

Comment Letter AL054

AL054



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August 26, 2004

Mr. Dan Leavitt
 California High-Speed Rail Authority
 925 "L" Street, Suite 1425
 Sacramento, CA 95814

Subject: Comments to Draft Program EIS/EIR for the Proposed California High Speed Train System (CAHSR)

Dear Mr. Leavitt:

PCJPB staff has reviewed the Draft Program CAHSR Draft EIS/EIR and is submitting the following comments:

1. The Peninsula Corridor Joint Powers Board has affirmed its support and full cooperation for the CAHSR program and more specifically the CAHSR alternative(s) which share the corridor with Caltrain from San Francisco to San Jose. Please refer to the attached PCJPB Board Resolution No. 1999-48. (S.4.3)
2. The PCJPB has authorized its Executive Director to execute a Memorandum of Understanding (MOU) with CAHSR which identifies specific technical and operational issues related to CAHSR "shared corridor alternatives" on the San Francisco to San Jose PCJPB corridor. Provided that the CAHSR Draft EIS/EIR is adopted, and a decision is made to pursue the PCJPB/CAHSR shared corridor concept, additional analysis will be needed to fully evaluate both the impacts and potential benefits of the proposed shared corridor. Copies of the PCJPB Board Resolution No. 2003-24 and executed MOU are attached for reference.
3. Of the three alternatives proposed, PCJPB supports the High-Speed Train alternative utilizing state-of-the-art electrically powered, 2 x 25 KV Overhead Catenary, high-speed, steel-wheel-on-rail technology. (S.4.3)

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4. The PCJPB recently adopted a 20-year Strategic Plan. The Strategic Plan provides four future scenarios for development of the PCJPB (Caltrain) system. These development scenarios include a Status Quo, Moderate Growth, Enhanced and Build-Out. Portions of the Strategic Plan that are relevant to implementation of CAHSR are attached. The No-Project and Modal Alternatives should also be taken into consideration with respect to the attached portion of the PCJPB Strategic Plan and addressed in the Final EIS/EIR. (S.4, 5.5).
5. With regard to the alternative corridor alignment and station options, the PCJPB supports a CAHSR alignment that shares track with PCJPB on the PCJPB corridor provided that the technical and operational compatibility issues outlined in the PCJPB/CAHSR Memorandum of Understanding can be mutually resolved. PCJPB's conceptual planning efforts indicate that the combined future PCJPB and CAHSR service levels will require an electrified 4-track fully grade separated rail corridor with maximum operating speeds from 90 to 110 mph. Additionally, conceptual planning has indicated that the shared PCJPB/CAHSR tracks, structures, signals, train control systems, stations, and rolling stock must be fully compatible in terms of both operations and regulations. The combined PCJPB/CAHSR "shared rail corridor" must also be able to accommodate a limited amount of inter-state commerce freight service as well as allow for new construction, reconstruction and maintenance of the system. (S.4.3) (5.7) (5.5.2)
6. The PCJPB agrees with Key Findings that implementation of CAHSR as the preferred system alternative (S.5.4)
7. The performance criteria provided in Table 2.6-2 for the CAHSR system should include a "shared track compatibility category" and the criteria should state that the system would be "fully compatible" when operating at reduced speeds with the other rail operator(s) under a "shared corridor" scenario.
8. The 'DRAFT' EIS/EIR assumes that CAHSR service could be initiated only after completion of the system from San Francisco to Los Angeles. It would be possible and very advisable to complete some short segments of the system and place those segments into service to facilitate testing and start-up of the larger system. The CAHSR/PCJPB shared segment from San Francisco to San Jose would be an excellent candidate for early construction and operations while the remaining more difficult line segment to the south are under construction.
9. The PCJPB agrees with the alignment and station options carried forward on pages 2-51, 2-52, 2-53 and 2-54 for San Francisco to San Jose and San Jose to Merced alignment and station options. (S.2.6.9)
10. The PCJPB recommends that a site for basic service, inspection, light maintenance and storage of CAHSR train sets be included near the San Francisco Downtown Terminal. The proposed Transbay and 4th and Townsend terminals cannot support these additional support functions. (S.2.6.10)

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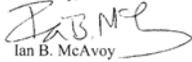
- 11. In Appendix 3.17-A, Page 3.17 A-1, please include the Caltrain Electrification Program and the Transbay Terminal/Downtown Extension Project, plus the four development scenarios in PCJPB's strategic plan, in this Cumulative Analysis.
- 12. The Draft Program EIS/EIR appears to lack a projected ridership section and projected ridership effect on secondary public transportation providers. Please include a ridership projection section in the Final EIS/EIR broken down by segments, and include ridership effects of CAHSR on local public transportation providers such as Caltrain. Please include the ridership projections in a table in the document, in the index, table of contents, and as an appendix.

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Again, thank you for CAHSR's collaboration on this proposed project. We look forward to working with you as you complete this environmental review and during design and construction. If you need additional information, please don't hesitate to contact me at (650) 508-6346.

Sincerely,



Ian B. McAvoy
Chief Development Officer
Peninsula Corridor Joint Powers Board

IBM/DJM:lpn

Attachments: PCJPB Resolution No. 1999-48 (2 Pages)
PCJPB Resolution No. 2003-24 (2 Pages)
CAHSR and PCJPB MOU (3 Pages)
Caltrain Strategic Plan 2004-2-23 Excerpts (18 Pages)

Cc: Darrell J. Maxey
Robert Doty
Michael Chan
Anthony Quicho
Stephen Chao
Raul Millena
Brian Fitzpatrick
Erik Olafsson
Document Control
File

RESOLUTION NO. 1999- 48

PENINSULA CORRIDOR JOINT POWERS BOARD
STATE OF CALIFORNIA

RESOLUTION SUPPORTING THE PENINSULA RAIL CORRIDOR AS A
POTENTIAL SEGMENT OF THE INTERCITY HIGH SPEED RAIL NETWORK
LINKING NORTHERN AND SOUTHERN CALIFORNIA

