PUBLIC WORKS DEPARTMENT

Council Meeting Date: August 23, 2011
Staff Report #: 11-149

Agenda Item: # I2

INFORMATION ITEM: High Speed Rail Briefing Information Booklet

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This is an information item and does not require Council action.

BACKGROUND

Established in 1996, the California High Speed Rail Authority is charged with planning, designing, constructing, and operating a state-of-the-art high speed train system. The Authority is governed by a nine-member Board; five members are appointed by the Governor, two by the Senate Rules Committee, and two by the Speaker of the assembly.

The High Speed Rail system as a whole would serve San Diego to Sacramento, including other major cities in-between. A branch of the system would separate and run from the Central Valley to the San Francisco Bay Area. The High Speed Rail system is planned to access San Jose as well as San Francisco, with other local stops.

Staff was requested by the High Speed Rail Council Subcommittee to prepare a briefing information packet for the Council members and others. The purpose of the information packet (Attachment A) is to inform the Council of the City's efforts to date regarding High Speed Rail as well as provide information from legislators, other organizations and agencies relating to the High Speed Rail project. The information packet is a compilation of material to provide both a historical perspective of High Speed Rail issues as well as a resource to provide an overall perspective on the City's policy positions.

Staff prepared a draft table of contents for the subcommittee to review and comment. The comments from the subcommittee were incorporated into the information packet that is being submitted to Council.

ANALYSIS

The information packet would provide a useful tool for new Council members and the public to use as a reference on activities the City and other agencies have conducted to date regarding High Speed Rail. It also provides information from other agencies, such as the Legislative Analyst Office, pertaining to their peer review of the High Speed Rail Authority.

IMPACT ON CITY RESOURCES

Transmittal of the information packet has no direct impact on City resources.

POLICY ISSUES

No policy issues are raised in this report.

ENVIRONMENTAL REVIEW

As an information report, environmental review is not required.

Atul Patel, P.E.
Senior Transportation Engineer

Charles W. Taylor, P.E.
Interim Public Works Director

PUBLIC NOTICE: Public notification was achieved by posting the agenda, with this agenda item being listed, at least 72 hours prior to the meeting.

ATTACHMENTS: A. High Speed Rail Information Packet - August 23, 2011

City of Menlo Park, CA

High Speed Rail Information

August 23, 2011

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Draft Menlo Park City Council High Speed Rail Subcommittee Mission Statement, March 24, 2009

ATTACHMENT A

****DRAFT****

Menlo Park Council High Speed Rail Subcommittee Mission Statement

The Council High Speed Rail Subcommittee will advocate ways to reduce the impacts of HSR in Menlo Park. The Subcommittee will ensure all voices are heard and that thoughtful ideas are generated and alternatives vetted. It will collaborate with other jurisdictions in support of regional consensus of matters of common interest related to High Speed Rail. Additionally, the subcommittee will support Council decision making on High Speed Rail with information, research and other expertise.

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Letter: Heyward Robinson, Mayor of the City of Menlo Park to California High Speed Rail Authority – April 3, 2009 – City of Menlo Park Comments on the Scope of the EIR/EIS for the San Francisco to San Jose Segment of the High Speed Train

HEYWARD ROBINSON
MAYOR

RICHARD CLINE
VICE MAYOR

JOHN BOYLE
COUNCIL MEMBER

ANDREW COHEN
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KELLY FERGUSSON
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CITY OF MENLO PARK

701 LAUREL STREET, MENLO PARK, CA 94025-3483
www.menlopark.org

April 3, 2009

California High Speed Rail Authority
Attn: California High Speed Train
Bay Area High Speed Rail EIR/EIS Notice of Preparation
925 L Street, Suite 1425
Sacramento, CA 95814

Subject: City of Menlo Park Comments on the Scope of the EIR/EIS for the San Francisco to San Jose Segment of the High Speed Train

Members of the Authority:

Thank you for the opportunity to provide comments on the Scope of the Environmental Impact Report/Environmental Impact Study (EIR/EIS) for the San Francisco to San Jose segment of the High Speed Train (HST) system.

The City of Menlo Park is concerned about the impacts to the community and wants to find the best way to minimize those impacts. The following information should be analyzed in the EIR/EIS to make a determination on the best way to construct the project on the Peninsula:

1. Grade Separation Alternatives - The EIR/EIS needs to evaluate all grade separate options within Menlo Park including a full trench, partial trench, tunnel, full elevated, and split alternatives. Grade separations on the Caltrain mainline will create impacts because of the constrained nature of the development in Menlo Park as well as the presence of the historical Menlo Park Train Station Depot building. One likely alternative for grade separation would include raising the tracks. This particular alternative has another unique issue of creating a "wall effect" within the community and dividing the City. A trench or tunnel alternative would significantly lessen the impacts in the City. (The tunnel alternative could utilize the air rights above the system to offset the cost of the system.) The tunneling option needs to include all tracks on the corridor underground including the Caltrain/Freight system.

2. Economic Impacts - Evaluate the economic impacts caused to any businesses that may be disrupted during construction and ongoing operation of higher train volumes. This analysis should be performed for each alternative and factored into the evaluation process. The analysis should include the temporary construction impacts as well as long term permanent impacts.

3. Trackage Alternatives - Evaluate various trackage alternatives including two, three, and four sets of tracks and including a mixed Caltrain/High Speed Rail System. Identify whether fewer sets of tracks would eliminate the need to grade

separate every crossing. Could some crossings utilize other enhanced safety measures such as four-quadrant gates?

4. Electrification – The appearance of overhead electric power supply for the trains, including the wires, supporting poles, mast arms and insulations, is a matter of significant concern. Also, the electrification system should be compatible with the proposed Caltrain electrification such that two systems do not need to be constructed and maintained. The visual impacts of the electrification system should be clearly analyzed and mitigated. Also, the impacts to trees and other landscaping needs to be analyzed. As an alternative to overhead electrified lines, the use of a third rail type system should be analyzed. This type of system could reduce impacts substantially.

5. Noise and vibration mitigation – The additional noise and vibration caused by the HST needs to be clearly stated and addressed. Any noise and/or vibration impacts need to be mitigated as part of the project. Such measures should be included as integral components of the project. These measures should not create other impacts such as construction of a sound wall that might divide the City and affect the neighborhood feel of the community. Also, evaluate noise impacts and how noise levels would vary with different vertical track alignments (i.e. tunnel, trench, track at grade, elevated track), number of tracks and consider methods to reduce those impacts.

The noise and vibration analysis should be conducted within and specific to the City of Menlo Park. This analysis should include understandable measures of current noise and vibration levels in the area and projected noise and vibration levels after introduction of the HSR system.

Both the decibel level and frequency/duration of noises coming from increased rail traffic should be characterized over a typical 24 hour period. The noise evaluation should consider how noise levels will vary at different distances from the tracks so that those potentially impacted can understand how they would be affected.

6. Visual Impacts - Analyze how visual impacts would vary with different vertical track alignments and sub-options such as berm, wall, pillars, and an open-type structure for raised tracks, number of tracks, electricification and identify ways to reduce visual impacts to the community.

7. Construction Techniques - Analyze construction techniques that reduce impacts to the community and avoid the need for temporary tracks during construction including top-down construction of grade separations and tunneling.

8. Property Take Reduction - Evaluate all options and construction methods to reduce the need for additional right-of-way and property takes and impacts with reasonable assumptions especially when determining whether a full take is required instead of a much smaller portion of the property.

9. Property Value - Analyze the impact to real property values near the rail due to more frequent rail traffic and increased noise, visual impacts and vibration levels from changes in the vertical track alignment and number of tracks. The use of a tunnel and air rights above the tunnel could have a positive effect on property values. This scenario should be analyzed in the EIR/EIS.

10. Freight – Menlo Park is concerned about freight traffic and its impact on residents and traffic in the area. Since the rail lines will be grade separated, which allows for faster train times and reduced vehicular and pedestrian conflicts, the lines would be more easily suited for freight traffic. This may lead to increased freight traffic on rail lines that currently have minimal freight traffic. The EIR/EIS should analyze this issue and evaluate ways to reduce the freight traffic as part of the mitigation for the project. Also, the EIR/EIS should evaluate the elimination of freight service on the Peninsula as a potential mitigation measure to reduce noise, vibration and increase safety of the rail system. The elimination of freight traffic on the rail line could increase design flexibility with the potential for significant impact reductions and cost savings.

11. Caltrain Service - Evaluate the impacts (either positive or negative) on current Caltrain service and its ability to provide improved service (i.e. more frequent stops at the Menlo Park station.)

12. Traffic Impacts - Analyze traffic impacts to City streets impacted during construction, and specifically identify any streets that would be detoured, reduced in capacity or closed during construction or permanently as part of the project. This should include an analysis of additional roadway traffic due to the development and subsequent operation of the High Speed Train and a mid-peninsula rail stop (i.e. Palo Alto or Redwood City). Traffic impacts in Menlo Park should be analyzed using the City's Traffic Impact Analysis Guidelines.

13. Funding – The project intends to use State General Obligation bonds to fund the project. This funding method would create a long-term financial obligation that could impact existing State programs. A detailed cost/benefit and fiscal impact analysis should be provided for the project. Also, additional funding sources should be sought to share the costs of the project. The cost of the project and its impact on other projects in the area need to be analyzed in the EIR/EIS.

14. Pedestrian and Bicycle Traffic – The EIR/EIS should include an analysis of the impact on Pedestrians and Bicycle Traffic including, but not limited to, noise, vibration, reduction in crossings. The use of a trench or tunnel could improve the ability for pedestrians to cross the tracks. The City of Menlo Park's Bicycle Development Plan includes a Bicycle/Pedestrian undercrossing of the rail line. This undercrossing should be analyzed and included as part of the project.

15. Rail Right-of-Way – The required right-of-way for the rail project needs to be clearly indicated for each of the alternatives considered as part of the EIR/EIS.

16. Tree Impacts – The impact on trees needs to be clearly analyzed in the environmental documents. These impacts may include trimming or removal. The removal and/or trimming of trees will create visual, noise, and climate change impacts. All of these impacts and any other impacts need to be clearly analyzed and mitigated.

17. Wildlife – The EIR/EIS should analyzed the impacts on wildlife in the area including, but not limited to, the impact on migration of these animals across the tracks.

18. Climate Change – The EIR/EIS should analyze the impact on the climate change. This analysis should be conducted for the construction of the project and subsequent operation of the system.

19. San Francisquito Creek – The current rail system crosses the San Francisquito Creek at the Menlo Park border with Palo Alto. Potential impacts to the creek's flow capacity or the stability of its banks should be evaluated.

20. Grade of the Track – The analysis should evaluate the use of a steeper slope on the tracks instead of a 1% limitation. The existing train sets including freight can use a slope of greater than 1%. The increased slope may reduce the number of impacts and open up the possibilities for other options to be analyzed.

21. Historic Structures – The Train Station in Menlo Park is a Historic Structure and could be severely impacted by the project. The EIR/EIS should analyze this issue and find ways to reduce and/or eliminate the impacts to these important buildings. Other Historic Structures that are on the Federal and State Registries or are eligible to be listed on the registries should be analyzed in the EIR/EIS.

22. Air Quality – The HSR system will have an effect on air quality and health near the rail. The speed of the train will create additional dust and other particulates blowing in the air. Also the construction equipment used to build the system will have an impact on air quality. The EIR/EIS should evaluate these impacts and recommend any necessary mitigation measures.

23. Caltrain Connectivity – The EIR/EIS should include an analysis of the option to reduce the number of High Speed Trains directly to San Francisco by integrating with the Caltrain System. This hybrid –type system could run as a High Speed Train from Los Angeles to San Jose with limited stops, then convert to an express or Baby Bullet type service along the Peninsula. This service would provide increased passenger usage along the Peninsula, potentially reduce impacts, such as reducing the number of tracks, and provide better integration with existing services. The hybrid-type system should be analyzed, but not limited to, the following options:

- Some High Speed trains terminate in San Jose, then allow passengers transfer to regional transit systems such as Caltrain, BART, VTA buses, etc.
- All High Speed trains travel to San Francisco, but some travel at slower speeds along the Peninsula (i.e. 79 MPH)
- A combination of the options above where High Speed Rail trains that continue up the Caltrain corridor do so at speeds not exceeding the Caltrain services.

24. Increased Travel Time - The EIR/EIS should analyze varying levels of increase to the travel time requirements from Los Angeles to San Francisco. The option of increasing the required time from the 2 hours and 40 minutes would potentially allow other design options to be considered and reduce the impacts from the system as well as provide a potentially significant cost savings for the project.

25. Project-Level Environmental Analysis Guidelines – The City of Menlo Park became aware that a new document providing analysis guidelines and significance thresholds for the EIR/EIS was recently added to the HSR Authority website. The public process that developed this document is unclear. The document should be reviewed through a public process that allows communities to review and provide comments as well as incorporating local guidelines, thresholds, and requirements.

26. Electromagnetic Interference (EMI) – The EIR/EIS should analyze the potential impacts of EMI from the proposed catenary system. The type of interference can affect electronic devices in the area, radio, televisions, etc. Any potential impact and mitigation measures should be clearly identified for project and each option and alternative.

The City of Menlo Park would expect the Authority to consider all of these comments when developing the draft EIR/EIS. The High Speed Rail Authority has indicated that a Scoping Report for the EIR/EIS will be prepared prior to initiation of the EIR/EIS. The City of Menlo Park would encourage this approach and would like to be involved in finalizing the scope of the documents, especially in reviewing and finalizing the alternatives that will be analyzed. Also, the City would like to work collaboratively to develop optimal urban design alternatives that will be included in the scope of the EIR/EIS.

Finally, the City of Menlo Park appreciates the opportunity to provide input on the Scope of the EIR/EIS for the San Francisco to San Jose Segment High Speed Train System. The City looks forward to participating in the EIR/EIS process to review any impacts and proposed mitigation measures within Menlo Park. As previously noted, the City of Menlo Park cannot declare itself in support of the project until the issues described above have been carefully evaluated and addressed through the evaluation and design process.

Sincerely,

Heyward Robinson
Mayor

Cc: Members of the City Council
Quentin Kopp, High Speed Rail Authority Board Chairperson
Fran Florez, High Speed Rail Authority Board Vice-Chairperson
Donna Andrews, High Speed Rail Authority Board Member
David Crane, High Speed Rail Authority Board Member
Rod Diridon, High Speed Rail Authority Board Member
Kirk Lindsey, High Speed Rail Authority Board Member
Curt Pringle, High Speed Rail Authority Board Member
Lynn Schenk, High Speed Rail Authority Board Member
Tom Stapleton, High Speed Rail Authority Board Member
City Manager
City Attorney
Director of Public Works

3

Memorandum of Understanding: City of Menlo Park MOU Among Various Cities for the Peninsula Cities Consortium, April 3, 2009

CONTRACT 783

C09 - 027

MEMORANDUM OF UNDERSTANDING AMONG THE CITIES OF PALO ALTO, MENLO PARK, BURLINGAME, BELMONT, AND ATHERTON FOR THE PENINSULA CITIES CONSORTIUM

This Memorandum of Understanding (this "Agreement,") dated April 15, 2009, is among the Cities of Palo Alto, Menlo Park, Burlingame, Belmont, and Atherton (collectively referred to as "Peninsula Cities").

