new service and station should be discussed in Chapter III. Also, the IRP includes no Proposition 116 funded projects in Santa Barbara County. Why isn't this shown as an anticipated source of funding for the Goleta extension?

Finally, we would like to compliment the department on the improvements made to the document. The plan is much more useful than in prior years. Of particular note is the inclusion of capital and operating improvement programs with identified schedules and funding sources.

If you have any questions regarding our comments please contact Jim Kemp of my staff.

Sincerely,

G. R. Lorden
Executive Director

GRL:jk

RAILPLAN.LET

VENTURA COUNTY
TRANSPORTATION COMMISSION

950 County Square Drive Suite 207
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(805) 642-1591
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May 17, 1991

Mr. Steve Alston, Chief
Offive of Rail Service
State Department of Transportation
P.O. Box 942873
Sacramento, CA 94273-001

Attention: Matt Paul

Dear Mr. Alston:

Thank you for the opportunity to comment on the draft 1991 California Rail Passenger Development Plan. The Plan is a very useful documentation of the variety of rail activities occurring throughout the State. However, we do have a few comments about it.

First, please replace the "Ventura County Association of Governments" on your mailing list with the Ventura County Transportation Commission. Note also, the VCTC is in Suite # 207.

Second, in the Intercity Capital Improvement Program section, under FY 93/94 Project 9015, capacity improvement project A.2.b.: CTC Goleta-Oxnard should be moved. It should be advanced to FY 92/93 Project 6017 on Page 81. This agreement was just reached between the VCTC and Caltrans in order to maximize use of Ventura County's Proposition 116 funds by combining as many intercity improvements with commuter rail improvements as could be done.

Third, the reference to development of the SB 1402 plan on page 156 should also mention that the report was prepared in consultation with the Ventura County Transportation Commission as well as the other agencies listed. Although not required by law to participate, the VCTC voluntarily did so because of the Moorpark/Simi Valley service link to the Los Angeles basin.

Fourth, on the list of Los Angeles Basin TCI Commuter Rail Projects, you might want to include development of a passenger rail platform at the City of San Buenaventura for a total cost of $388,000 split between TCI and local funds. ALthough this will be used initially for Intercity rail service, it is very likely it will also be used eventually for commuter rail service.

Please give me a call if you have any questions.

Sincerely,

Ginger

Ginger Gherardi
Executive Director

CALIFORNIA DEPARTMENT OF TRANSPORTATION

Division of Rail

1801 30th Street, East Building

Sacramento, CA 95816

July 1991

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