WHEREAS, the California Intercity High-Speed Rail Commission has identified the Peninsula Rail Corridor as a potential segment of the 676-mile network that would link Northern and Southern California and serve more than 90 per cent of the State's population, and

WHEREAS, said Peninsula Corridor and its rail facility, Caltrain, also joins the cities of San Francisco and San Jose, two of California's most vital population centers and conduits of anticipated economic and cultural growth at the threshold of the 21st Century; and

WHEREAS, the corridor not only provides critical rail access to the City of San Francisco, but also serves as the gateway to San Francisco International Airport, one of the most important transportation terminals on the Pacific rim; and

WHEREAS, the Peninsula Corridor Joint Powers Board is embarking on a series of major improvements to the system infrastructure, including track, signals, bridges and station enhancements; and

WHEREAS, said improvements also include electrification of the system between San Francisco and Gilroy; and

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WHEREAS, the Joint Powers Board's newly-adopted Capital Budget includes a provision for final environmental documentation to support an extension of the Caltrain system from its present San Francisco terminal to a downtown location; and

WHEREAS, these developments serve to enhance the potential of the Peninsula Corridor as an irreplaceable component of the California High-Speed Rail system;

NOW, THEREFORE, BE IT RESOLVED that the Peninsula Corridor Joint Powers Board hereby affirms its support of the California Intercity High-Speed Rail Program, and affirms its full cooperation to the California High-Speed Rail Authority in its efforts to bring the program to early fruition.

Regularly passed and adopted this 2nd day of September, 1999, by the following vote:

AYES: Ayerdi, Burns, Lloyd, McLemore, Nevin, Powers, Schmidt, Lawson

NOES:

ABSENT: Katz

Jim Lawson
Chair, Peninsula Corridor Joint Powers Board

ATTEST
[Signature]
Board Secretary

RESOLUTION NO. 2003 - 24

**BOARD OF DIRECTORS, PENINSULA CORRIDOR JOINT POWERS BOARD
STATE OF CALIFORNIA**

**AUTHORIZING THE EXECUTIVE DIRECTOR TO EXECUTE A
MEMORANDUM OF UNDERSTANDING WITH THE
CALIFORNIA HIGH SPEED RAIL AUTHORITY**

WHEREAS, the State of California has established the California High Speed Rail Authority (CHSRA); and

WHEREAS, the CHSRA has selected the Caltrain Peninsula Corridor (the "Corridor") as a potential route for a proposed High Speed Rail (HSR) System (the "HSR Project"); and

WHEREAS, opportunities exist for Caltrain to significantly benefit from the HSR Project; and

WHEREAS, the CHSRA is preparing a Program Level Environmental Assessment for the HSR Project which contemplates shared utilization of the Corridor between San Jose and San Francisco; and

WHEREAS, shared use of the Corridor will require coordination and resolution of technical and service issues; and

WHEREAS, the Peninsula Corridor Joint Powers Board (JPB) and CHSRA staff have drafted a Memorandum of Understanding (MOU) which defines specific areas upon which the parties will coordinate and provides the basis for each agency to identify and evaluate the issues and requirements associated with shared use of the Corridor.

NOW, THEREFORE, BE IT RESOLVED that the Executive Director is authorized to execute the attached Memorandum of Understanding with the California High Speed Rail

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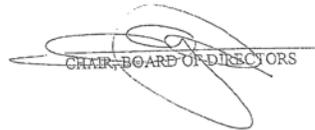
Authority on behalf of the Peninsula Corridor Joint Powers Board in a form approved by Legal Counsel.

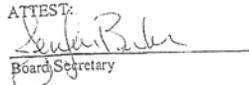
Regularly passed and adopted this 3rd day of July 2003 with the following vote:

AYES: Ayerdi, Janney, Lloyd, Maxwell, Nevin, Valerio, Yeager

NOES:

ABSENT: Burns, McLemore


CHAIR, BOARD OF DIRECTORS

ATTEST:

Board Secretary

MEMORANDUM OF UNDERSTANDING

Between

the California High Speed Rail Authority (CHSRA) and
the Peninsula Corridor Joint Powers Board (PCJPB)

A. Purpose

The parties desire to set forth a framework for future cooperation between the CHSRA and the PCJPB after the CHSRA and the Federal Railroad Administration have completed the Final Program EIR/EIS for a proposed high speed train system for California.

B. Shared Corridor Concept

Based upon planning studies conducted by the CHSRA and the PCJPB, the CHSRA identified the shared corridor concept as an alternative for evaluation in the Program EIR/EIS. Following the completion of the Final Program EIR/EIS, if a decision is made to pursue the shared corridor concept, additional analysis will be needed in order to evaluate the full potential for such shared use in the Corridor. The initial tasks and objectives of the parties under this MOU will be to prepare a description of potential corridor modifications and to prepare a proposed draft complementary operating strategy, or strategies, which may be needed or useful in order to facilitate or to enhance the potential for shared use of the corridor. This MOU sets forth the process for performing these initial tasks.

C. Equipment and Facilities Compatibility

1. The PCJPB shall make available to the CHSRA and its consultants detailed information describing the standards and requirements currently applicable to the PCJPB's Caltrain system, including equipment specifications, train signaling, engineering criteria and traffic control, plus other technical characteristics which determine the requirements for Caltrain equipment and facilities.
2. The CHSRA shall make available to the PCJPB a detailed description of the performance standards, the engineering parameters, the equipment need and the system operational assumptions used in the preparation of the Final Program EIR/EIS for a proposed high speed train system for California and any additional requirements resulting from decisions made following the certification of the Final Program EIR/EIS. This information will include vehicle type, size and performance characteristics and such other details necessary to evaluate further

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the potential compatibility of proposed high speed train operations with Caltrain operations in the Corridor (i.e., shared use).