RECITALS

THIS AGREEMENT is made with reference to the following:

A. The Peninsula Cities of Palo Alto, Menlo Park, Burlingame, Belmont, and Atherton collectively have agreed to come together as a group to form the Peninsula Cities Consortium ("Consortium") for the purpose of providing information and input for the purpose of working collaboratively with the California High-Speed Rail Authority, Caltrain, and any other entity involved, as of the date of this agreement or in the future, in approving and constructing the high-speed train project on the Peninsula (collectively "Rail Authority").

B. The individual Peninsula Cities have come together to form the Consortium because they recognize that, although each individual city faces unique and location-specific challenges with respect to the high-speed train project, all of the Peninsula Cities also share many similar concerns and the strong underlying belief that particular care must be taken to integrate high-speed rail into the living fabric of the Peninsula.

C. The purpose of the Consortium is to work toward collective policy and procedural positions to represent the united interests shared by all Peninsula Cities, while also supporting each city in achieving goals and solutions appropriate to their individualized location and needs.

D. The Consortium desires to inform the Rail Authority of its concerns about environmental issues including, but not limited to, comments about the Environmental Impact Report/Environmental Impact Statement to be prepared pursuant to the California Environmental Quality Act and the National Environmental Policy Act.

E. While all of the Peninsula Cities may have different points of view on some issues, this Agreement outlines a set of objectives that are common to all Peninsula Cities. The Consortium intends to speak as one voice on these and other issues of mutual agreement concerning the future of the High-Speed Rail.

F. The Consortium's intent is to be the principal representative of the Peninsula Cities on all common interests concerning High-Speed Rail.

G. The Peninsula Cities continue to support Caltrain and its efforts to upgrade its rail service on the Peninsula and intends to supplement Caltrain's role regarding high-speed train service by providing more direct interaction with the cities potentially affected by High-Speed Rail.

NOW, THEREFORE, the Peninsula Cities Consortium hereby agrees as follows:

1. This Agreement shall create the Peninsula Cities Consortium whose purpose shall be furthering the Peninsula Cities' mutual interests by conveying their opinions, input and information to the Rail Authority, while also supporting each city in achieving goals and solutions appropriate to their individualized location and needs.

2. The members of the Peninsula Cities Consortium agree to the following objectives:

a. The Rail Authority should consult with and obtain input from the Peninsula Cities Consortium prior to and throughout designing, analyzing and determining the final alignment of the High-Speed Rail through the Peninsula Cities.

b. The Rail Authority should consult with the Peninsula Cities Consortium in order to determine the range of project alternatives and mitigation measures to be evaluated in the Environmental Impact Report.

c. The Rail Authority should consult with the Peninsula Cities Consortium in order to determine the ultimate design of the train tracks, equipment, and technology.

d. The Rail Authority should consult with the Peninsula Cities Consortium in order to determine where the High-Speed Rail shall be located; be it underground, in a trench or any other design. The Rail Authority should evaluate the full range of grade options. The final design should minimize the impacts upon local communities and incorporate best practices of urban design ideas from rail communities around the world.

3. The Mayor of each participating City shall appoint one member and two alternates. The alternates may attend the meeting with the voting member, but each City will have one vote. One of the alternates may be a staff member of the City. The member and at least one alternate shall be an elected member of the governing body of the City.

4. Voting shall be by a majority vote of all Consortium Cities eligible to vote. A majority vote by all Cities eligible to vote is required to set the policy for the Consortium. However, each individual City may choose to take a policy position which is independent of the Consortium, and positions taken by the Consortium shall not be binding on any City.

5. The Consortium shall be established after five cities have formally agreed to join the Consortium. Once established, the Consortium shall select a Chair and a Vice Chair. The Chair shall call and chair each meeting and is appointed to speak on behalf of the Consortium consistent with the principles listed above. The Vice Chair shall serve in the event that the Chair is unavailable. The term of the Chair and Vice Chair shall be one year from the original date of election. The Chair and Vice Chair shall be from different cities and must be elected officials.

6. The Chair may appoint subcommittees which shall study issues and report back to the Consortium to further additional policy positions.

7. Any City may join the Consortium at any time upon approval of this Agreement by its City Council, and any City may withdraw from membership at any time by providing notice to the Chair.

8. A quorum shall consist of 50% of the member cities plus one.

9. This Memorandum of Understanding ("M.O.U.") does not create a new or separate legal entity, joint venture or Joint Powers Authority. The M.O.U. is an agreement amongst cities to work together utilizing their own resources.

10. This Agreement may be entered into in counterparts each of which shall be deemed an original, but all of which together shall be deemed an entire Agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first set forth above.

CITY OF PALO ALTO

By: _____
Mayor

By: _____
City Manager for City of Menlo Park

APPROVED AS TO FORM:

_____
City Attorney

CITY OF MENLO PARK

By: _____
Mayor

By: _____
City Manager for City of Palo Alto

APPROVED AS TO FORM:

_____
City Attorney

CITY OF

By: _____
Mayor

By: _____
City Manager

APPROVED AS TO FORM:

CITY OF BRISBANE

By: _____
Mayor, W. CLARKE CONWAY

By: _____
City Manager, CLAYTON L. HOLSTINE

APPROVED AS TO FORM:

_____
Harold S. Toppel, City Attorney

City Attorney

CITY OF BURLINGAME

By: _____
Mayor

By: _____
City Manager

APPROVED AS TO FORM:

_____
City Attorney

City Attorney

CITY OF

By: _____
Mayor

By: _____
City Manager

APPROVED AS TO FORM:

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City Attorney

CITY OF

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City Attorney

City Attorney

CITY OF BELMONT

By: _____
Mayor

By: _____ FOR JACK CRIST
City Manager

APPROVED AS TO FORM:

City Attorney

CITY OF

By: _____
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City Manager

APPROVED AS TO FORM:

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City Attorney

CITY OF

By: _____
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By: _____
City Manager

APPROVED AS TO FORM:

City Attorney

CITY OF ATHERTON

By: Jerry Carlson
Mayor

By: _____
City Manager

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CITY OF

By: _____
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By: _____
City Manager

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City Attorney

CITY OF

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Mayor

By: _____
City Manager

APPROVED AS TO FORM:

City Attorney

4

Statement of Principles: City of Menlo Park High Speed Rail, December 3, 2009

City of Menlo Park
Statement of Principles for High Speed Rail

The City of Menlo Park High Speed Rail Subcommittee works to protect and enhance the character of Menlo Park and the community's economic vitality while supporting the conditions needed to maximize the local benefits and the long-term potential of high speed rail (HSR).

- The character of Menlo Park includes:
  - Our connected, walkable, bikeable, safe and accessible neighborhoods, parks, commercial areas and civic center
  - Our vision and specific plan for the downtown and El Camino Real including improved east-west mobility for all modes of travel

- The community's economic vitality includes:
  - The continued success of our small and large businesses
  - The maintenance of our property values
  - HSR responsibly mitigating impacts

- The conditions needed to maximize the long-term potential of high speed rail include:
  - Improvements to east / west connectivity; HSR unifies rather than divides
  - Improvements to local and regional transit
  - Consider all reasonable alternatives including 2 track tunnel/trench bounded by the current Caltrain ROW.

Implied "decision criteria" from these principles might include:

- Does the alternative protect or enhance connectivity/ accessibility?
- Does the alternative protect or enhance walk-ability?
- Does the alternative protect or enhance bike-ability?
- Does the alternative protect or enhance the economic vitality of businesses?
- Does the alternative protect or enhance property values?
- Does the alternative align with / support the El Camino Real / Downtown Specific Plan?
- Does the alternative protect or enhance local transit opportunities?

5

Letter from Mayor regarding comments on HSR ARRA Application, September 16, 2010

RICHARD CLINE
MAYOR

JOHN BOYLE
VICE MAYOR

ANDREW COHEN
COUNCIL MEMBER

HEYWARD ROBINSON
COUNCIL MEMBER

KELLY FERGUSSON
COUNCIL MEMBER

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CITY OF MENLO PARK

701 LAUREL STREET, MENLO PARK, CA 94025-3483
www.menlopark.org

September 16, 2010

Mr. Joseph Szabo
Administrator, Federal Rail Administration
Mail Stop 5, U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, D.C. 20590

Subject: California High Speed Rail Authority Funding Application for the Redefined San Francisco – San Jose Design Build Section ARRA Track 2

Dear Mr. Szabo:

Please consider these comments from the City of Menlo Park as you evaluate the subject funding application. Menlo Park is a key stakeholder with a vested interest in the outcome of the proposed project. We are located approximately 25 miles south of San Francisco. Our City includes a Caltrain station, approximately two miles of tracks, and four roadways that cross the rail corridor at grade. The proposed project will reshape our City, for better or worse, so we are deeply concerned about the potential impacts and proposed design of the rail system.

The City has completed a detailed review of the pending funding application from California High Speed Rail Authority (CHSRA) and found numerous errors, a flawed plan, and poor justification for further award of grant funds based on the program evaluation criteria published by the Federal Rail Administration (FRA). The City of Menlo Park therefore urges the FRA to withhold additional funding for the San Francisco to San Jose segment until the CHSRA completes a responsible analysis of environmental impacts, a sound long-term funding plan, and gains the support of local communities along the San Francisco Peninsula.

Our detailed comments are provided below:

Increased Safety Risks at Roadway Crossings

The HSRA's funding application splits the San Francisco to San Jose Segment into three distinct phases based on geographic areas - 1A, 1B and 2. Menlo Park is in the mid-peninsula segment defined as Phase 2 – Completion of the Line. Phase 2 is defined as a future phase that is not part of the application (with the exception of electrification and positive train control systems). As stated in the application, the Phase 2 segment between Redwood City and Mountain View would not include grade separations until some future undefined time.

The application states on page 7, that: "Caltrain will dramatically increase its service from 90 daily one-way trains between San Jose and San Francisco to 162 daily one-way trains by 2025." Attachment 2 to the application states, "Caltrain services running on the project's infrastructure would provide the State's first true 110 miles per hour high-speed intercity rail infrastructure." The combination of increased train frequency combined with higher speeds creates substantially increased risks in Menlo Park and other communities in the mid-peninsula segment.

The HSRA's funding application erroneously states the number of at-grade crossings that would remain in the mid-peninsula. Page 7 of the application in describing Phase 2 states, "Completion of the Line: capacity improvements and removal of the last 5 at-grade crossings on the line in the mid-peninsula..." The mid-peninsula segment is defined as the segment between Redwood Junction, just south of Redwood City and Adobe Creek in Palo Alto. This segment has ten (10) existing at-grade crossings of the Caltrain tracks (Fair Oaks Lane and Watkins Avenue in the Town of Atherton; Encinal Avenue, Glenwood Avenue, Oak Grove Avenue, and Ravenswood Avenue in Menlo Park; and Palo Alto Avenue, Churchill Avenue, East Meadow Drive, and Charleston Road in Palo Alto). Errors of this significance are unconscionable in a funding application of this magnitude. It's clear that the HSRA did no risk or safety analysis when it developed its plan.

The FRA has a clear mandate to consider safety issues as it evaluates funding applications. More frequent, higher speed trains at existing at-grade crossings clearly present a significant reduction in rail safety for the mid-peninsula cities.

Environmental Review and Approval Process

The FRA's guidance document for the High-Speed Intercity Passenger Rail (HSIPR) Program notice (ref. Federal Register Vol. 74, No. 119, June 23, 2009) clearly spell out evaluation criteria for grants under this program. Section 1.3, Selection Process and Priorities, includes a table that specifically lists, "Progress Towards NEPA compliance" as one of the project success factors that would be evaluated.
This is clearly an important criterion since the CHSRA's funding application listed the environmental clearance status for each subsection of its application. Each of the subsections (except one) includes the same notation under environmental

clearance status, "Pending approval as part of EIR/EIS." The exception in the section titled System Electrification. Its environmental clearance status is listed as, "Electrification of Caltrain line, cleared under CEQA and NEPA." Pending approval shows very little progress. In the one area the CHSRA reports some progress, Caltrain electrification, the information in their application is wrong. Menlo Park has followed the Caltrain electrification program very closely since it affects our community. Menlo Park's comment letter on the draft EIR for Caltrain electrification was presented to the Caltrain Joint Powers Board on May 25, 2004. Caltrain circulated a Final EIR in December 2009, but has never certified it.

Section 1.5, Environmental Review and Approval, of the HSIPR program guidelines goes on to clarify that, "NEPA also mandates that all reasonable alternatives be considered, and to that end, an alternatives analysis is typically conducted during the environmental review process." The CSHRA has apparently overlooked this requirement based on its recent actions. The recent Supplemental Alternatives Analysis Report for the San Francisco to San Jose Section published by the CHSRA eliminated several alternatives including bored and cut-and-cover tunnel alternatives through Menlo Park. Menlo Park and other Peninsula cities have consistently urged the Authority to study tunnel alternatives in the project level EIR for the project. Eliminating tunnels at this stage of the project, violates the spirit, if not the letter of both CEQA and NEPA. Tunnels are commonplace in rail projects and represent a reasonable alternative in highly urbanized areas such as the San Francisco Peninsula. The CHSRA's decision to eliminate tunneling alternatives places the project at high risk of protracted litigation over the environmental documents for the project which could cause delay and an uncertain outcome for the FRA. Please advise the CHSRA that without a full environmental review of "all reasonable alternatives" the FRA is unable to provide additional funding. It's not too late for the Authority to put tunneling options back into the environmental review process.

Elevated Track Alternative Degrades Environmental Quality and Livability

The FRA's guidance document for the HSIPR Program includes evaluation criteria for "Environmental quality" and "Livable communities." The CHSRA's funding application is based primarily on, "the more economical Aerial Structure cross-section as opposed to the Trench solution." This is a disconnect. While this does not apply directly to Menlo Park at this time (because we fall into the undefined second phase) we oppose aerial structures. The CHSRA's proposal for aerial structures would substantially degrade environmentally quality and livability in our community. The Authority's funding application should be ranked accordingly for not paying attention to these important criteria.

Reasonableness of Completion Schedule

The FRA's guidance document for the HSIPR Program includes evaluation criteria for "Project readiness" and "Reasonableness of completion schedule." We have examined the schedule included with the CHSRA's funding application which raises several questions. The schedule shows an activity for, "Acquisition of real estate, relocation of households and businesses." The spreadsheet

furnished by the FRA as part of the application package has both numerical start and ending dates and a graphical representation. For the real estate acquisition item the text and the graphics don't match up. The start date is listed as "Oct-11" and the completion date "Jun-13." Based on this the activity would span seven quarters or 21 months. The graphic plot of the same line starts in quarter 3 of 2011 (July 2011) and ends in second quarter of 2012 (June 2012). This is a span of four quarters or 12 months. Based on the FRA's experience, is 12 months (or 21 months) a reasonable timeframe to acquire real estate for a corridor of this length and complexity? The CHSRA has no experience acquiring real estate and in fact has yet to obtain trackage rights for the San Francisco to San Jose segment from the Union Pacific Railroad.

Furthermore, the CHSRA's schedule shows the activity, "Make awards of construction contracts." This activity begins "Oct-11" – the same start date as acquisition of real estate. While we understand this is a design-build project, awarding construction contracts at the same real estate acquisition begins creates a substantial risk of delay and cost overruns.

In summary, the City of Menlo Park does not support the CHSRA's funding application. We urge the FRA to limit additional funding for the San Francisco to San Jose segment until the CHSRA can: evaluate all reasonable alternatives including tunneling; make substantial progress on its environmental review process with a goal of protecting the environment and enhancing livability in communities impacted by the project; and develop a more objective financing plan including more reliable ridership estimates and realistic assumptions regarding future levels of private investment.

Sincerely,

Richard Cline
Mayor

CC: Ray LaHood, Secretary, U.S. Department of Transportation
Michael DeEmilio – Special Assistant to the FRA Administrator, Chief of Staff
Dianne Feinstein, U.S. Senate
Barbara Boxer, U.S. Senate
Anna Eshoo, Congresswoman
Jackie Speier, Congresswoman
Joe Simitian, State Senator
Leland Yee, State Senator
Alan Lowenthal, State Senator
Jerry Hill, State Assemblymember
Joan Buchanan, Assemblymember

6

Resolution: City of Menlo Park Urging the California State Legislature to Exercise Effective Management Control Over the California HSR Authority, October 5, 2010

RESOLUTION NO. 5965

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MENLO PARK URGING THE CALIFORNIA STATE LEGISLATURE TO EXERCISE EFFECTIVE MANAGEMENT CONTROL OVER THE CALIFORNIA HIGH-SPEED RAIL AUTHORITY

WHEREAS, the People of the State of California have declared their intent to establish a high-speed rail system for California, and have provided that the first stage of the system is to link Los Angeles/Anaheim with the San Francisco Transbay Terminal; and

WHEREAS, the people of California have also authorized the state to borrow almost ten billion dollars to help initiate the construction of the high-speed rail system, and have placed responsibility for planning the system in the California High-Speed Rail Authority (or in a successor agency to be named by the State Legislature); and

WHEREAS, the California State Legislature (not the California High-Speed Rail Authority) is ultimately responsible for the successful completion of the high-speed rail project, which is a state project; and

WHEREAS, the State Legislature has been given legislative responsibility for fiscal oversight of the project, and state law specifically provides that the California High-Speed Rail Authority is not able to spend money, or otherwise to carry out planning and implementation work, unless the State Legislature has first approved the appropriation of the money necessary to accomplish that work, as the State Legislature determines in each year's state budget; and

WHEREAS, reports from the State Auditor and the Legislative Analyst's Office have made it clear that the California High-Speed Rail Authority is failing to successfully accomplish the project as specified in Proposition 1A, and that the Authority has mismanaged and is continuing to mismanage the proposed high-speed rail project; and

WHEREAS, the Authority has:

(a) Not based its planning on adequate ridership studies which is critical to proper system design; and

(b) Failed to adequately address flaws of its ridership model identified by the University of California at Berkeley Institute of Transportation Studies; and

(c) Failed to prepare an adequate business plan which identifies the risk of State subsidies for system operations; and

(d) Has spent money for "project level" design work, costing millions of dollars, before the Authority completed the "program level" route selection process for the route to connect the Central Valley to the San Francisco Peninsula; and

(e) Has failed to respond to the legitimate concerns of Peninsula communities, including the City of Menlo Park, about the extremely adverse impacts that the project proposed by the High-Speed Rail Authority would have on the local communities located along the Caltrain right of way; and

(f) Committed to work with cities along the Caltrain corridor to explore a full range of alternatives but recently published a supplemental alternatives analysis report that eliminated consideration of tunneling options, contrary to the wishes of many Peninsula cities; and

(g) Fails to accomplish the high-speed rail project endorsed by the voters in a way that protects local communities of the Peninsula from devastating economic and environmental impacts; and

WHEREAS, the Authority's failures are directly traceable, among other things, to the fact that the members of the California High-Speed Rail Authority Board of Directors do not have experience or expertise in actually designing, building, and operating a high-speed rail project, and

WHEREAS, the Authority's current plans for routing on the San Francisco Peninsula could have devastating impacts on local communities along the Caltrain corridor; and

WHEREAS, it appears that there are feasible alternatives to the Authority's current plan, but the Authority has failed and refused to do a detailed analysis of possible alternatives; and

WHEREAS, the California High-Speed Rail Authority has not completed the investment grade ridership study and financial analysis that will lead to a successful high-speed rail project for California, as mandated by the voters; and

WHEREAS, the City Council of the City of Menlo Park believes that it is imperative that the California State Legislature exercise greater leadership and increasing budgetary control over the California High-Speed Rail Authority, in connection with the management and implementation of the proposed high-speed rail project, and that the State Legislature address all of the concerns outlined in this resolution.

NOW THEREFORE, BE IT RESOLVED the City of Menlo Park hereby declares that it has "no confidence" in the ability of the California High-Speed Rail Authority to carry out a successful high-speed rail project for the State of California, as approved by the voters in Proposition 1A, or to respond to the legitimate needs and concerns of the City of Menlo Park and other local communities along the Caltrain alignment on the San Francisco Peninsula; and

BE IT FURTHER RESOLVED that the City Council of the City of Menlo Park hereby urges the California State Legislature to exercise fiscal and management controls over the expenditures and activities of the California High-Speed Rail Authority, and to maintain continuing and detailed legislative oversight, and to insure:

1. That any high-speed rail project constructed on the San Francisco Peninsula will respond to the legitimate concerns of communities on the Peninsula, including the City of Menlo Park, as expressed to the High-Speed Rail Authority and the Legislature, and that any such project demonstrably avoid the catastrophic economic and environmental impacts that would be caused by the operation of high-speed trains on an elevated structure constructed

through the middle of these vital and thriving communities, with all the attendant noise, vibration, and blight that such a project would cause; and

2. That the California High-Speed Rail Authority fully comply with the financial and management oversight requirements of Proposition 1A, and that decisions about the proposed high-speed rail project not occur unless supported by reliable and accurate ridership and financial analyses demonstrating the actual operational and financial adequacy of the system; and

3. That further expenditures on "project level" planning work on the San Francisco Peninsula be deferred until the ridership projections have been corrected and peer reviewed. Ridership assumptions drive key decisions such as the number of tracks needed on the Peninsula.

BE IT FURTHER RESOLVED that the City Council of the City of Menlo Park hereby urges the California State Legislature seriously consider appointing a successor agency or to replace the current Board membership to p manage the proposed high-speed rail project, as specifically permitted by Proposition 1A, because of the demonstrable failure of the California High Speed Rail Authority properly and successfully to manage and complete the proposed project in conformance with the requirements of Proposition 1A, as adopted by the voters.

I, Margaret S. Roberts, City Clerk of the City of Menlo Park, do hereby certify that the above and foregoing Resolution was duly and regularly passed and adopted at a meeting by said Council on the fifth day of October, 2010, by the following votes:

AYES: Cline, Fergusson, Robinson

NOES: Boyle

ABSENT: Cohen

ABSTAIN: None

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Official Seal of said City on this fifth day of October, 2010.

Margaret S. Roberts

Margaret S. Roberts, MMC
City Clerk

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Letter: Letter: Richard Cline, Mayor of the City of Menlo Park to California State Senator Joe Simitian – October 29, 2010 No Confidence Resolution of the HSR Authority Board

RICHARD CLINE
MAYOR

JOHN BOYLE
VICE MAYOR

ANDREW COHEN
COUNCIL MEMBER

HEYWARD ROBINSON
COUNCIL MEMBER

KELLY FERGUSSON
COUNCIL MEMBER

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Library
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FAX 650.327.7030

Maintenance
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FAX 650.327.1953

Personnel
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CITY OF MENLO PARK

701 LAUREL STREET, MENLO PARK, CA 94025-3483
www.menlopark.org

October 29, 2010

Dear Senator Simitian,

Enclosed is a resolution from the City of Menlo Park regarding the California High Speed Rail Project outlining our concerns with the project as currently envisioned on the San Francisco Peninsula. The resolution expresses our City Council's lack of confidence in the current High Speed Rail Authority Board.

We are asking all State legislators to take a more active role in overseeing the High Speed Rail Project, given the well-documented history of unresolved problems including unreliable ridership estimates and an inadequate business plan. Menlo Park believes leadership under the California High Speed Rail Authority Board has fallen short of what is needed for a successful completion and must be changed to ensure the project enhances Peninsula communities and maximizes the long-term potential of high speed rail.

We are deeply disappointed that measures included in the recently adopted State budget regarding legislative oversight of the project were vetoed by the Governor. Action by the legislature is needed, now more than ever, to shape a High Speed Rail Project that can succeed. Specific goals should be established such as re-examining alternatives based on sound ridership estimates, minimizing property impacts, and working cooperatively with local communities.

A fresh look at the High Speed Rail Project has the potential to reduce costs, build local support, and restore credibility to the decision making process. Please work with us to accomplish these worthy objectives.

Sincerely,

Richard Cline
Mayor

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Report: California High Speed Rail Authority Peer Review Group's summary comments on the California High Speed Rail Authority 2009 Report to the California Legislature, November 18, 2010

RECEIVED
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November 18, 2010

The Honorable John Perez
Speaker of the Assembly
State Capitol
P.O. Box 94849
Sacramento, California 94249-0046

The Honorable Darrell Steinberg
Senate President Pro Tem
State Capitol Building
Room 205
Sacramento, California 95814

Dear Speaker Perez and Senate Pro Temp Steinberg:

Please find attached the California High-Speed Rail Peer Review Group's (Group) summary comments on the California High-Speed Rail Authority's (Authority) 2009 Report to the Legislature (Attachment A). Also please find the Group's full comments (Attachment B) in which all members concur.

The Group appreciates the challenge the state faces in planning and managing a project of such immense complexity and long-time horizon. This is especially true in the current policy climate of budget shortfalls, limitations on spending, and uncertainty as to future federal and state policies and capabilities. It would be a daunting task under the best of circumstances. Meeting the challenge will require a thorough re-assessment of a number of critical engineering, financial, economic, and managerial issues, and will require agreement among the Legislature, the Governor, and the Authority on what the resolution of those issues should be.

If you should have questions regarding the group's comments, please do not hesitate to contact me.

Sincerely,

Will Kempton

Will Kempton
Chairman
California High-Speed Rail Peer Review Group

WK:be

c: Hon. Bob Dutton, Senate Republican Leader
Hon. Connie Conway, Assembly Republican Leader
Hon. Alan Lowenthal, Chair, Senate Transportation and Housing Committee
Hon. Bob Huff, Vice Chair, Senate Transportation and Housing Committee
Hon. Bonnie Lowenthal, Chair, Assembly Transportation Committee
Hon. Kevin Jefferies, Vice Chair, Assembly Transportation Committee
Hon. Curt Pringle, Chair, California High-Speed Rail Authority
Roelef van Ark, Chief Executive Officer, California High-Speed Rail Authority
Members, California High-Speed Rail Authority Peer Review Group

California High Speed Rail Peer Review Group Summary Comments on the California High Speed Rail Authority's 2009 Report to the Legislature

Attachment A

Below are the summary comments by the peer review group on issues as they appear in the High Speed Rail Authority's 2009 Report to the Legislature and other related documents reviewed by the group.

Authority Staffing. Though not an explicit part of the 2009 Business Plan, we are concerned after discussions with the Authority that the staff level now permitted is totally inadequate to oversee a project of this magnitude, no matter what business model is ultimately chosen. One of the dangers in public sector management of major projects is that staffing levels and compensation are not always related to the needs of the job at hand because of bureaucratic restrictions. The existing massive imbalance between the numbers of Authority staff and consultants has been the source of continuing criticism; the problem will be much exacerbated as the project moves into implementation. We urge the Authority, the Governor and the Legislature to ensure that the Authority has access to the staff numbers and compensation needed for managing the project: anything less will ensure major problems of budget control, accountability and schedule. In addition, we suggest that the Authority and Legislature consider other organizational approaches, such as public corporations, that would improve the ability of management to secure adequate staff and reliable funding.

Business Model. The Authority should focus immediately on selection of an appropriate "business model." "business plans," "strategic plans" and "business models" are not synonymous. The business model must be a clear statement by the Authority of the roles to be played by all involved parties concerning the project's ownership, construction, financing and general management. As the project moves toward implementation, the selection of an appropriate business model, though a complex task, will have great bearing on the project's implementation and success.

There appear to be five general business models that might be used in California, though there are many variations due to local conditions. (1) Fully public, mass transit model: using BART as an example, the Authority would acquire all needed property, manage and pay for the design and construction of the system, acquire rolling stock, set fares and manage the operation and maintenance of the system; (2) management contracting, or "gross cost" franchising/concessioning: the Authority would plan, finance and build the project according to the Authority's demand estimates, but contract with a private entity to take responsibility for operating and maintaining it at the Authority's specified demand level; (3) long term "net cost" concessioning: the Authority would plan and construct the system, and concessionaires would then compete for a long term contract under which they would set prices and make demand estimates, furnish rolling stock and operate and maintain the system; (4) separated infrastructure: the Authority would design, finance and construct the system and permit one or more operators to provide rolling stock and operate various services, and the Authority would charge non-discriminatory access fees to all operators, including the HSR operator(s) and other local service providers; (5) essentially private approach: the Authority would acquire right-of-way (ROW), establish a broad system of specifications and award an exclusive concession to a private consortium to design, build, finance, operate and maintain the system based on a long term contract. As the project moves toward

implementation, the model chosen by the Authority should be based on available project finances, private and public costs and benefits, and risk sharing.

Management of Risk and Uncertainty. All "mega projects" such as High Speed Rail (HSR) carry significant risk and uncertainty. Community opposition to the project's proposed alignment between San Francisco and San Jose, as well as the early stage of the system's overall design status (among many other issues) will cause the cost of the project to fluctuate.

Further contributing to the project's uncertainty will be the expected change in the estimated cost variability in each of the project's components. The Authority should make the necessary adjustments in these areas based on the project's stage of development. By doing so, the Authority will provide the public a better understanding of the reliability and variability of the engineer's estimate. Applying traditional mechanisms to the engineer's cost estimate, such as percentage contingencies, etc., will not engender continued confidence in the project. In addition, we encourage the Authority to conduct more detailed and transparent sensitivity analyses of the impact on expected outcomes of variations in demand, revenues, investment costs, operating costs and project timing.

The transfer and allocation of risk is another issue which the Authority needs to assess. In the context of the business model, the Authority should investigate project risks and determine who will bear them along with a justification of why a particular risk allocation model was selected.

The Financial Gap between Currently Available Resources and Total Project Cost. There is now considerable uncertainty and unreliability of federal funding combined with the state's structural deficit, over-reliance on federal funding and budget unpredictability. In light of the public concern over excessive government spending, how will the Authority close the gap between any funding resources and the project's total estimated cost? What will the Authority's course of action be if the funding gap cannot be closed? The group suggests that if the project experiences a shortage of funding resources, it should: (1) concentrate the funds available on completing operable segments; and (2) reassess the business model, given the ability and willingness of the involved parties to raise money. The group has two added concerns related to the operable segment issue and the absence of a credible financial plan. The Authority apparently must now focus federal resources on a single segment, requiring a choice between demonstrating HSR in the short run and independent utility if the project is not completed.

The lack of a clear financial plan is a critical concern. The group fully realizes that developing a credible financial plan is difficult depending, as it does, on a large number of decisions not yet made and on factors far beyond the control of the Authority. In a deteriorating budget climate in which even large and highly beneficial projects are abruptly canceled because of shortage of funds, and in which the likelihood of new large federal funding programs appears small, there is an air of unreality about a plan that includes $17 to $19 billion in "free" federal funding from programs that do not yet exist. The same can be said of the expectation for large local or state funding for stations and area development, when local governments are highly stressed and when the finances of the state are sufficiently weak that a sale of $9 billion in state General Obligation bonds might only be possible (if at all) at unusually high interest rates. This limits the project's credibility with private investors. The demonstration of firm Public Sector financial commitments will be an absolute necessity, prior to approaching sources of private capital. In our discussion with Roelof van Ark, it is clear that the Authority recognizes the

"chicken and egg" nature of the conundrum: the Authority cannot get private investment without a solid prospect that the project will be completed and it cannot complete the project without private investment that would make the project successful.