- 3. Staff of the PCJPB and staff of the CHSRA shall each prepare a draft assessment of the equipment and facilities compatibility potential for the possible joint use of the Corridor. After staff of each agency has independently made a draft assessment, staff representatives from each agency will meet to discuss their respective draft assessments, and to commence preparation of a draft joint assessment of compatibility.
- 4. After the preparation of the draft assessments by staff of each party, the parties will work together to identify and evaluate potential strategies and potential modifications which could be used or pursued in order to address limitations or constraints on the potential for shared use of the Corridor, including issues that may involve a third party, such as a freight railroad or a governmental agency.

D. Service Level Compatibility

- 1. The PCJPB is preparing a Strategic Plan for Caltrain to identify desired improvements to Caltrain. The PCJPB plans to include in its Strategic Plan an option which would incorporate a proposed High Speed Rail service in the Corridor.
- 2. The CHSRA will provide to the PCJPB detailed information describing the proposed HSR service in the PCJPB corridor, anticipated operating speeds and potential location of conceptual HSR stations, from the evaluation of potential shared use of the Corridor as an alternative in the Program EIR/EIS.
- 3. The PCJPB will review the proposed level of HSR service evaluated as an alternative in the Program EIR/EIS for the PCJPB's corridor in order to identify anticipated services coordination issues which may be related to pursuing such an alternative. For those locations which could potentially accommodate HSR service, the PCJPB will identify the potential facility improvements and modifications which may be necessary for or could facilitate such service, and will provide a description of these potential facility changes to the CHSRA for review and comment.

E. Shared Corridor Requirements

- 1. Based upon the joint assessment of compatibility and the identification of potential modifications to enhance shared use opportunities, as described in the preceding two sections, the PCJPB in cooperation with the CHSRA will prepare a proposed Shared Corridor Plan which contains a draft complementary operating strategy or strategies.

- 2. A preliminary cost estimate for identified possible Corridor modifications will be prepared by the PCJPB and submitted to the CHSRA for review and comments.
- 3. The proposed Shared Corridor Plan will be submitted to the PCJPB and CHSRA for review and comment. The parties anticipate that the necessary approvals for, and the future use of, a Shared Corridor Plan will be addressed in a future MOU or in future amendments to this MOU.

F. Shared Corridor Agreement

- 1. The parties agree that any future implementation of the Shared Corridor Concept, if decisions were to be made after the completion of the Final Program EIR/EIS to go forward with the development of a proposed high speed train system and to pursue the Shared Corridor alternative, would require the preparation of a comprehensive agreement, or agreements, setting forth the roles and responsibilities of each party, and addressing construction and operation issues.
- 2. The potential topics to be covered in a possible future comprehensive agreement, however, may constitute an additional aspect of evaluating compatibility. The parties, therefore, agree to develop a draft outline of a possible future comprehensive agreement as an aid to their broad assessment of compatibility.

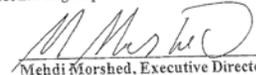
G. Amendments

This Memorandum of Understanding (MOU) may be updated, expanded, or otherwise altered, by written amendments approved and executed by both parties.

Peninsula Corridor Joint Powers Board:

 _____ 11/9/04
Date

California High Speed Rail Authority:

 _____ 10/23/03
Mehdi Morshed, Executive Director Date

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FINAL DRAFT - June 22, 2004

FINAL DRAFT - June 22, 2004

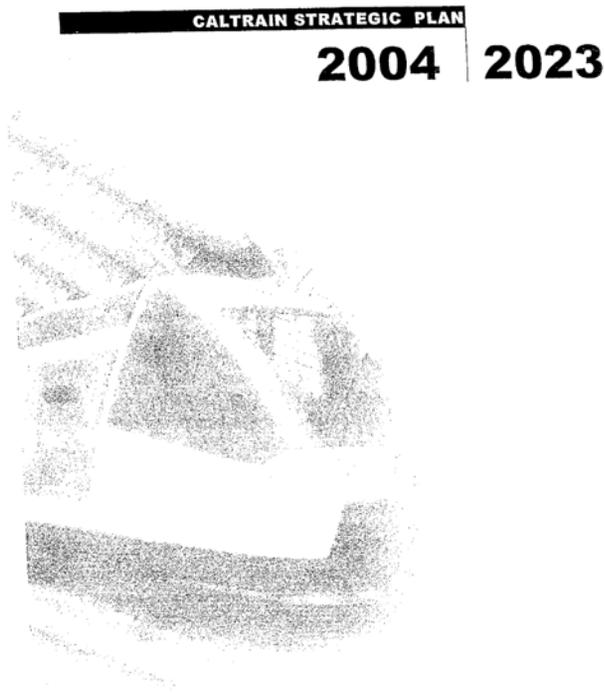


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INTRODUCTION

Introduction

The Caltrain Strategic Plan 2004 - 2023

The Strategic Plan is a blueprint for the future of Caltrain. It presents a vision and guiding principles that shape broad level policy decisions as well as specific strategies for service and capital improvements. The Strategic Plan is intended to be a reference for policymakers, Caltrain staff, and members of the public that guides them toward a common vision for Caltrain. Above all, it is meant to be an agent for change.

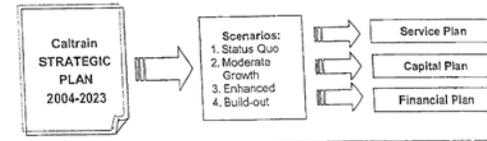
The Caltrain Strategic Plan includes the following elements:

- The Vision & Guiding Principles, which present a vision for Caltrain and outline principles for guiding policy decisions;
- A summary of the Service Plan, which details the service characteristics, policies, and budget requirements for Caltrain over the next 20 years;
- A summary of the Capital Improvement Program (CIP), which identifies policy and prioritizes capital improvements over the next 20 years; and
- A summary of the Financial Plan, which discusses funding strategies for Caltrain.