Demand Modeling and Estimating. The Authority has come under increasing criticism regarding the project's demand and revenue estimates. The issues identified by the Institute for Transportation Studies at the University of California at Berkeley, the Legislative Analyst's Office and the State Auditor's office have raised sufficient concerns with the demand model so as to call into question the project's fundamental basis for going forward. The group recommends that the Authority work with UC Berkeley, the Legislative Analyst's Office and the State Auditor to complete an analysis of any issues regarding the demand models so that a mutually agreed estimate can be reached along with ranges of uncertainty. Failure to arrive at such an agreement will put the project's forward progress in jeopardy.

Need for a Revenue or Demand Guarantee. According to the Proposition 1A bond measure, any public "operating subsidy" is prohibited, making demand or revenue guarantees legally questionable. However, discussion of a revenue or demand guarantee for the private sector in order to attract private investment must be seen in the context of the business model adopted by the Authority. For example, if a private concession were offered to an operator whereby the operator was required to design, build, finance, and operate the system as well as buy rolling stock, much of the demand risk might have to be assumed by the Authority through a revenue guarantee unless the demand estimates were pegged so high that the profitability of the system was beyond a doubt. Conversely, if the system were designed and built by the Authority, with the Authority buying and leasing the rolling stock and not charging the operator for the use of the system, with operator's revenues applied to covering only the operation and maintenance costs, the need for a demand guarantee and subsidy might well not arise.

Obtaining an agreed definition of the term "operating subsidy" has become critical. A recent report, "The Financial Risks of California's Proposed High-Speed Rail Project," has argued that interest payments on State bonds should be considered as a part of operating costs, whereas the Authority has excluded State bond interest (and most other capital costs) from funds to be repaid by the Authority. The Authority should seek clarification on the costs and revenues to be included within the term "operating subsidy." This could significantly affect the legal viability of the project and the choice of business model.

The "Financial Risks" study highlights the confusion between financial analysis, the basis for private involvement, and economic analysis, the basis for public involvement. The study makes a series of critical comments on the 2009 Business Plan and deserves careful attention and response from the Authority, as we share many of the same concerns. The study is, however, limited to financial analysis, while leaving aside all of the reasons – consumer surplus, reduction of congestion on rural and urban highways, airports and airways, reduction of pollution and carbon emissions, and reduction of accident costs, among others – that would be included in an economic analysis to evaluate public involvement in the project. The treatment of public benefits was much more detailed in the 2008 Business Plan than in the 2009 Business Plan. Given the importance of the issue in the overall evaluation of the project, and the close interrelation of public benefits with demand forecasts, we strongly encourage the Authority to include a thorough and updated treatment of public benefits and costs in the 2010 Business Plan and to link these results with the agreed definition of "operating subsidy."

ROW and Alignment Availability. While different types of service can run on the same right of way, the Review Group agrees that freight and high speed rail should not operate on the same track. There remains significant uncertainty in the cost and the availability of ROW as well as alignment issues. While we understand that the level of cooperation has improved, any lack of cooperation, or resistance by Class I Railroads regarding the joint use of urban rail segments as well as the project's need for long and straight alignments, will be problematic. The Authority should recognize the risks involved and the impacts they will have on budgets and project schedules. The Authority must be prepared to finalize an alignment as well as develop an approach which acknowledges the potential of any alignment changes and the risks involved in order to minimize their impact on the project.

Technical, Safety and Seismic Issues. There has been limited information from the Authority regarding such issues as what proportion of the project will be at-grade, in tunnel and/or elevated. These decisions will have significant cost implications. For example, analysis of the cost of the high speed rail project in China revealed that the cost of elevated track was approximately double the cost for at-grade track and the cost of tunnels was double the cost of an elevated configuration. Any decisions made by the Authority in this area will have significant financial implications for the project. The same can be said of train speeds and seismic-related issues. Specifically, train speeds in China, due to safety reasons, mandated that the track be grade separated, either in tunnel or elevated. Also, given the seismic issues in California, larger foundations will be needed, resulting in higher system costs, perhaps by as much as 60 percent. The Authority needs to make a clear statement on these issues.

DETAILED COMMENTS FROM THE PEER REVIEW GROUP
Attachment B

California Law AB 3034 required that a peer review group be established "for the purpose of reviewing the planning, engineering, financing, and other elements of the authority's plans and issuing an analysis of appropriateness and accuracy of the authority's assumptions and an analysis of the viability of the authority's financing plan, including the funding plan for each corridor required pursuant to subdivision (b) of Section 2704.08 of the Streets and Highways Code." AB 3034 states the duties of the peer review group as follows: " "The peer review group shall evaluate the authority's funding plans and prepare its independent judgment as to the feasibility and reasonableness of the plans, appropriateness of assumptions, analyses and estimates, and any other observations or evaluations it deems necessary."
No later than 90 days prior to the submittal to the Legislature and the Governor of the initial request for appropriation of proceeds of bonds authorized by the chapter for any eligible capital costs on each corridor, or usable segment thereof, identified in subdivision (b) of Section 2704.04, other than costs described in subdivision (g), the authority shall have approved and submitted to the Director of finance, the peer review group established pursuant to Section 185030 of the Public Utilities Code, and the policy committees with jurisdiction over transportation matters and the fiscal committees in both houses of the Legislature, a detailed funding plan for that corridor or a usable segment thereof.
The peer review group is required to "report its findings and conclusions to the Legislature no later than 60 days after receiving the plans."

AB 3034 established an 8 member group appointed as follows: two individuals with experience in the construction or operation of high-speed trains in Europe, Asia, or both, designated by the Treasurer; two individuals, one with experience in engineering and construction of high-speed trains and one with experience in project finance, designated by the Controller; one representative from a financial services or financial consulting firm who shall not have been a contractor or subcontractor of the authority for the previous three years, designated by the Director of Finance; one representative with experience in environmental planning, designated by the Secretary of Business, Transportation and Housing; and two expert representatives from agencies providing intercity or commuter passenger trains services in California, designated by the Secretary of Business, Transportation and Housing.

The group currently has six members, including: Walter Bell (appointment by the Treasurer); John Chalker (appointment by the Director of Finance), Diane Eidam (appointment by the Controller), Will Kempton (appointment by the Secretary of Business, Transportation and Housing), Lou Thompson (appointment by the Secretary of Business, Transportation and Housing) and Frieder Seible

(appointment by the Treasurer).[1] Will Kempton has been elected Chairman of the group and John Chalker has been elected Vice Chairman.

The group members first convened on June 17, 2010 to discuss how the work of the group will proceed. Members of the group had met on previous occasions but, lacking a quorum, reached no specific result. In addition, members of the group were asked by the Authority to comment on a consultant's study[2] dealing with organizational issues including the Chief Executive post that has now been filled. Subsequently, the group has convened by phone on July 27, August 25 and September 29th and was briefed on the status of the project by Roelof van Ark on October 1, 2010. The group convened in San Diego on October 27. This communication summarizes the results of all discussions and meetings.

As yet, no requests to use bond funds have been referred to us. We are, however, aware of the Senate Budget Subcommittee hearing that took place on May 24, 2010 concerning the future role and responsibilities of the group.[3]

We have also reviewed a number of reports and documents, including: the Authority's 2008 and 2009 Business Plans; the Legislative Analyst's Office (LAO) 2008 and 2009 analyses of the Business Plans; the California State Auditor's April 29, 2010 report (Report 2009-16) on the status of the project; the Authority's Addendum to the Authority's "Report to the Legislature; December 2009" (adopted April 8, 2010) concerning changes to be made to the 2009 Business plan and responses to comments that had been received on the plan; a memorandum dated March 3, 2010 from then Executive Director Mehdi Morshed to Authority Chairman Pringle entitled "Recent questions about ridership and revenue forecasts;" the University of California at Berkeley's review of the Authority's demand forecasting; a report "The Financial Risks of California's High-Speed Rail Project;" and, the Inspector General's letter report dated October 27, 2010. In addition, some members of the group have, with permission of the Authority, contacted the Authority's consultants for clarification or additional information.

Based on these documents, we have decided that there may be value in a communication from the group. We would like to provide guidance to the Authority on the issues that the group will consider important when evaluating future Business Plans and when we do comment on requests for approval of plans for funding. Finally, this communication responds to the apparent desire of the Senate to have the group meet by August 1, and submit a report to the Legislature by January 1, 2011.

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[1] An additional group member, Eugene Skoropowski was appointed in early 2009 and subsequently resigned in late 2009.
[2] KPMG Organizational Assessment.
[3] See "Hearing Outcomes, Senate Budget and Fiscal review, Subcommittee No. 2, May 24, 2010.

Many of the issues discussed below are identified in the LAO and Auditor's report, though we may approach them from a different point of view. We believe that the appointment of the Chief Executive (Roelof van Ark) and a rapidly growing Authority staff will mean that the Authority will soon need to confront critical issues that have been postponed pending the appointment of the Chief Executive. The issues are: Authority staffing; the Authority's business model for HSR; management of risk and uncertainty; the financial gap between required and available resources; demand modeling and estimating; the need for a revenue guarantee and the prohibition against operating subsidies; right-of-way (ROW) availability issues, especially the use of the Union Pacific ROW in the San Francisco Bay Area; and technical, safety and seismic issues.

Authority Staffing Issues

Though not explicitly addressed as a part of the 2009 Business Plan, we are concerned after discussions with the Authority that the staff level now permitted is totally inadequate to oversee a project of this magnitude, no matter what business model is ultimately chosen. In fact, one of the dangers in public sector management of major projects like High Speed Rail (HSR) is that staffing levels and compensation may not be related to the needs of the job at hand because of unrelated funding or bureaucratic limitations. The massive imbalance between Authority staff and consultants has been a legitimate source of continuing criticism; the problem will be much exacerbated as the project moves into implementation. The future risks in terms of cost control and accountability are very high, and every adverse experience will further decrease the project's credibility at a time when the public seems increasingly concerned about the capability and accountability of government. We believe that a number of the auditing difficulties reported by the Inspector General are the result of this problem. We strongly urge the Authority, the Governor and the Legislature to ensure that the Authority has access to the staff numbers and compensation needed for managing the project. Anything less will ensure major problems of budget management, cost control, project accountability and schedule slippage.

The continuing staffing problem raises a much broader issue that we believe deserves serious consideration: is it appropriate to continue to try to manage this project within the state government framework? It is, of course, possible to plan and effectively manage large construction projects within the California state bureaucracy. The HSR project is, however, a much broader and more demanding undertaking even than major highway and bridge projects now underway. The HSR project will be the largest ever undertaken in the state. It will span many years over which it will need reliable funding not subject to year-to-year budgetary vicissitudes. It will have a very large amount of private sector investment and management. Perhaps most important, the ultimate result will probably be some form of a Public Private Partnership (PPP) based business entity, not just a public agency. Depending on the business model chosen (see discussion below), the project will need unfettered access to a large number of

professionals at levels and with skills far different than those normally needed in the public sector. There are precedents for publicly owned corporations (Amtrak is an example) that provide a much better balance of accountability to the public interest and the flexibility to plan and manage in a commercial way than the public agency format in which the Authority is now mired. We urge the Authority and Legislature to consider the options available for more effective management.

The Business Model for HSR

Although we will discuss a number of points below where we agree with comments submitted by the LAO or the State Auditor, we believe that the proposed business model for the HSR project has not received enough attention and yet is probably the critical organizing principle around which most issues will need to be resolved. By "business model" we do not mean "Business Plans" or "Strategic Plans," or other reports by the Authority. Rather, we view the business model as a clear statement of the Authority's intentions as to the roles to be played by each of the parties in owning, constructing, financing and managing HSR in California. Thus far, the Authority's reports have discussed some of the options for a business model, but are lacking in the decisions that will be needed to establish the actual business model to be deployed.

In fairness to the Authority, it would have been premature to make these decisions prior to the implementation phase of the project. The Authority itself has recognized, however, that the project now has to move beyond planning and promotion to implementation and that will require that the business model for implementation be selected.

Selecting the business model may be the most difficult of the decisions the Authority now faces. Though high-speed railways are technically complex, there is little or nothing in the technology that is seriously stretched by the Authority's plans. Definition of routes and evaluation of environmental options is also a challenge, but no more so than California already faces on many major highway and airport projects. The sheer scale of the project is an issue, but "mega-projects" are increasingly common and the issues are reasonably well understood, though on-the-ground experience suggests caution in believing that results will be identical to projections.[4] What **is** new, at least to the United States and California, is the unique blend of private and public, business and social benefits and costs that the California HSR project will require.

We can define a few potential business models in order to emphasize how the business model interacts with a number of the issues the project now faces. We

[4] See, for example, Flyvbjerg, Bent, Nils Bruzelius and Werner Rothengatter, "Megaprojects and Risk: An Anatomy of Ambition," Cambridge University Press, 2003. See also SYSTRA and MVA Consultancy, "High-Speed rail Development Programme 2008/9," Evaluation Methodology, June 5, 2009, which includes British Government guidance to add 66% to capital cost estimates and 41% to operating cost estimates in order to account for "optimism bias.".

realize that this listing is not complete. Also, these models are simplistic and there are many variations of the models discussed. They do serve to illustrate the interrelationships between the business model and other issues the project faces.

The fully public, mass transit model. In this model, of which BART is an example, the Authority would acquire all needed property, manage and pay for the design and construction of the system, acquire rolling stock, set prices, collect revenues and manage operations including maintenance of rolling stock and infrastructure. This is the model for many public transit systems in the United States. Under this model, all risks would be for the Authority's account, and the Authority would be in position to ensure that prices are set such that the public receives maximum benefit from reduction in emissions and congestion as well as improved safety of rail over alternative modes. This model is often chosen when the benefits of a project are primarily public and revenues are not expected to cover financial costs. However, because the product in this case would be intercity rather than urban travel, the Authority would also be in the position of a public sector agency competing, possibly unfairly, with private sector airlines and bus companies as well as private automobile users.

The management contracting or "gross cost"[5] franchising/concessioning approach. Under this approach, the Authority would plan, build and finance the entire system, but would contract with a separate, usually private, entity to operate and maintain it. A number of short haul UnitedStates. rail passenger systems are operated in this way, including, for example, Caltrain and the Metrolink services where Amtrak serves as a cost-reimbursable operator for the State. It is also the emerging approach for private sector participation in many passenger railways in the European Union (E.U.) The Authority would retain essentially all cost and demand risk, but might be able to transfer some operating cost risk to the operating contractor or franchise (especially if the contract is put out for competition) and might be able to ask the franchise to bring commercial as well as operating expertise to the venture. Depending on the revenue level and the share of revenues the franchise is allowed to retain, there might or might not be an "operating subsidy" or there might even be an operating payment to the Authority.

A long-term "net cost" concession. The Authority would plan and construct a system to the basic capacity level expected by the Authority. Potential concessionaires would compete for a long term (15 to 30 years or longer) exclusive concession to operate the system. The concessionaire would set prices, make demand estimates and determine operating frequency and capacity

[5] Gross Cost franchising essentially means that a public agency owns a facility, specifies tariffs and expected demand, and awards a short-term (5 to 10 year), exclusive franchise to operate the system to a private enterprise. The company takes only the risk of the cost of operating the system at the specified demand level. It is possible under this model to ask the franchise to provide rolling stock, but only when there exists a short term leasing market such as provided by the ROSCOs in the U.K.