Information from the Service, Capital, and Financial plans is presented through four future scenarios: the Status Quo, Moderate Growth, Enhanced, and Build-out scenarios. The scenarios are described in detail in the Future Scenarios chapter. The service characteristics, operations and capital costs, and member agency contributions reflected in each of the scenarios are based upon the Draft Short-Range Transit Plan, Capital Improvement Plan, and Finance Plan as of June 1, 2004. The information in the Strategic Plan is meant to provide a general understanding of the costs and benefits of each scenario and to provide a basis for comparing the scenarios. Adoption of the Strategic Plan does not commit the member agencies to the funding requirements, service levels, or capital priorities presented in this document, but is an agreement of the principles and policies which will guide the development of the Short-Range Transit Plan, Service Plan, Capital Improvement Plan, and Financial Plan. These plans are being finalized and will be adopted separately from the Strategic Plan in the Fall/Winter of 2004. Any updated information related to JPB actions subsequent to the adoption of the Strategic Plan will be included as these supporting plans are finalized. Any revisions to the

Strategic Plan after adoption will be included in an addendum or in the next Strategic Plan update, anticipated by 2010.

All of the scenarios are based on reasonable assumptions of revenue availability – based on past experience and estimates of future events – and optimize federal and state funds. Where estimated revenue meets or exceeds capital program costs, the capital programs are considered to be fully funded. Underlying the financial analysis is the assumption that the local funds required to match the maximum available federal revenues will be provided by Caltrain's member agencies. These local matching funds are subject to annual approval by the three member agencies. If local matching funds are not allocated and alternative local sources are not identified, Caltrain would not be able to use all of the federal funds included in the financial plans and other sources will be required to meet any shortfalls.



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FROM PRINCIPLE TO POLICY

From Principle to Policy

The Scenario Approach

Following the development of the Vision & Guiding Principles, four future scenarios were developed to prepare Caltrain for different possible financial futures in light of multiple unknowns, such as upcoming ballot measures and the economic climate. These scenarios were used to answer key policy questions and will set a clear direction for making detailed service, capital, and financial decisions. The four scenarios are: the Status Quo scenario, the Moderate Growth scenario, the Enhanced scenario, and the Build-out scenario.

The **Status Quo Scenario** is the most financially constrained scenario. It follows a "pay-as-you-go" approach and assumes that only current (2004) levels of committed and programmed funds are available. It is assumed that upcoming local sales tax measures would not be reauthorized and no innovative funding sources would be pursued. The objective of the Status Quo Scenario is to keep the railroad operating at current levels of service, optimize existing infrastructure, and limit investment in improvements other than normalized rehabilitation and replacement.

The **Moderate Growth Scenario** is a steady growth scenario and is financially constrained in the first five years. Similar to the Status Quo Scenario it follows a "pay-as-you-go" approach, but requires some additional resources above current levels to fund planned improvements. It is assumed that upcoming local sales tax measures would not be reauthorized and no innovative funding sources would be pursued. The objective of the Moderate Growth Scenario is to optimize the operating and capital programs with limited increases in funding resources, service, and capital improvements.

The **Enhanced Scenario** is the "market-driven" scenario. It is financially constrained in the first five years (same as the Moderate Growth scenario), and assumes that additional resources become available in the outer years. The main objective of the Enhanced Scenario is to capture latent market demand by providing optimal levels of service, improving station access and regional connectivity, and incorporating universal design elements and customer amenities that are characteristic of a "world class" railroad. Innovative financing techniques would have to be pursued.

The **Build-out Scenario** is the "ultimate" scenario that integrates Caltrain and the proposed statewide High-Speed Rail system. The objective of the Build-out scenario

is to capture a significant market share of trips by providing a travel experience similar to the Enhanced Scenario that is complemented by the additional service and amenities offered by the connection to High-Speed Rail. It assumes that additional funding resources via high-speed rail bonds and other resources would be available. An aggressive innovative financing program would be required.

More detailed information on each of the scenarios is presented in the chapter titled "The Future Scenarios."

Policy Questions

Six policy questions were developed that address how Caltrain will make key decisions regarding future service and capital improvements and financial strategies. Many decisions regarding capital improvements need to be made within the next few years so that the necessary funding can be secured and costly re-dos are avoided. The findings and evaluation of the scenarios, along with input received from the member agencies and the general public were used to answer the following policy questions:

- **Scenario Approach:** Should one scenario be selected or should the scenarios be viewed as part of a continuum? In a continuum, key funding opportunities and increased demand for service can trigger a shift to another scenario.
- **Financial Strategy:** Should Caltrain continue with annual review utilizing the "pay as you go" approach or strive for long-term stability by utilizing innovative finance techniques?
- **Service Levels:** Should service levels be determined by projected financial resources or should it be market-driven?
- **System Rehabilitation:** Should Caltrain follow a normalized rehabilitation and replacement schedule or follow an accelerated schedule that is combined with other capital improvement projects?
- **Electrification:** Should electrification be deferred until funding is available or should design continue?
- **Capacity Improvements:** What level of capacity improvements should Caltrain invest in to improve headways and reliability of service in the peak periods?

Each scenario has a different combination of assumptions regarding funding availability and finance strategies, service levels, and capital improvements. These shape the general policy direction and objective of each scenario. In general, the Status Quo and Moderate Growth scenarios take a more conservative approach in



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FROM PRINCIPLE TO POLICY

their policy positions, while the Enhanced and Build-out scenarios include market-driven service and capital improvements as well as innovative financing techniques. The scenario policy approaches are presented in Table 1.

Table 1: Scenario Policies

	Status Quo	Moderate Growth	Enhanced	Build-out
Financial Strategy	Annual review, Maintain 2004 level of investment	Annual review, Pay as you go	Long-term stability, Innovative Finance Strategies	Long-term stability, Innovative Finance Strategies
Service Levels	Maintain 2004 level of service	Moderate growth	Market-driven	Market-driven
System Rehabilitation	Scheduled/ Normalized	Scheduled/ Normalized	Accelerated	Accelerated
Electrification	Deferred indefinitely	Deferred until funding available	Continue with Design	Continue with Design, must coordinate with HSR construction
Capacity Improvements	Only CTX improvements complete in 2004	North quadrant (San Mateo County) and South (Partial)	North, Central, and South	Entire route

The following conclusions to the six policy questions were drawn based on comprehensive outreach to the public and to the member agencies:

- Scenario Approach:** Should one scenario be selected or should the scenarios be viewed as part of a continuum?

It is clear that the continuum is the most prudent and practical scenario approach given the unpredictable nature of the economic climate and future funding sources. The strategy for Caltrain should be to begin with the Status Quo scenario and advance to the Moderate Growth, Enhanced, or Build out scenario when critical milestones are reached. Critical milestones would include securing additional capital and operating funds. Because the first five years of the capital program are financially constrained in all scenarios, there is some flexibility with regard to securing funds to meet the projected shortfalls.
- Financial Strategy:** Should Caltrain continue with annual review by utilizing the "pay as you go" approach or strive for long-term stability by utilizing innovative finance techniques?

Given the uncertainty of the "pay as you go" approach and the complexities it creates when planning and coordinating future improvements, Caltrain should strive for long-term stability through dedicated funding sources and innovative techniques. This strategy is in line with the fifth guiding principle, which is to "develop a solid financial foundation that ensures long-term sustainability." Securing dedicated funding sources will enable Caltrain to meet projected funding shortfalls, plan future service and capital improvements, and implement the improvements in a timely manner. It will be critical for shifting from the Status Quo or Moderate Growth to the Enhanced or Build-out scenario.

- Service Levels:** Should service levels be determined by financial resources or should it be market-driven?

Service levels must be tied to productivity and public demand, yet balanced with funding availability. Good information on market demand is necessary to determine the service characteristics that are desired by the public and to prioritize service improvements as funding becomes available. Because service improvements sometimes require capital projects, the availability of capital funding can directly affect service levels.
- System Rehabilitation:** Should Caltrain follow a normalized rehabilitation and replacement schedule or an accelerated schedule?

Capital replacement and rehabilitation must not be deferred, but should be implemented in the most cost-effective manner. When opportunities arise, rehabilitation should be accelerated to prevent a situation of deferred maintenance, which can greatly increase maintenance costs. It is critical to balance rehabilitation with other improvements in the capital program.
- Electrification:** Should electrification be deferred until funding is available or should design continue?

Design for the electrification project should continue and should be factored into all improvement projects along the right-of-way. Phasing of implementation should be part of the design development. A funding plan must be created in order to implement the project and avoid further delays.
- Capacity Improvements:** What level of capacity improvements should Caltrain invest in to improve headways and reliability of service in the peak periods?

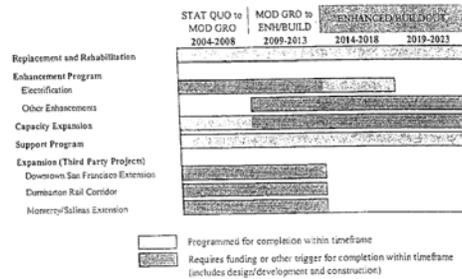
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FROM PRINCIPLE TO POLICY

Capital improvements that expand system capacity, such as adding additional tracks, must be tied to service objectives, and must be balanced with other projects in the capital program. Caltrain should explore the most cost-effective means for improving service before investing in capacity expansion.

Snapshot of the Continuum and Future Improvements

Based on the policy approach outlined above, a conceptual schedule was developed for the capital improvements that can be expected in the next 20 years. The following chart provides a snapshot of what the capital program will include. The projects or programs that depend on service and financial triggers, such as establishing dedicated funding sources, are distinguished from ongoing programs such as rehabilitation, which are almost completely funded.



Projections of revenue availability are based on past experience and reasonable estimates of future events. These revenue projections assume that all of the local matching funds identified in the financial plans will be approved annually by Caltrain's three member agencies.

As shown in the header row of the chart, Caltrain could begin with the Status Quo scenario and shift to the Moderate Growth scenario within the first five years, once funding for identified shortfalls is secured and a funding plan for electrification is developed. By the end of the first five years, it will be determined whether or not high-speed rail will be constructed along the Caltrain corridor. In the second five-

year period, Caltrain could shift from the Moderate Growth scenario to either the Enhanced or Build out scenario, depending on the status of the high-speed rail project. This scenario shift from the Moderate Growth scenario would require Caltrain to secure operating and capital funds for the Enhancement and Capacity Expansion programs. By the second half of the 20-year period, Caltrain would be in the Enhanced or Build out scenario.

Existing sales tax measures (Measure A) in San Mateo and (Measure A) Santa Clara Counties and a new sales tax measure (Proposition K) in San Francisco County provide funds for Caltrain capital projects. Two upcoming ballot measures that would provide funding for enhancements and capacity expansion are the reauthorization of the San Mateo County sales tax (November 2004) and the high-speed rail bond measure (November 2006 or 2008). Revenue from the San Mateo County sales tax would help to meet most of the \$220 million capital shortfall in the Moderate Growth scenario. Any additional funding sources could be used toward achieving improvements included in the Enhanced scenario. If the high-speed rail bond measure passes, Caltrain would be positioned to shift into the Build out scenario by the second five-year period.

The following describes the capital program according to the scenario approach outlined above:

Replacement and Rehabilitation:

- Ongoing throughout 20-year period independent of scenario. May be accelerated in the Enhanced and Build-out scenarios. Full funding has been identified for the Replacement and Rehabilitation program in the Status Quo and Moderate Growth scenarios. Over ninety-five percent of Replacement and Rehabilitation funding sources have been identified for the Enhanced and Build out scenarios.
- Major programs include replacement and overhaul of rolling stock and rehabilitation of track, bridges, tunnels, signals and grade crossings. Replacement of rolling stock must be coordinated with the timing of the electrification project (see Enhancements), which will require the purchase of new electric locomotives. Platform improvements at key stations to remove the hold-out rule are included.