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(subject to conditions established in the bid documents) and design and furnish rolling stock and any other commercially important assets. Depending on the commercial potential of the system and the limits set on tariffs, concessionaires might be willing to make substantial positive payments to the Authority, either for construction or for operations, again obviating the need for "operating subsidies." This is the initial model adopted for the suburban systems and Metros in Buenos Aires and Rio de Janeiro and it is similar to the models for operation of longer haul passenger franchises in the United Kingdom (U.K.) Under this model, the Authority would still retain all capital cost risk for the infrastructure, but might be able to transfer at least some of the commercial and operating cost risk, including the cost and the demand risk associated with the rolling stock. Depending on the form in which the concession payments are determined (fixed in advance, share of gross or net revenue, etc.) the Authority could recover some, or possibly a substantial share, of the capital cost of the infrastructure.[6]

The separated infrastructure approach. Under this approach, the Authority would design and construct the infrastructure and then allow (subject to control over schedules and dispatching by the Authority or its agent) a single operator or competing operators along with complementary operators to provide service. The Authority would impose an access charge based on capacity and use factors (monthly reserved train paths, train-miles operated, gross ton-miles operated, etc.). Under this approach, complementary short haul operators such as Caltrain might also pay access charges on an appropriate basis, but otherwise be independent of the Authority. This is the approach adopted by the E.U., though different member countries have adopted different sets of access charges that collect some part or all of the financial costs of the infrastructure.[7] The Authority would still retain essentially all capital cost risk of the infrastructure, including maintenance, and it would have to make decisions as to access charges and priority. On the other hand, it could, if desired, achieve competition **in** the HSR market (not just **for** the market as in exclusive concessions) and could disconnect the operations of essentially local agencies from that of the HSR operator(s). It could also transfer a substantial portion of the demand risk to the operator(s) and could achieve fully commercial operation of the system (in fact, airlines or bus companies might be bidders to operate trains, as is the case in the U.K., Germany and France). Depending on the commercial potential of the market and the access charges set, access charge revenues could make a contribution to recovery of the Authority's capital investment.

An essentially private approach in which the Authority would use its power to designate and acquire a right of way, establish broad system specifications, and then award an exclusive concession to a private consortium to design, build, finance, operate and maintain the system for a specified, usually long (>30 years)

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[6] A version of this model was proposed for California by the SNCF. See SNCF California Study, September 14, 2009.

[7] See, e.g. Thompson, Louis S. "Railway Access Charges in the EU: Current Status and Developments Since 2004," December, 2008, International Transport Forum, Paris.

term, or even permanently. This is in effect the public utility model under which Pacific Gas and Electric (PG&E) operates, except that PG&E has a permanent concession and its monopoly power essentially guarantees a predictable and sufficient demand, whereas airline and road competition would place a much more severe constraint on the behavior of a rail concessionaire. This model could in principle shift almost all the cost and revenue risk to the private sector and, depending on the policies of a regulator (which this approach would require) could generate a contribution to the Authority's investment costs or to State coffers.

There are many variations on the options, many of which are not mutually exclusive. Local governments can (probably should) be asked to finance the construction and operation of stations in return for a share of the local area development benefits that the system generates. This is especially important because good urban access to stations (financed by local authorities) will be a critical determinant of intercity high-speed rail demand. An electric utility could be permitted to finance and construct the entire electrical power supply system in return for agreement on an electricity tariff that would guarantee an appropriate rate of return. Emergence of a federal grant program similar to the Interstate Highway program would surely shift the financing balance among the participants in the system, while lack of such a program combined with restricted State and/or local funds would mandate that the private sector take a large role in finance and management with a consequent impact on who pays for the system, who manages it, and who bears what risk. It might also be possible to implement the models sequentially as actual cost and demand experience is gained: for example, it would be possible to shift from gross cost to net cost franchising when actual demand history has been established.

The group is not in a position to say which of these options the Authority should pursue. The Authority's actual decision must be the result of a careful balance of finances, private and public costs and benefits, and risk sharing, among other factors. We understand from discussion with the Authority that adoption of the fully public model is unlikely. Other analyses have argued forcefully that a fully private model is also unlikely, because the balance of public and private benefits is not suited to purely private financing. What the group does strongly believe, though, is that progress on the HSR system is critically dependent on action by the Authority to identify the business model option it will pursue or, at least, to start the process of selecting the preferred approach. It will not be possible for the group to reach a judgment on the viability of any plan or request for use of bond funding without a much better understanding of the Authority's proposed business model.

Management of Risk and Uncertainty: Hope for the Best, Plan for the Worst

Both the LAO and the Auditor emphasize their belief that the Authority's discussion of risk and uncertainty is too brief and too vague. We agree.

Many critical aspects of the system remain undefined. For example, the alignment of the system between San Jose and San Francisco remains as a set of general alternatives, all of which have potentially significant opposition. In addition, any lack of cooperation by the Union Pacific Railroad to joint use of ROW might well impact on the cost and service quality of the system in a number of areas. The rolling stock has not been selected. Even where more specific decisions have been made, the design status of the system is at best at the 15-30 percent stage. Under these circumstances, estimates of the total cost of the system are highly uncertain and, if our experience is any guide, more likely to go up than down. Compounding the issue is the fact that, as discussed below, the demand estimates are considered by experts to be unreliable and subject to a wide range of uncertainty.

Developers of a project are by definition optimistic; implementers of a project, and especially those who pay for it, demand realism, even measured pessimism. This is especially true when many of the uncertainties and risks of the project are inter-related. For example, efficient project implementation demands a predictable schedule and reliable funding, neither of which is possible at this point in the project. Environmental litigation alone (already threatened in a number of areas) can delay the project significantly, exposing it to cost escalation and disruption for which the Authority will have to pay.

Risk management consists of assessing the expected cost and the variability in all the major cost and demand categories and identifying ways in which the cost and variability can be reduced. Both the estimated cost and the variability in the cost for each component of the project should be adjusted based on the stage of design, actual award prices and the stage of construction. Doing so will give the Authority and the public a much better sense of the reliability and variability of the engineer's estimates. At this stage of the project, use of traditional methods such as an arbitrary 20 percent or 30 percent contingency applied to the engineer's estimates affords no such confidence.

Risk analysis also should include detailed sensitivity evaluation to ask all the "what if" questions that will govern the confidence with which the State and potential private investors can make decisions and take risks. It is the basis for "hope for the best, plan for the worst" evaluation that all professional investors (public or private) pursue.

Risk transfer or allocation is a different issue. In principle, risks should be borne by the party best able to define the risk and manage the outcome. For example,

assembly and acceptance of the ROW is generally a public responsibility that no private investor would be able to accept. By comparison, risks associated with procurement and maintenance of a defined fleet of rolling stock are well within the ability of the private sector to carry, but the (demand) risk of defining the size of the fleet accurately may need to be shared between public and private sectors. All risks can be transferred, but putting the risk in the wrong place is unduly costly and often illusory. In connection with the business model discussion above, the Authority needs a detailed discussion of the risks of the project and who will bear them, including a justification of why the chosen risk allocation is the optimum and why the business model chosen is appropriate to the risk profile of the project.

The Financial Gap between Currently Available Resources and Total Project Cost

The LAO and Auditor's reports both note that there is a large gap between the resources that are currently and reliably available for the project and the total estimated cost of the project, even assuming that current cost estimates and schedules are correct. This raises the issue of how the Authority will respond if the necessary resources do not materialize as expected, either in amount or in time. How will the gap be closed, and what will the Authority do if the gap cannot be closed? This question assumes greatly added importance given the uncertainty and unreliability of federal funding along with the state's structural deficit, over-reliance on federal funding and budget unreliability, and in light of the public concern over excessive government spending.

We agree that filling the financial gap is a question for which a more explicit answer is needed. There are two dimensions in particular that need attention: the need to achieve operable segments with the money available, especially in the light of the timing requirements to qualify for the Federal American Recovery and Reinvestment Act (ARRA) money; and reassessment of the business model in the light of the actual and likely ability of the various parties to raise money.

The operable segment issue suggests that the Authority should concentrate its attention on those segments that will have at least some independent utility and for which the required environmental clearances can be completed in time to meet federal stipulations. The Authority did this in its original application to the Federal Railroad Administration (FRA) requesting that the San Francisco to San Jose and the Anaheim to Los Angeles segments be funded, along with a segment in the Central Valley for use in testing and proving the capabilities of track and rolling stock design.

Unfortunately, not even one of these parts can be finished with the money currently in hand, because the original federal award was only $2.25 billion[8] (as

[8] In fact, it is $400 million less because of the allocation of this amount to the Trans Bay Terminal in San Francisco.

opposed to the $4.7 billion assumed in the 2009 Business Plan) and because the bonding requirement of an equal match with other funding would limit bond funding to the same amount. Moreover, the Bay Area segment is under challenge for environmental reasons and the Los Angeles to Anaheim segment is being challenged on both cost and environmental grounds. There is also continuing controversy over the choice between the Altamont Pass route and the Pacheco Pass route.

We understand that the FRA has recently awarded an additional $731 million to the Authority in the latest round of ARRA decisions. We also understand that the FRA has required the Authority to concentrate all funding on only one segment, thus posing a dilemma. If funding is concentrated on one of the Central Valley segments, the Authority might be able to demonstrate high-speed trains in California, but, if the overall project is not fully completed, a single segment in the Central Valley will have limited utility and questionable financial or economic viability. If the Authority focuses the money on either the San Francisco/San Jose or Anaheim/Los Angeles segments, the result would have considerable independent utility, but would not demonstrate high speed operation and, in the case of San Francisco/San Jose would not actually constitute "intercity" service as defined by the FRA. We understand from public statements that the Authority has concurred with FRA and intends to concentrate federal funding in the Central Valley, though the specific segment(s) to be completed remain under consideration. If this is the Authority's decision, we then urge the Authority to review and recast its Business Plan to reflect the impact on schedules and operations of adopting this sequence of implementation. We also urge the Authority to develop a plan for the phased implementation of the entire San Francisco to Anaheim route consistent with the description of the project contained in Proposition 1A.

The business model issue is also relevant here because the contribution of each of the parties will depend on availability of funding as well as an evaluation of benefits and costs. If public money is too limited to permit a desired business model to work, then a different business model will be needed that gets more funding from, but shifts more authority and responsibility to, the private sector and/or to local authorities.

As discussed above, there are models, such as net cost franchising/concessioning or even heavily private models, which could in theory encourage the private sector to generate a lot more funding than currently contemplated to fill the gap. This would, however, call for a significant change in the currently planned role of the Authority from one that designs and contracts for construction and supervises operations to one that issues general requirements for the system and then awards a concession to the best private bidder, and it would have to be based on an investment grade financial plan that included an adequate rate of return for the private partners. Again, this highlights the critical importance of the development of a business model for the project that is

consistent with the roles, responsibilities and actual financial resources and expectations of all of the potential participants.

The lack of a clear financial plan is a critical concern. The group fully realizes that developing a credible financial plan is difficult depending, as it does, on a large number of decisions not yet made and on factors far beyond the control of the Authority. For example, in a deteriorating budget climate in which even large and highly beneficial projects such as the new rail tunnel from New Jersey to New York City are abruptly canceled because of a shortage of state funds to cover a potential overrun, and in which the likelihood of new large Federal funding programs appears small, there is an air of unreality about a plan that includes $17 to $19 billion in "free" Federal funding from programs that do not yet exist. The same can be said of the expectation for large local or State funding for stations and area development when local governments are highly stressed and when the finances of the State are sufficiently weak that a sale of $9 billion in State General Obligation bonds might only be possible (if at all) at unusually high interest rates.

For these reasons, the project, as of now, has only limited credibility with private investors. The demonstration of firm Public Sector financial commitments will be an absolute necessity, prior to approaching sources of private capital. In our discussion with Roelof van Ark, it is clear that the Authority recognizes the "chicken and egg" nature of the conundrum: the Authority cannot get private investment without a solid prospect that the project will be completed and it cannot complete the project without private investment that would make the project successful.

Demand Modeling and Estimating

Both the LAO and the State Auditor point to the importance of having the best possible demand estimates. We agree that improvements should be sought both in the models themselves and in the transparency of the results.

The California Senate Transportation and Housing Committee commissioned a study by the Institute for Transportation Studies at UC Berkeley. The study[9], which was issued on June 30, 2010, concluded that there are "significant problems that render the key demand forecasting models unreliable for policy analysis." (pg 2) The study further concluded that "...the combination of problems in the development phase and subsequent changes made to model parameters in the validation phases implies that the forecasts of high speed rail demand – and hence of the profitability of the proposed high speed rail system – have very large error bounds. These bounds, which were not quantified by CS [Cambridge Systematics], may be large enough to include the possibility that

[9] Brownstone, David, Mark Hansen and Samer Madanat, "Review of 'Bay Area/California High-Speed Rail Ridership and Revenue Forecasting Study,'" Institute for Transportation Studies, University of California, June 30, 2010.

California HSR may achieve healthy profits and the possibility that it may incur significant revenue shortfalls. We believe that further work to both assess and reduce these bounds should be a high priority." (pg 3)

The Authority must have demand and revenue forecasts that are reliable for policy and financial analysis; without them there is little basis for proceeding. We recommend that the Authority work with UC Berkeley and Cambridge Systematics on an expedited basis to complete the analysis of the issues in the demand modeling, especially biases in model coefficients and the reliability of the estimates, in order to develop estimates that are generally agreed to be the best that can be obtained. This does not mean that completely reliable estimates will ever be possible; instead it requires that the estimates should be improved as much as possible, and the likely range of error should be clearly defined and stated.

It is also important to assess what the risk of a poor demand estimate is and who should carry it. At one level, if the demand estimates are grossly optimistic (not an unknown result) then there could be an actual demand level below which the system should not have been built at all. There could be a somewhat higher demand level at which the operating costs can just be covered so there would be no "subsidy," though a public contribution to capital might be needed. There could be a higher demand level at which the sum of the public and private benefits clearly exceed public and private costs, justifying building the system with an appropriate balance of public and private contribution. Finally, there might be a very high demand level at which the system is financially profitable and no significant public contribution is needed. The current demand estimates are not capable of defining these levels or of assessing the likelihood that any might be met.

If the system is built, however, a very large part of the investment cost in infrastructure is essentially independent of demand. A high-speed rail system has certain minimum standards of curvature and gradient, which essentially fixes the cost of acquiring the ROW once the basic alignment has been set. The system will have to be double-tracked at a minimum, and will require electrification, though some aspects of the electrification might depend on operating volume. Stations will be needed, though station size might be adjusted somewhat. The Bay Area and Los Angeles to Anaheim segments may offer some savings of common operation of multiple services, but most of the system must be dedicated for high-speed rail use only.[10]

This means that if the basic system were built with public money, then the remaining demand risk would relate primarily to the size of the rolling stock fleet

[10] The legislative trip time requirement applies to Los Angeles to San Francisco, which means that high-speed priorities must prevail over local train priorities in the San Francisco to San Jose segment. By contrast, since Los Angeles to Anaheim is not covered by the trip time requirement, there is more flexibility to develop a joint operating approach considering costs and local preferences.

and the cost of operating the system at the actual demand level given the fares charged. It is quite possible that a private operator, making its own demand estimates, would be willing to take this level of risk, especially if any payments made for the use of infrastructure were completely variable with actual as opposed to projected use.