Enhancement Program:

- Electrification project completed within the first ten years. Full funding has been identified for the project in the outer years of the 20-year time period.

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THE FUTURE SCENARIOS

A funding plan to bring all dedicated funds forward must be developed in order to implement the project within the ten-year time frame.

- Other enhancements, such as improved station access and customer amenities, will require additional funding.

Capacity Expansion

- Funding has been identified in the first five years for capacity expansion projects, which include grade separations, track and signal construction, and station improvements. Additional capacity expansion may be necessary to substantially improve service levels, and will depend on demand for service and the availability of funds.

Support Program

- The support program consists of project development and capital program development. Full funding has been identified for the next 20 years.

Regional Extensions

- Regional extensions include the Downtown extension to a rebuilt Transbay Terminal in San Francisco, the Dumbarton Rail Corridor, and the extension to Monterey and Salinas. These are considered third party projects whose capital costs are not included in the Capital Plan. While they are all currently partially funded and not included in the Status Quo or Moderate Growth scenarios, it is assumed that planning and design will continue and that they will be implemented within the next 10 years.

CAPITAL PLAN OBJECTIVES

The Capital Improvement Plan consists of a wide array of improvements, categorized by Replacement and Rehabilitation, Enhancements, and Support Programs. Regional extensions are categorized as Third Party projects. The Capital Plan supports the Service Plan by including improvements that are necessary to implement the service goals of each scenario. The main objectives of the Capital Plan are to:

- Identify the magnitude of system rehabilitation and replacement
- Identify the improvements required to realize the service goals
- Develop conceptual cost estimates of proposed capital programs
- Develop techniques for implementing cost-effective capital improvement programs

Replacement and Rehabilitation projects include improvements needed to bring the railroad into a good state of repair and to continue scheduled replacement of infrastructure and rolling stock. The major projects in this category are bridge rehabilitation, rolling stock overhaul and replacement, and track rehabilitation, which comprise two-thirds of the approximate \$900 million replacement and rehabilitation program (in 2003 dollars). Also included is the reconstruction of stations to eliminate the hold-out rule at most stations. The replacement and rehabilitation needs are generally consistent between scenarios. Any variations are due to reconstruction projects that occur under the enhancement program and defer the need for replacement.

Enhancement projects include upgrades to the system, new construction, and amenities. The major projects in this category include electrification and improvements related to capacity expansion, such as grade separations and track construction. Capacity expansion projects can include track rehabilitation as well as new construction and are necessary to increase express service in the peak periods. The capacity expansion projects are typically packaged together because it is more cost-effective to implement them simultaneously.

The cost of the Enhancement program varies widely between the scenarios and depends primarily on the inclusion of electrification, and the extent of capacity expansion along the corridor. Due to inflation, the timing of projects will also affect costs, however, only constant dollars (2003) are shown in the Strategic Plan. In the case of electrification, the timing and coordination with other improvements is also critical. Estimates show that electrifying the railroad prior to the construction of a grade separation can increase capital costs (of electrification and the grade separation) in the vicinity of the grade separation project by 65 percent.



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THE FUTURE SCENARIOS

The Support Program includes capital program development and project development.

Regional Extensions include the extension to Downtown San Francisco to a rebuilt Transbay Terminal, the Dumbarton Rail Corridor, and the extension to Monterey/Salinas. These extensions are considered to be third party projects, and their capital costs are not included in the Caltrain Capital Improvement Plan. Additional operating costs associated with the extension to Downtown San Francisco have been included in the Enhanced scenario beginning in 2010 and Build out scenario beginning in 2014. Operating costs that would be incurred by the Joint Powers Board for the Dumbarton and Monterey/Salinas projects have not been determined.

The financial, service, and capital characteristics of the scenarios are summarized in Tables 3 and 4 and are described further on the following pages, followed by a comparison and evaluation of all three scenarios. All costs and revenues are shown in 2003 dollars and shortfalls do not include potential revenue from innovative funding sources.

Table 3: Summary of Scenario Characteristics – Status Quo and Moderate Growth

	STATUS QU/O	MODERATE GROWTH
FINANCE (in 2003 \$)		
Operations		
Farebox Revenue	Historical	Some Growth
Member Contributions	Stabilized*	Stabilized* or Decrease
Capital		
Federal/State/Local	Historical	Historical
San Francisco Sales Tax	Through 2034	Through 2034
San Mateo Sales Tax	Through 2008	Through 2008
Santa Clara Sales Tax	Through 2036	Through 2036
High Speed Rail Bonds	None	None
Innovative Techniques	None	None
SERVICE by 2023		
Express Service Goal	10 trains/weekday one-hour headways	20 trains/weekday one-hour headways
Weekday Total Trains	86	100
Saturday/Sunday Trains	32/30	32/30
Shuttle buses (station access)	45	59
Customer Amenities	Low	Low
Average Weekday Ridership	43,700	59,600
Annual Ridership	14,369,000	19,484,000
Annual Operating Cost Avg/Total	\$83M / \$1.67B	\$90M / \$1.81B
Annual Member Contrib. Avg/Total	\$44M / \$873M	\$44M / \$872M
CAPITAL (in 2003\$)		
Replacement & Rehabilitation	Same Rehabilitation needs in all scenarios	
Capacity Expansion	North quadrant (SM Country grade separations)	North and (partial) South quadrants by 2011
Electrification (Revenue Service)	None	2018
Regional Extension (Third Party Projects)		
Downtown San Francisco	No	No
Dumbarton	No	No
Salinas/Monterey	No	No
Calif. High Speed Rail	No	No
Total Capital Program Cost	\$1.151 Billion	\$2.000 Billion
Shortfall (without innovative sources and HSR bonds)	\$0M (Assumes \$159M local match)	-\$217M (Assumes \$164M local match)

Note: Some figures may be revised once the Service and Capital Plans are finalized.
 * Member contributions that are stabilized are constant year-to-year with the exception of increases due to inflation.

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THE FUTURE SCENARIOS

THE FUTURE SCENARIOS

Table 4: Summary of Scenario Characteristics – Enhanced and Build-out

	ENHANCED	BUILD-OUT
FINANCE (in 2003 \$)		
Operations		
Farebox Revenue	Growth	Growth
Member Contributions	Growth	Growth
Capital		
Federal/State/Local	Additional	Additional Plus
San Francisco Sales Tax	Through 2034	Through 2034
San Mateo Sales Tax	Through 2029	Through 2029
Santa Clara Sales Tax	Through 2036	Through 2036
High Speed Rail Bonds	None	Passes in 2006 or 2008
Innovative Techniques	Yes	Yes
SERVICE by 2023		
Express Service Goal	36 trains/weekday half-hour headways	36 trains/weekday half-hour headways
Weekday Total Trains	136	138
Saturday/Sunday Trains	32/32	32/32
Shuttle buses (station access)	78	78
Customer Amenities	Medium-High	High
Average Weekday Ridership	69,400	72,100
Annual Ridership	22,750,000	23,626,000
Annual Operating Cost Avg/Total	\$109M / \$ 2.18B	\$105M / \$2.09B
Annual Member Contrib. Avg/Total	\$57M / \$1.13B	\$53M / \$1.06B
CAPITAL (in 2003\$)		
Replacement & Rehabilitation	Same Rehabilitation needs in all scenarios	
Capacity Expansion	North, Central, and South quadrants by 2013	Entire route four-tracked and grade separated by 2016
Electrification (Revenue Service)	2008	2014 or earlier
Regional Extension (Third Party Projects)		
Downtown San Francisco	2010	By 2014
Dumbarton	Yes	Yes
Salinas/Monterey	Yes	Yes
Calif. High Speed Rail	No	By 2016
Total Capital Program Cost	\$2.490 Billion	\$4.972 Billion
Shortfall (without innovative sources and HSR bonds)	\$679M (Assumes \$181M local match)	-\$3B (Assumes ~\$180M local match)

Note: Some figures may be revised once the Service and Capital plans are finalized.

The Build-out Scenario

Objective: Capture a significant market share of trips by providing enhanced “world class” service, complemented by the intra-state connectivity and amenities offered by the connection to High-Speed Rail.

General Characteristics: The Build-out Scenario is the “ultimate” future scenario for Caltrain and assumes that High-Speed Rail (HSR) would operate on the Caltrain right-of-way. It includes all the characteristics and amenities of the Enhanced Scenario and rail connectivity with all the major metropolitan areas in California via HSR. The Build-out Scenario includes improvements that will allow HSR to operate on the Caltrain right-of-way and assumes major funding resources for these improvements would be made available through high-speed rail bonds and other innovative financing techniques. The characteristics of the Build-out Scenario are summarized in Table 8.

Service Improvements: The Build-out Scenario is very similar to the Enhanced Scenario in many ways in terms of Caltrain service. One of the added service benefits would be that the HSR system would be accessible through two or more Caltrain stations, making statewide intercity rail travel available to Caltrain passengers as early as 2016. Caltrain would function as a feeder system for HSR passengers as well, with transfers taking place between HSR and Caltrain. Additional work must be performed to optimize the integration of HSR and Caltrain. Up to 78 shuttle bus routes would provide station access services.

Capital Improvements: The Build-out Scenario includes several major infrastructure modifications that would allow HSR and Caltrain to operate on the same line. The Build-out Scenario includes a fully grade-separated alignment, and widening of the entire route to accommodate four tracks. Some stations would have to be relocated or reconstructed. Platform configurations would have to be optimized to accommodate HSR and Caltrain. A new signal and communications systems would also be required. The electrification project and extension to Downtown San Francisco begin operation by 2014 at the latest, but could be accelerated depending on the coordination with other projects such as grade separations and track capacity improvements related to HSR. In this scenario, capacity expansion projects including track rehabilitation, bridge construction, grade separations, signal construction, station improvements, track construction and tunnel construction comprise approximately \$3 billion (in 2003 dollars) of the total expenditures.

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THE FUTURE SCENARIOS

Financial Resources: The Build-out Scenario includes the enhanced levels of funding in the Enhanced Scenario plus new sources of funding, primarily from the proposed High Speed Rail bond measure scheduled for voter consideration in November 2006. While the High Speed Rail bonds would not supplant other innovative financing techniques, they would guarantee a significant portion of funds for major Caltrain improvements. Revenues from high-speed rail bonds or potential innovative sources are not included in the estimates of capital shortfalls.

Passenger Experience: The total number of system improvements included in the Build-out Scenario would be greater than in the other scenarios. In addition to the passenger experience benefits of electrification and service extensions, the Build-out includes extensive grade separations, track capacity improvements, and station reconstruction that will dramatically affect the passenger experience. A grade-separated route will increase service reliability, reduce delays, improve safety, improve local pedestrian and traffic circulation, and reduce noise. Additional track capacity provided by four-tracking will allow the flexibility required for high levels of express service. With statewide High-Speed Rail service available in 2016, it is anticipated that regional and intrastate connectivity will be greatly improved.

Key Findings: In the absence of constructability issues, funding for High-Speed Rail could accelerate the timing of many improvements along the Caltrain route. It is projected that ridership and farebox revenues will grow, however, the full potential of this growth would probably be realized outside of the 20-year time horizon of this plan. Ridership is projected to increase by over 220 percent between 2004 and 2023, which does not include potential ridership gains from transfers between HSR and Caltrain. Operating costs and member agencies contributions are expected to increase, but will depend ultimately on how the systems are operated and coordinated.

The capital program totals approximately \$5 billion and will result in a \$3 billion shortfall. The shortfall does not include the potential revenues from high-speed rail bonds or other innovative financing techniques.