Under this assumption, the current demand estimating needs only to carry a desired level of confidence that the system will have enough demand to justify construction, where the justification can be based on expected net revenues along with public net benefits. This would effectively leave all capital cost risk with the Authority. Subsequent, private demand estimates would determine operating patterns, tariffs and fleet size, leaving this part of demand risk in the hands of the operator. Access payments by the operator to the Authority for the use of the infrastructure could pay back some, or all, of the public investment, depending on actual demand levels and the Authority's financial objectives. As stated before, it will depend on the business model chosen.

Need for a Revenue or Demand Guarantee.

Both the LOA and the State Auditor challenged the possibility raised by the Authority that some of the initial demand risk will need to be shifted from the operator to the Authority by having the Authority guarantee a stated level of revenue or demand below which a payment would be triggered. Such a payment could be considered to be an "operating subsidy" that is prohibited under the terms of AB 3034.

We believe that this question is primarily relevant within the type of business model adopted. For example, if the Authority offered a long-term net-cost concession in which the concessionaire has to design, build, finance and operate the entire system along with acquiring rolling stock, it is highly likely that a significant part of the demand risk would have to be assumed by the Authority through some kind of revenue guarantee unless, of course, the demand estimates are agreed to be so high that the profitability of the system is beyond doubt (as of now, they are not that high). On the other hand, if the entire system were designed and built by the Authority with no charge for use by the operator, and if the rolling stock were bought by the Authority and leased for a nominal fee to the operator, with the operator's revenues covering only operation and maintenance costs, the need for an added demand guarantee is probably minimal and the issue of a "subsidy" would not arise. The actual outcome can only be assessed through improved demand forecasting, including sensitivity analysis.

In fact, obtaining an agreed definition of the term "operating subsidy" has become critical. A recent report (Enthoven, Alain C., William R. Grindley and William H. Warren, "The Financial Risks of California's Proposed High-Speed Rail Project," Community Coalition on High Speed Rail, October 2010, see www.cc-hsr.org)

argued that all interest payments on State bonds should be considered as a part of operating costs, whereas the Authority has based its Business Plan on excluding State bond interest (and most other recovery of capital costs) from funds to be repaid by the Authority. We encourage the Authority to seek clarification from the Legislature on the definition of what costs and revenues should be included within the term "operating subsidy." This will significantly affect the legal viability of the project and the choice of business model.

The "Financial Risks" study also highlights the confusion between **financial** analysis, which is the basis for private sector involvement, and **economic** analysis, which is the basis for public involvement. The study makes a series of critical comments on the 2009 Business Plan and deserves careful attention and response from the Authority, as we share many of the same concerns. At the same time, the study is limited to financial analysis, while ignoring all of the reasons – consumer surplus, reduction of congestion on rural and urban highways, airports and airways, reduction of pollution and carbon emissions, and reduction of accident costs, among others – that would be included in an economic analysis to evaluate public involvement in the project. The treatment of public benefits was much more detailed in the 2008 Business Plan than in the 2009 Business Plan. The 2008 and 2009 Business Plans appeared to show that public benefits might be a significant multiple of purely financial benefits (revenue minus operating and private financial costs). Given the importance of the issue in the overall evaluation of the project, and the close interrelation of public benefits with demand forecasts, we strongly encourage the Authority to include a thorough and updated treatment of public benefits and costs in the 2010 Business Plan and to link these results with the definition of "operating subsidy."

ROW and Alignment Availability

One of the most important remaining physical and investment cost uncertainties in the project is the availability and cost of the ROW. This is partly because of the extreme opposition that the building of urban railroad segments always engenders (aggravated by the need of high-speed trains for an unusually straight and flat alignment), partly because of concerns previously expressed by the Union Pacific Railroad, , partly because of the continuing controversy of the Pacheco versus Altamont routes, and partly because of the uncertainty in the type of service to be provided between Anaheim and Los Angeles. The importance of these questions has thus far been minimized by the retention of alternatives, either for routes, or by use of tunnels or raised tracks.

Project budgets cannot be improved and schedules cannot be established until the alignment and the service plans are finished. More important, any future changes as a result of compromise or litigation can have a disproportionate impact on schedule and costs, because a high-speed railway is a system of inter-related elements in which one change can have impacts on many other system components.

It will be critical that the Authority move as quickly as possible to finalize the alignment. In addition, given the uncertainty of the resolution of litigation over the alignment, which might cause alignment re-routings or use of more than expected tunneling, the Authority should acknowledge the risks and develop an explicit approach to managing and minimizing them.

Technical, Safety and Seismic Issues

There has been limited information from the Authority regarding such issues as the type of track to be used. For example, what proportion of the project will be at-grade, in tunnel and/or elevated? These decisions will have significant cost implications. For example, analysis of the cost of the high speed rail project in China revealed that the cost of elevated track was approximately double the cost for at-grade track and the cost of tunnels was double the cost of an elevated configuration. Any decisions made by the Authority in this area will have significant financial implications for the project. The same can be said of train speeds and seismic-related issues. Specifically, train speeds in China, due to safety reasons, mandated that the track be grade- separated, either in tunnel or elevated. Also, given the seismic issues in California, larger foundations will be needed, resulting in higher system costs, perhaps by as much as 60 percent. The Authority needs to make a clear decision on these issues.

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Letter: Richard Cline, Mayor of the City of Menlo Park to California Governor Elect Jerry Brown – Draft – Resetting the Planning Process for the High Speed Rail Project on the San Francisco Peninsula, January 31, 2011

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CITY OF MENLO PARK

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January 31, 2011

Honorable Governor Jerry Brown
c/o State Capitol, Suite 1173
Sacramento, CA 95814

Subject: Resetting the Planning Process for the High Speed Rail Project on the San Francisco Peninsula

Dear Governor Brown:

Our City is committed to working collaboratively to build better transportation solutions on the San Francisco Peninsula. We understand the desirability of the cities on the Peninsula to reach general agreement on a transportation vision that will guide the Peninsula into the future. By working together, we will have greater influence on how to plan a high speed rail system that is compatible with Peninsula communities.

Now that the initial high speed rail funding has been designated for the Central Valley, we have time to re-assess high speed rail infrastructure needs on the Peninsula.

Our City respectfully makes the following requests:

1) **Complete an Independent Ridership Study**

Deficiencies with the ridership study completed by the High Speed Rail Authority have been well documented. The report issued November 18, 2010 by Will Kempton, Chairman of the California High-Speed Rail Peer Review Group, stated: **"The issues identified by the Institute for Transportation Studies at the University of California at Berkeley, the Legislative Analyst's Office and the State Auditor's office have raised sufficient concerns with the demand model so as to call into question the project's fundamental basis for going forward. The group recommends that the Authority work with UC Berkeley, the Legislative Analyst's Office and the State Auditor to complete an analysis of any issues regarding the demand models so that a mutually agreed estimate can be reached along with ranges of uncertainty."**

Ridership is the foundation for rail infrastructure planning which drives key decisions and system costs. For example, the current assumption that four sets of tracks are needed on the Peninsula is predicated on ridership data. Could two or three sets of tracks meet high speed rail needs while reducing costs and environmental impacts? This question should be examined within the context of reliable ridership projections. Unfortunately, the planning, engineering, and environmental studies that are currently in progress for the San Francisco to San Jose segment continue to be based on the faulty ridership study conclusions.

Menlo Park fully supports the recommendations of the Peer Review Group. However, there is no evidence to date that the High Speed Rail Authority intends to follow their recommendations to update the ridership demand model. Leadership at your level is needed to make this happen.

2) Independently Review Project Costs and Require an Updated Business Plan

We realize that tackling California's fiscal crisis is a top priority of your administration. Evaluating the high speed rail program must be an essential part of this given the size of the project and financial risks to the State.

We appreciate the candid analysis of Mr. Kempton and the Peer Review Group. Their reports states, **"The lack of a financial plan is a critical concern."** It goes on to state, **"In a deteriorating budget climate in which even large and highly beneficial projects are abruptly cancelled because of shortage of funds, and in which the likelihood of new large federal funding programs appears small, there is an air of unreality about a plan that includes $17 to $19 billion in "free" federal funding from programs that do not exist."**

The State is currently poised to spend billions to match Federal grants in order to proceed with the first high speed rail segment in the Central Valley. If the current vision of a statewide system proves to be unobtainable, this money will have been wasted. More reliable financial information is needed now.

As you and the State Legislature work to establish spending priorities, a fresh look at the High Speed Rail Project is urgently needed. It has the potential to reduce costs, build local support, and restore credibility to the decision making process. Please work with us to accomplish these worthy objectives.

Sincerely,

Richard Cline
Mayor, City of Menlo Park

Cc: Members of the Menlo Park City Council
Anna Eshoo, Member of Congress
Joe Simitian, State Senator
Richard Gordon, State Assembly

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Eshoo/Simitian/Gordon's statement of "High Speed Rail Done Right", April 18, 2011

Eshoo, Simitian, and Gordon Joint Statement on High Speed Rail

PRINT

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Since the passage of Proposition 1A in 2008, each of us has expressed our support for "high-speed rail done right," by which we mean a genuinely statewide system that makes prudent use of limited public funds and which is responsive to legitimate concerns about the impact of high-speed rail on our cities, towns, neighborhoods and homes.

To date, however, the California High Speed Rail Authority has failed to develop and describe such a system for the Peninsula and South Bay. For that reason, we have taken it upon ourselves today to set forth some basic parameters for what "high-speed rail done right" looks like in our region.

We start with the premise that for the Authority to succeed in its statewide mission it must be sensitive and responsive to local concerns about local impacts. Moreover, it is undeniable that funding will be severely limited at both the state and national levels for the foreseeable future.

Much of the projected cost for the San Jose to San Francisco leg of the project is driven by the fact that the Authority has, to date, proposed what is essentially a second rail system for the Peninsula and South Bay, unnecessarily duplicating existing usable infrastructure. Even if such a duplicative system could be constructed without adverse impact along the Caltrain corridor, and we do not believe it can, the cost of such duplication simply cannot be justified.

If we can barely find the funds to do high speed rail right, we most certainly cannot find the funds to do high speed rail wrong.

Accordingly, we call upon the High-Speed Rail Authority and our local Caltrain Joint Powers Board to develop plans for ***a blended system that integrates high-speed rail with a 21st Century Caltrain.***

To that end:

- We explicitly reject the notion of high-speed rail running from San Jose to San Francisco on an elevated structure or "viaduct"; and we call on the High-Speed Rail Authority to eliminate further consideration of an aerial option;

- We fully expect that high-speed rail running from San Jose to San Francisco can and should remain within the existing Caltrain right of way; and,

- Third and finally, consistent with a project of this more limited scope, the Authority should abandon its preparation of an EIR (Environmental Impact Report) for a phased project of larger dimensions over a 25 year timeframe. Continuing to plan for a project of this scope in the face of limited funding and growing community resistance is a fool's errand; and is particularly ill-advised when predicated on ridership projections that are less than credible.

Within the existing right-of-way, at or below grade, a single blended system could allow high-speed rail arriving in San Jose to continue north in a seamless fashion as part of a 21st Century Caltrain (using some combination of electrification, positive train control, new rolling stock and/or other appropriate upgrades) while maintaining the currently projected speeds and travel time for high-speed rail.

The net result of such a system would be a substantially upgraded commuter service for Peninsula and South Bay residents capable of accommodating high-speed rail from San Jose to San Francisco.

All of this is possible, but only if the High-Speed Rail Authority takes this opportunity to rethink its direction.

Over the course of the past 18 months the Authority has come under considerable criticism from the California Legislative Analyst's Office, the Bureau of State Audits, the California Office of the Inspector General, the Authority's

own Peer Review Group and the Institute of Transportation Studies at the University of California at Berkeley. The Authority would do well to take these critiques to heart, and to make them the basis for a renewed and improved effort.

Frankly, a great many of our constituents are convinced that the High-Speed Rail Authority has already wandered so far afield that it is too late for a successful course correction. We hope the Authority can prove otherwise.

An essential first step is a rethinking of the Authority's plans for the Peninsula and South Bay. A commitment to a project which eschews an aerial viaduct, stays within the existing right-of-way, sets aside any notion of a phased project expansion at a later date, and incorporates the necessary upgrades for Caltrain - which would produce a truly blended system along the Caltrain corridor - is the essential next step.

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Legislative Analyst Office Report –High Speed Rail is at a Critical Juncture dated May 10, 2011

LAO

High-Speed Rail Is at a Critical Juncture

MAC TAYLOR • LEGISLATIVE ANALYST • MAY 10, 2011

EXECUTIVE SUMMARY

California's proposed high-speed rail project would link the state's major population centers, including Sacramento, the San Francisco Bay Area, the Central Valley, Los Angeles, the Inland Empire, Orange County, and San Diego. The most recent cost estimate for completion of the first phase of the project is roughly $43 billion. In November 2008, voters approved Proposition 1A, which allows the state to sell $9 billion in general obligation bonds to partially fund the development and construction of the high-speed rail system. In addition, the state has received roughly $3 billion from the federal government for its construction. The California High-Speed Rail Authority (HSRA) recently approved plans to begin construction in fall 2012 on a portion of the system costing roughly $5.5 billion through the Central Valley that spans from north of Fresno to north of Bakersfield. The Legislature will likely be asked to appropriate much of the funding for this initial segment in 2012-13.

A Number of Problems Threaten Successful Development of High-Speed Rail. In this report, we describe a number of problems that pose threats to the high-speed rail project's successful development as envisioned by Proposition 1A. For example, the availability of the additional funding assumed in a 2009 business plan as necessary to complete the project is highly uncertain and federal deadlines and conditions attached to the funding already provided to the state would limit the state's options for the successful development of the system. In addition, the existing governance structure for the project is inadequate for the imminent development and construction stages and the Legislature lacks the good information it needs to make critical multi-billion dollar decisions about the project that it will soon face.

Legislative Actions Could Improve Likelihood of Project's Success. The Legislature faces some challenging choices about whether to continue with a project that, despite the problems outlined above, could have some reductions in other spending for transportation improvements as well as air quality and other environmental benefits. If the Legislature chooses to go forward with the high-speed rail project, we have concluded that two key steps could be taken now to improve the likelihood of its successful development. First, the Legislature needs more time and greater flexibility to make critical decisions relating to the project. This would require modifications to the federal restrictions that have been imposed on the project regarding the timing of the expenditure of these federal funds, as well as to a federal administrative decision to require that they all be spent building an initial section of the rail line in the Central Valley. Second, significant improvements are needed in the way both day-to-day and longer-term strategic decisions are made. We have concluded that the current governance structure for the project is no longer appropriate and is too weak to ensure that this mega-project is coordinated and managed effectively.

LAO Recommendations. We recommend that the Legislature take the following actions to increase the likelihood that the high-speed rail project will be developed successfully:

- ***Fund Only Needed Administrative Tasks for Now.*** We recommend that the Legislature reject the administration's 2011-12 budget request for $185 million in funding for consultants to perform project management, public outreach, and other work to develop the project, and only appropriate at this time the $7 million in funding requested for state administration of the project by HSRA.

- ***Seek Flexibility on Use of Federal Funds.*** We propose that the Legislature direct HSRA to renegotiate the terms of the federal funding awarded to the state by the Federal Rail Administration (FRA). We believe the state must obtain relief from the current federal restrictions on the project if it is to be developed successfully, and therefore that the Legislature should proceed with the project only if this flexibility is obtained from the federal government.

- ***Reconsider Where Construction of the Line Should Start.*** If the federal flexibility proposed above is obtained, we recommend that the Legislature further direct HSRA to reevaluate which segment or segments should be constructed first based on criteria determined by the Legislature, such as potential statewide benefits from building a particular segment and whether a selected segment could generate the ridership and revenues to be financially viable on its own. The HSRA would be authorized to subsequently seek a budget augmentation to fund the development of whatever segment the Legislature approves based upon these new criteria.

- ***Improve the Way Project Decisions Are Made.*** We recommend that the Legislature pass legislation this session that shifts the responsibility for the day-to-day and strategic development of the project from HSRA to the California Department of Transportation (Caltrans). A new and separate division of Caltrans dedicated to the high-speed rail project would be better positioned, if equipped with the appropriate project delivery tools, to manage the development of the system in this phase. In addition, we recommend that the Legislature remove decision-making authority over the high-speed rail project from the HSRA board to ensure that the state's overall interests, including state fiscal concerns, are fully taken into account as the project is developed.

BACKGROUND

The HSRA is responsible for planning and constructing an intercity high-speed train that is fully integrated with the state's existing mass transportation network. The train system would link the state's major population centers, including Sacramento, the San Francisco Bay Area, the Central Valley, Los Angeles, the Inland Empire, Orange County, and San Diego (as shown in Figure 1). The California High-Speed Rail Act of 1996 (Chapter 796, Statutes of 1996 [SB 1420, Kopp]) established HSRA as an independent authority consisting of a nine-member board appointed by the Legislature and Governor. In addition, the HSRA has an executive director, appointed by the board, and a staff of less than 20. Most work is carried out by consultants under contracts with HSRA.

In November 2008, voters approved Proposition 1A, which allows the state to sell $9 billion in general obligation bonds to partially fund the development and construction of the high-speed rail system. In addition, the state has received roughly $3 billion from the federal government for the cost of construction. The remaining funding for the system's construction and operation is anticipated to come from the federal and local governments, as well as the private sector. The HSRA's most recent cost estimate for completion of the first phase of the project as defined by Proposition 1A, from San Francisco to Los Angeles and Anaheim via the Central Valley, is roughly $43 billion. The HSRA recently approved plans to begin construction in fall 2012 on a portion of the system through the Central Valley that spans from north of Fresno to north of Bakersfield. It is estimated this portion will cost roughly $5.5 billion. The Governor's January budget plan proposes to allocate $192 million for HSRA activities for 2011-12.

Figure 1

High-Speed Rail Segments by Phase

A NUMBER OF PROBLEMS THREATEN SUCCESSFUL DEVELOPMENT OF HIGH-SPEED RAIL

California's high-speed rail project is quickly picking up pace, with plans to spend billions of dollars in the next few years. A number of serious problems, however, threaten the successful development of the high-speed rail project. They include:

- The availability of the funding necessary for the new system is highly uncertain.
- Federal project requirements limit the state's options for development of the system.
- The HSRA's structure and staffing levels are inadequate for its changing role.
- The Legislature lacks good information for decision making.

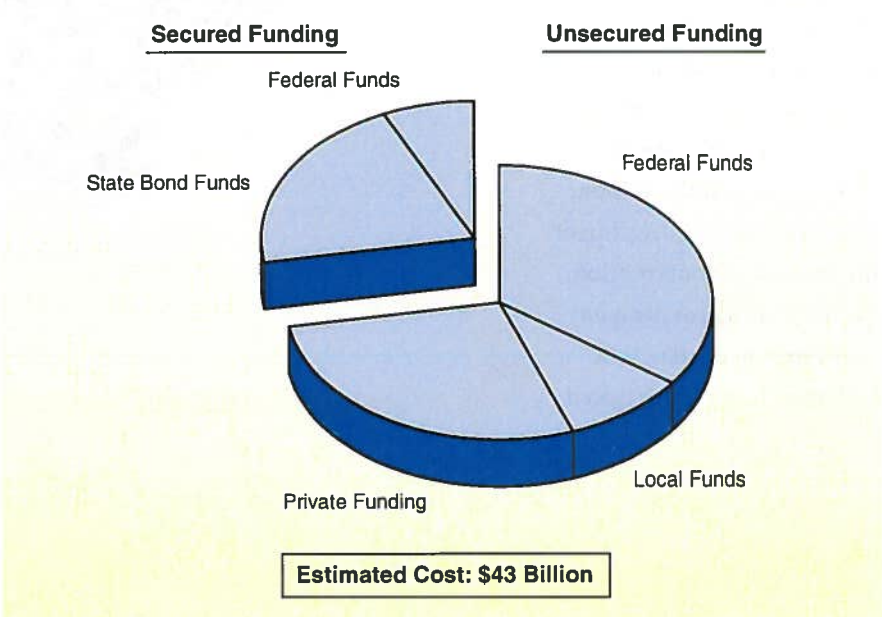
Availability of the Funding Necessary for New System Highly Uncertain

The *2009-10 Budget Act* required HSRA to submit to the Legislature a revised business plan by December 15, 2009, as well as a review of this plan by our office. Figure 2 shows the project's anticipated funding sources as described in the business plan, as well as what portion of this funding has been secured as of April 2011. In our review of the business plan in early 2010 we concluded that its funding assumptions are optimistic and that it is unclear how the state will be able to secure the necessary funding to complete the project. Specifically, we found that the business plan includes unrealistic assumptions about the receipt of federal funds to build the project, no discussion of the challenges of additional General Fund debt-service costs, as well as a lack of identified sources for the other funding assumed in the business plan to complete a high-speed rail system. In addition, the plan indicated the potential need for a state operating subsidy, which would be contrary to explicit provisions in Proposition 1A. We discuss these potential problems in more detail below.

Federal Funding Assumptions Appear Unrealistic. The HSRA's latest business plan assumes the state will receive $17 billion to

Figure 2

Proposed High-Speed Rail Funding for Development and Construction



$19 billion from the federal government for construction of the high-speed rail system. To date, HSRA has secured roughly $3.6 billion in federal funding for development of the project. Of that, roughly $3 billion is dedicated to the construction of the system; $400 million was given to the developers of the San Francisco Transbay Transit Center, one of the planned high-speed rail stations; and nearly $200 million will be used by HSRA for project-wide preliminary engineering and environmental clearance work. The HSRA indicates that without additional significant federal support beyond that provided to date, the project cannot be completed. Given the federal government's current financial situation and the current focus in Washington on reducing federal spending, it is uncertain if any further funding for the high-speed rail program will become available. In contrast to the interstate highway system, which was constructed with the dedication of funding from the federal excise tax on gasoline, federal funding for high-speed rail is not supported by a dedicated revenue stream and therefore must compete with other annual federal funding priorities.

State Would Incur Major Additional Debt Service Costs. The 2009 business plan assumes that $9 billion in state funding for the project will come from the sale of general obligation bonds approved by voters in Proposition 1A. The debt service payments on general obligation bonds are typically paid for from the state's General Fund. We estimate that, should the state sell all of the $9 billion in voter-approved high-speed rail bonds, the state's total principal and interest costs for repaying the debt would be $18 billion to $20 billion. This would require annual debt service payments of roughly $1 billion for the next two decades. Due to the dire condition of the state's General Fund, adding such costs for debt service in the near future means that the Legislature would have to consider reducing costs for other state programs or increasing revenues to offset these costs.

Basis for Assuming Other Funding Contributions Is Unclear. The 2009 business plan assumes that $14 billion to $17 billion of the project's construction costs would be paid with funds from local agencies and private partners. The bulk of this funding is expected to come from the private sector when the state enters into some form of public-private partnership (PPP), or contractual agreement with private partners to complete and operate the high-speed rail system. The amount of funding available from these sources will be highly dependent on the business model chosen for the system. For example, if HSRA ultimately decides to share the tracks built for the new train system with commuter rail operators in certain metropolitan areas, those local agencies might have an incentive to contribute local revenues to the construction of the project because the improvements would ultimately benefit the operations of local systems. This would not be the case, however, if the business model chosen by HSRA did not share the tracks and instead maintained the rail line purely dedicated to its own trains. The HSRA could choose not to share tracks for a variety of reasons, such as safety concerns or a determination that it needed all the rail capacity for its own service. The current HSRA business plan does not provide any details about the business model and how, as it now assumes, it will attract substantial funding from local agencies and private partners to build the system.

Potential Need for Operating Subsidies Could Lead to General Fund Cost Pressures. The HSRA's business plan indicates that the initial costs of operating a high-speed rail system may exceed $1 billion per year. However, Proposition 1A requires HSRA to submit a funding plan which certifies that, once complete, the planned high-speed rail passenger service will not require a local, state, or federal operating subsidy. This certification

must occur prior to requesting any appropriation of the $9 billion in state bond funds for capital costs. Notwithstanding the provisions of Proposition 1A, the state could discover during development or after construction has been completed that the system needs such a subsidy in order to operate. If the train does not attract the number of riders projected, for example, operating revenues would likely be less than expected. The train line would then need funding from some other source to operate. Absent the identification of another source of operating funds for the train system, this situation could place an additional financial pressure on the state's General Fund.

Federal Project Requirements Limit State's Options

As noted earlier, the state so far has received a commitment of $3.6 billion of federal funds for the development of the state's high-speed rail system. The FRA, which is responsible for administration of federal railroad assistance and rail safety programs, has attached specific requirements to the roughly $3 billion portion of that funding which was designated specifically for construction of the high-speed rail line. Below, we discuss some of the challenges for the project created by these federal restrictions.

Federal Funds Deadlines and Requirements Led to Risky Decisions. A large portion of the federal funding dedicated so far to California's high-speed rail project came with strict deadlines that may be difficult for the state to meet. Moreover, federal authorities are also requiring that nearly all of these funds be spent building an initial section of the train line in the Central Valley that, by itself, would have insufficient ridership and revenues to stand on its own.

About $2.3 billion of the $3 billion in federal funds awarded to the state for construction of the rail system come from the 2009 federal economic stimulus legislation, titled the American Recovery and Reinvestment Act (ARRA). The FRA initially required that the state obtain environmental clearance of the segment of the project financed with ARRA funds by September 2011. (In this report we use the terms segment, corridor, and route interchangeably without regard to potential technical distinctions in state law.) In addition, the FRA required that the ARRA funds be expended by 2017 and indicated that the state must forfeit any ARRA funds that are unspent by that time. (The remaining $715 million of federal funding awarded to California for high-speed rail purposes is not subject to the same deadlines as the ARRA funds.)

In November 2010, the FRA announced that it will require all federal funds for construction awarded to the state as of that time be spent on a segment of the rail line planned for the state's Central Valley. According to FRA, this decision was driven by the deadlines discussed above. Specifically, FRA concluded that the segments most likely able to meet the 2017 deadline for expenditure of ARRA monies were in the Central Valley in part because, at the time, there was little public opposition to this portion of the project which potentially could slow the project down.

Largely as a result of these federal deadlines and requirements, HSRA decided in December 2010 to begin the construction of the statewide system within the Central Valley. This decision by HSRA, however, represents a big gamble that additional monies will eventually become available from the federal government or other sources to connect the Central Valley line to other major urban areas of California. The authority acknowledges that operation of the Central Valley segment by itself is infeasible because the potential ridership of a high-speed rail line within that segment alone would be insufficient to operate the system without a substantial subsidy.

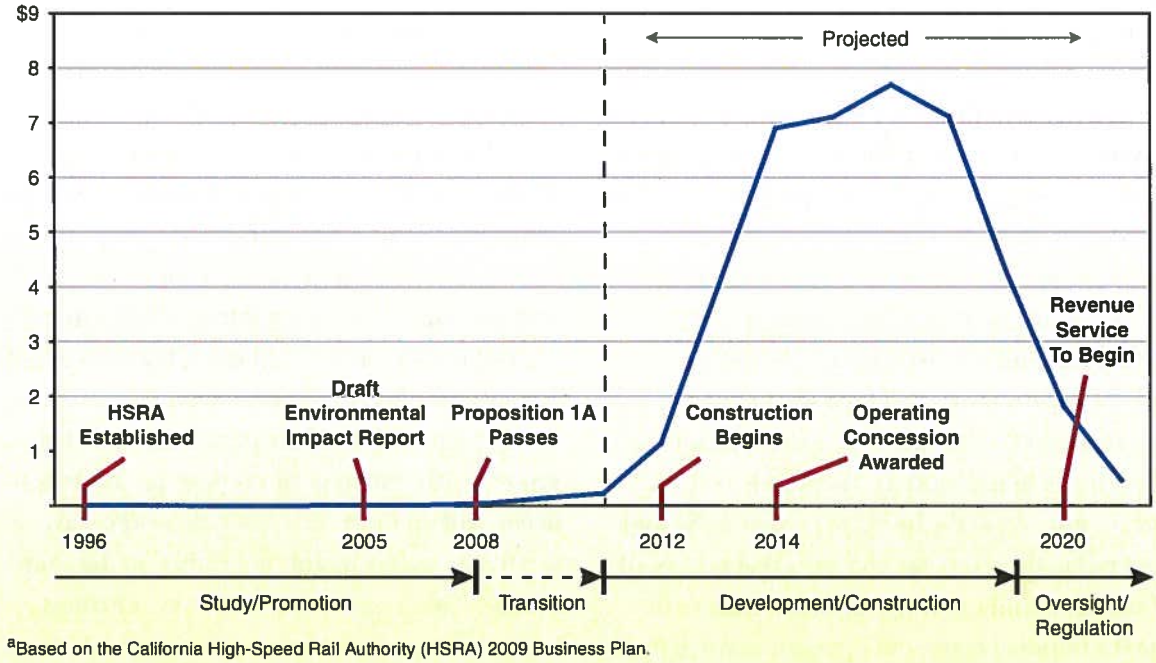
It now appears, however, that this risky decision by HSRA was based on faulty assumptions. After HSRA approved the Central Valley section, the FRA dropped the September 2011 deadline for environmental clearance work. Moreover, the assumption that construction of the Central Valley segment could move quickly because of a lack of public opposition has already proved to be unfounded. Significant local opposition has arisen, relating largely to concerns over how the alignment of the tracks could affect agricultural operations, which has cast into doubt whether the 2017 deadline for expending all the ARRA funds can be met.

HSRA Structure and Staffing Levels Inadequate for Its Changing Role

The HSRA was initially created in 1996 to direct the development and implementation of a California high-speed rail line that is fully integrated with the state's existing intercity rail and bus network. As described earlier, HSRA consists of a nine-member board (five members appointed by the Governor, two appointed by the Senate Rules Committee, and two by the Speaker of the Assembly), an executive director appointed by the board, and staff to support the project. Voter approval of Proposition 1A in 2008 shifted its role from development of the system to one of overseeing the construction of what experts often refer to as a "mega-project." The HSRA is now responsible for delivering one of the country's largest transportation infrastructure projects. The timeline in Figure 3 shows how HSRA's role and annual funding levels have changed since 1996 and are proposed to significantly change in the future. As the figure indicates, annual funding levels for the project have been relatively low compared to the large increases in expenditures anticipated in the near future when the project begins construction.

Figure 3

Proposed Timeline and Cost of High-Speed Rail Implementation



[a]Based on the California High-Speed Rail Authority (HSRA) 2009 Business Plan.