Table 8: Build-out Scenario Characteristics Summary

SERVICE	Existing	2005	2010	2015	2020	2023
Weekday Express Trains	0	12	18	24	36	36
Weekday Limited Trains	14	37	40	40	48	51
Weekday Local	62	39	40	40	48	51
Weekday Total Trains	76	88	98	104	132	138
Saturday/Sunday Trains	0	32/30	32/32	32/32	32/32	32/32
Shuttle Buses (station access)	40	42	52	62	72	78
Average Weekday Ridership	28,000	30,900	40,900	50,700	64,100	72,100
Annual Ridership (Caltrain)	7,362,000					23,626,200

OPERATIONS (Million 2003\$)	2004-2008	2009-2013	2014-2018	2019-2023	TOTAL
TOTAL Operating Costs *	425.0	458.5	567.0	643.1	2,093.6
Operating Revenue					
Farebox	148.7	196.5	245.8	304.8	895.9
Other	39.4	31.7	34.1	36.6	141.8
Member Contributions (all)	236.9	230.4	287.1	301.7	1,056.1
TOTAL Operating Revenue	425.0	458.5	567.0	643.1	2,093.6
Avg Annual Member Contributions (all)	47.4	46.1	57.4	60.3	52.8
CAPITAL (Million 2003\$)	2004-2008	2009-2013	2014-2018	2019-2023	TOTAL
Maintenance Facility (Committed Project)	53.0	0	0	0	53.0
Rehabilitation & Replacement	151.3	285.1	250.8	186.5	873.7
Enhancements	232.6	804.9	2,945.0	27.9	4,010.4
Support	6.5	6.0	11.5	11.0	35.0
TOTAL Capital Costs	443.3	1,096.0	3,207.3	225.4	4,972.0
Average Annual Cost	88.7	207.9	640.5	45.1	245.5
Capital Funding	-	-	-	-	-
Federal	201.3	266.2	302.0	145.3	914.7
State	18.0	6.0	76.5	11.0	111.5
Local Match (Member Agencies)	43.8	57.7	51.5	27.4	180.3
Other ^b	179.1	13.7	525.8	0	718.6
TOTAL Capital Revenue	442.1	343.6	959.8	183.7	1,929.1
Surplus / Shortfall	(1.3)	(752.4)	(2,247.5)	(41.7)	(3,042.9)

Note: Some figures may be revised once the Service and Capital Plans are finalized.

* Operating costs in the first five-year period are lower because the first year includes service levels of 16 trains per day (no express service). Operating costs include electrification and extension to Downtown San Francisco starting in 2014.
^b "Other" Capital Funding consists of funds from remaining San Mateo Measure A minus local matching funds, San Mateo Reauthorization, and VTA 2000 Measure A. Note: It also includes funds from CARB/AB424 and Salvage Value for diesel locomotives replaced with electric locomotives.

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Response to Comments of Ian B. McAvoy, Chief Development Officer, Caltrain, August 30, 2004 (Letter AL054)

AL054-1

Acknowledged. The Authority has identified the Caltrain (shared use) option as the preferred HST alignment for serving San Francisco and the Peninsula. Please also see standard response 6.2.1.

AL054-2

Acknowledged.

AL054-3

Acknowledged. The Authority has identified the preferred technology alternative for the proposed HST system as state-of-the-art electrically powered (overhead catenary), high-speed, steel-wheel-on-steel-rail technology, including an assumption that the system would use 2 X 25 KV Overhead Catenary. The Authority will continue to coordinate with the Caltrain JPB should the HST proposal move forward.

AL054-4

The Authority is aware of the Caltrain Strategic Plan and it was taken into consideration in the development of the No Project Alternative to the extent that any of the specific improvements in the Strategic Plan scenarios meet the criteria for inclusion in the No Project Alternative (see Appendix 2C: No Project Alternative Projects Funded for Intercity and Freight Rail in the State of California). The Modal Alternative is comprised of only intercity highway and aviation infrastructure improvements. Please also see response to Comment AL054-11.

AL054-5

Acknowledged. See standard response 2.7.3

AL054-6

Acknowledged.

AL054-7

Based on the alignment and technology options identified as preferred in the Final Program EIR/EIS (i.e., Caltrain Corridor and the LOSSAN Corridor), the Authority will develop performance criteria for shared use operations in conjunction with Caltrain and other owner/operators involved. The criteria will be developed to guide the subsequent project level engineering and environmental review in these shared use segments.

AL054-8

Acknowledged. Neither the Draft Program EIR/EIS, nor the Final Program EIR/EIS makes any assumption that, "CAHSR service could be initiated only after the completion of the system from San Francisco to Los Angeles". Please see standard response 10.1.7.

AL054-9

Acknowledged. Please see standard response 6.3.1.

AL054-10

Acknowledged. Please see standard response 2.35.1.

AL054-11

Section 3.17 "Cumulative Impacts Evaluation" of the Final Program EIR/EIS is intended to account for the potential impacts of the proposed HST system together with impacts from other reasonably foreseeable projects/actions and has been revised to include the Build-Out development scenario, which includes the Caltrain Electrification Program and the Transbay Terminal/Downtown Extension Project. This scenario represents the most comprehensive and likely infrastructure and system improvements to be implemented in conjunction with the HST Alternative.

AL054-12

The technical reports which include ridership and revenue by segment were referenced in Chapter 2 of the Draft Program EIR/EIS (page 2-7) as well as Chapter 12 "References". The program EIR/EIS identifies potential impacts to transit at a broad level. Please see Section 3.1 of the Program EIR/EIS under "Transit, Goods Movement and Parking". Detailed analysis of the projected ridership effect on secondary public transportation providers is beyond the scope of this program EIR/EIS process. Should the HST proposal move forward, this would be investigated as part of more detailed project level analyses. Please also see response to Comment AL053-8 and AL053-9.