However, our analysis indicates that HSRA's operational structure and staffing practices have not kept pace with the project's changing demands. Below, we describe how these problems could hinder the effective management and oversight of the high-speed rail project.

Structure of HSRA Board Is Problematic. To date, the Legislature's major role in the development of the high-speed rail project is the appropriation of funding each year. State law otherwise grants the HSRA board considerable authority over the project, including the award of multi-billion dollar contracts and concessions as well as the choice (within voter-approved parameters) as to when and where the train will be constructed and eventually operated.

The considerable autonomy granted to the HSRA board under current state law, however, does not ensure that the board keeps the overall best interests of the state in mind as it makes critical decisions about the project. Upon their appointment to the panel, board members receive four-year terms and are not subject to direction by the executive branch. Nor are gubernatorial appointees to the board subject to a legislative confirmation process. This relative lack of accountability to either the executive or legislative branches creates a risk that the board will pursue its primary mission—construction of the statewide high-speed rail system—without sufficient regard to other state considerations, such as state fiscal concerns.

Arguably, some board decisions, such as its selection of the Central Valley segment as the starting place for construction of the system, have already demonstrated such weaknesses in the structure of the board. While that decision at the urging of federal authorities did advance the primary mission of the board to complete the high-speed rail project, it raises concerns that the board did not sufficiently consider the fiscal risks to the state if additional monies to complete construction of the line into a more urban area do not materialize. Moreover, HSRA pledged at the time to provide a dollar-for-dollar match of ARRA funds even though no match was required, committing more state bond dollars and debt-service payments than necessary to secure the federal funding.

Another concern is that, under the current statute that created HSRA, appointees to the board are not required to have the specific expertise that would be helpful in the management of a construction project of this magnitude, such as a background in engineering or construction management, infrastructure finance, or rail system management.

Heavy Reliance on Consultants May Increase Risks to State. Before the passage of Proposition 1A, the HSRA maintained a staff of roughly seven positions and conducted oversight of a relatively small number of consultants developing the general approach for building the high-speed rail system. After the voters approved the bond funding for the project, the number of consultants working on its implementation increased significantly. At the time we prepared this analysis, the HSRA operated with a staff of approximately 19 filled positions and a team of consultants that is the equivalent of 604 positions. While HSRA is authorized to have a staff of 40, vacancies have persisted largely because of hiring freezes imposed in recent years in response to the state's severe fiscal difficulties. If all of the authorized state positions were filled, the ratio of state employees to consultants would be 1 to 15. As things stand, with only 19 state workers actually in place, the ratio is 1 state employee for every 33 consultants.

Representatives of the HSRA contend that successful oversight of this type of project is not dependent on the number of state workers available to oversee its consultants but rather on the ability of staff to manage certain necessary functions, such as contract management and oversight,

financial and operational plan development, and risk management. According to HSRA staff, similar mega-projects worldwide have succeeded with between 60 and 80 staff fulfilling these critical functions. Recent state reviews, however, challenge the authority's contentions. For instance, in 2010, the State Auditor found that although HSRA generally followed state requirements for awarding contracts, its processes for monitoring the performance and accountability of its contractors are inadequate. In addition, the auditor found that HSRA paid at least $6.9 million in invoices from its consultants without verifying that the work reflected on the invoices was actually performed. A review by the state Office of the Inspector General included similar findings and raised additional concerns about HSRA's ability to oversee the consultants on the project. Based on these findings, it is questionable whether the current number of state employees at HSRA can effectively manage such a large team of consultants.

The Legislature Lacks Good Information for Decision Making

In general, the availability of good data leads to better decision making. However, our analysis indicates that the Legislature suffers from a lack of good information that is needed to make decisions about the appropriation of funds for the high-speed rail project. Given the very large size of this project, its extended construction timeline, and the novelty of this type of project for California, it is reasonable that some key project decisions must be based on the best available analysis and assumptions rather than hard numbers. For example, it is unlikely that any ridership or revenue forecast is going to give a definitive, reliable answer to whether the high-speed rail system can be successfully completed and operated without significant state support. However, in other cases, HSRA has not shared critical information with the Legislature. For example, while HSRA has provided an estimate of the cost of the part of the line between San Francisco, Los Angeles, and Anaheim, it has not provided its estimate of the total cost of all phases of the project that go beyond this route. Below, we discuss some of the information gaps that are making it more difficult for the Legislature to make decisions about the project.

Project Lacks a Detailed Business Plan. Our review indicates that the Legislature lacks a detailed business plan to guide multi-billion-dollar decisions it must make about high-speed rail projects. Such a plan would include, at a minimum, updated cost estimates, anticipated funding amounts and sources adjusted to reflect current political and economic realities, a range of forecasted ridership and revenue estimates, a proposed business model, and a discussion of risks the project may encounter. The existing business plan was prepared in 2009 and, while it included all of the information that was statutorily required at the time, it lacks adequate detail for the Legislature to use to make major funding decisions. The lack of detail prompted the Legislature to adopt budget bill language in 2010 requiring HSRA to provide this kind of information. However, this language was later vetoed from the budget bill by the Governor. The HSRA has committed to providing an updated business plan in October 2011. At the time this report was prepared, however, the Legislature had received little of the information it needs to decide what activities it should fund in the 2011-12 budget plan and beyond.

Cost Estimates Outdated and Likely Understated. Based on our analysis, the high-speed rail project is likely to cost much more than the $43 billion originally estimated by HSRA for the first phase from San Francisco to Anaheim. That estimate was prepared in 2009 based on very

preliminary information concerning which alignments would be selected for the track and what the design of the system would look like.

For example, based on the state's agreement with FRA, the cost of the initial construction segment between Fresno and Bakersfield alone is now estimated to be $4.5 billion, which is 57 percent greater than was assumed in the original plan. As shown in Figure 4, the costs for program management, final design, and construction are each significantly higher for the 100-mile Central Valley segment now planned for construction than compared to the full 120-mile segment originally proposed from Fresno to Bakersfield. (This initial construction segment estimate also does not include the cost of completing the line into Bakersfield, nor the $200 million station planned for that city.)

If the cost of building the entire Phase 1 system were to grow as much as the revised HSRA estimate for the 100-mile segment discussed above, construction would cost about $67 billion. This extrapolation of costs, however, is based on the cost increase for a relatively straight-forward and uncomplicated segment of the proposed rail line. It is possible that some of the more urban segments could be even more significantly underestimated. The uncertainty surrounding the eventual cost of the system represents a significant challenge to the Legislature's ability to make sound decisions about appropriation for the project.

Figure 4

Comparison of Costs for Fresno to Bakersfield Segment

(Dollars in Millions)

	2009 Estimate	2011 Estimate
	Fresno to Bakersfield	Initial Construction Segment
Estimated Length of Segment in Miles	**120**	**100[a]**
Project Component		
Program Management	$361	$667
Real property acquisition and early work	603	583
Final design and design-build construction contracts	1,879	2,912[b]
Project reserves and unallocated contingency	—[c]	309
Total	**$2,843**	**$4,471**
Increase in Project Costs		**57%**

[a] The initial construction segment ends just outside Bakersfield.
[b] Excludes the Bakersfield station included in the 2009 estimate.
[c] Reserves and contingency funding are included in the estimated construction costs of the 2009 estimate.

GOVERNOR'S 2011-12 BUDGET WOULD MOVE PROJECT AHEAD

The Governor's proposed budget for HSRA generally follows the schedule outlined in the most recent high-speed rail business plan. This proposal would fund HSRA at a level that is comparable to the level of funding it is receiving in the current year. The proposal is significant because it moves the project ahead as planned. As a result, the Legislature may be asked to appropriate billions of dollars in 2012-13.

The budget plan includes $192 million to fund HSRA activities ($90 million in federal funds and $102 million in Proposition 1A bond funds). Almost all of the funding ($185 million) is for work that will be performed by consultants. This

includes contracts for program management, financial consulting, public outreach, and work on the development of the high-speed rail system. In March 2011, the Legislature passed (but has not yet sent to the Governor) SB 69 (Leno), a state budget bill which would appropriate the $7 million in funding for HSRA's state administrative costs. This is an increase of roughly $1 million from the current year's administrative budget, primarily due to increased intergovernmental contract costs (as described below).

Budget Proposes Increased Funding for State Legal and Administrative Services. State law requires that all state agencies use the Department of Justice (DOJ) as legal counsel, unless specifically exempted by law. As the project moves forward, HSRA is increasingly in need of legal support for activities such as the project's environmental process, land acquisition, and contracting for construction. Because of this, the budget includes a request for additional funds for legal work performed by DOJ. In addition, HSRA contracts with the Department of General Services (DGS) for accounting, administrative, and personnel services. While it is common for small departments to have such contracts, larger departments such as Caltrans often have in-house, specialized staff to accomplish this work.

Major Budgetary Decisions Are Looming. The Legislature will face some major decisions about the appropriation of billions of dollars in state and federal funds beginning in 2012-13. In that fiscal year, HSRA plans to enter into a number of large design-build construction contracts which, in contrast to traditional construction procurement processes, award the design and construction of a project to a single entity. Some of the design-build contracts could be worth more than a billion dollars. The Legislature will likely be asked to appropriate the state and federal funding for entire, multiyear contracts in 2012-13 so that HSRA can award these types of contracts.

This situation poses a dilemma for the Legislature. Because these huge appropriations are not needed now, they are not formally before the Legislature as part of the 2011-12 budget plan for HSRA. On the other hand, unless directed otherwise, HSRA will proceed during the interim with extensive development activities based on its decisions about the project, such as its choice of the initial Central Valley segment for construction. If the Legislature has concerns about the path the high-speed rail project is on, it will diminish its opportunity to have meaningful input over such issues as the location of the first construction segment if it waits until 2012-13 to do so.

THE LEGISLATURE FACES CHALLENGING CHOICES

Given the significant challenges to the high-speed rail project, and the large and looming budgetary decisions, the Legislature faces some near-term challenging choices. Should the state continue with the project as planned, slow it down dramatically and attempt to address some of the problems that threaten its success, or stop the project completely? At the root of this decision is whether the significant potential benefits of moving forward with the project outweigh the significant risks to the state. Unfortunately, at this time, there is little reliable information available to inform this decision.

Project Could Have Some Positive Outcomes. The proposed high-speed rail system could have some positive fiscal benefits. For example, HSRA estimates that this project would alleviate the need to build 3,000 new lane-miles of freeway, and 5 airport runways and 90 new departure gates—at a cost of nearly $100 billion—that would otherwise

be necessary to accommodate intrastate travel by 2030. This is because the state's population is projected to grow steadily for decades and significant investment in transportation infrastructure is expected to be needed to accommodate travelers between Northern and Southern California. In theory, if those travelers choose the high-speed rail system instead of other modes, the project could reduce the state's overall infrastructure costs.

In addition, beginning construction of the project could have some positive effects on the state's economy. For example, the infusion of federal funds and potentially other private funds from outside the state, such as international partners who might invest in the project, would benefit the overall economy at least in the short run. Some work, such as the construction of rail cars, could be performed by California firms.

However, it is unclear how much of the funding allocated for high-speed rail would be spent in California. Because California has never before built this mode of transportation, some out-of-state or international firms may have the critical expertise needed by the state to successfully build such a large-scale and complex rail system. For example, according to the Bureau of Labor Statistics, 97 percent of all operators of the track-laying equipment that HSRA indicates it would use for the project reside in other states. To the extent that the state procures the services of firms from outside of California to develop and construct the rail line, as well as to obtain rolling stock and equipment for the system, the overall economic benefit to the state could be diminished.

Finally, some have argued that investing in high-speed rail infrastructure instead of other modes of transportation could lead to improved environmental outcomes, such as better air quality. This is because the proposed system will be electrically powered and not require fossil fuels the way most automobiles and aircraft currently do. However, other studies have suggested that the project may not realize such improved environmental outcomes, especially if levels of ridership were low to moderate.

If Project Moves Forward, Changes Needed to Increase Likelihood of Its Success. Given the threats to the project that we described earlier, we have concluded that the Legislature should only proceed with the project if two significant changes in direction occur. First, the Legislature needs more time and the flexibility to make critical decisions relating to the project, even though this would require modifications to the federal restrictions that have been imposed on the project. Second, given the magnitude of the state's investment in the project, significant improvements are needed in the way both day-to-day and longer-term strategic decisions to manage the project are made. We have concluded that the current governance structure for the project is no longer appropriate and is too weak to ensure that this mega-project is coordinated and managed effectively. These changes in governance need to be made soon, in our view, because HSRA has already begun the process to move toward the award of multi-billion dollar construction contracts for the project. We describe in more detail below the specific changes in direction that we have concluded are necessary.

STATE NEEDS MORE TIME AND FLEXIBILITY TO DEVELOP PROJECT

As mentioned earlier, the FRA has imposed some impractical restrictions on the development of California's proposed high-speed rail system. If the state were granted flexibility from the federal government to spend federal funding on a more reasonable timeline, and where it will have the most benefit, the project's chances of success could be significantly improved in a way that might also better accomplish some of the federal program's stated goals in funding the project.

Flexibility Regarding Federal Restrictions Is Needed. Based on our analysis, we recommend that the state seek substantial additional flexibility regarding the federal restrictions on the project. First, the state needs more time than federal authorities are currently allowing to critically evaluate which segment or segments should be constructed first. Second, the state should be allowed to choose the segments to be constructed. Among the critical factors that we believe the state should consider in choosing a segment for construction are: (1) whether a passenger rail system on a selected segment could generate the ridership and revenues to be financially successful and operate without a state subsidy; (2) how much of the segment could be completed with the funds now available; and (3) the potential benefits from building a particular segment, including its potential impacts on traffic congestion and air quality. The nearby text box (see next page) describes some alternative segments within Phase 1 that our analysis indicates should be carefully evaluated because of their potential to provide greater overall benefits to the state than the Central Valley route.

Whatever routes were chosen as a result of this additional evaluation, gaining the additional federal flexibility needed to take more time on this critical decision could pay other dividends. For example, it might better enable the state to properly prepare environmental documents necessary for the project to move forward and decrease the likelihood of delay from litigation. Such project delays can endanger the state's ability to meet deadlines as well as increase the overall cost of the project.

More Flexibility Could Help the State Meet Federal Goals. Putting a hold on the Central Valley segment, and asking the federal government for more flexibility to examine this and other alternatives more carefully, carries the inherent risk that the state could lose some or all of the committed federal funding. However, we believe it is likely that the federal government would ultimately work with the state to grant more flexibility, for the following reasons.

- ***California Offers a True High-Speed Rail Option.*** The federal administration has prioritized dedicated high-speed rail projects, or projects that result in trains running at speeds of over 110 mph and generally do not share tracks with freight rail. California's project is currently the only federally funded high-speed rail system in the country. (Some federally funded "high-speed rail" projects in other states would incrementally improve existing passenger rail services, but none of these are dedicated high-speed rail projects.) For this reason, it is in both FRA's and the state's best interests that the project succeed.

- ***Federal Authorities Are Already Showing Flexibility.*** The FRA has already demonstrated a willingness to adjust timelines

in order to accommodate the state. For example, the state was recently granted more time to complete the environmental clearance on the initial construction section to give the contractors an opportunity to identify ways to reduce the cost of construction. In addition, in February 2011, the President issued a memorandum to all federal agencies directing them to provide more administrative flexibility to

Alternative Segments Could Provide More Benefit to the State

For several reasons discussed earlier, there is a significant risk to the state that the statewide high-speed rail system envisioned in Proposition 1A will never be fully completed. It is possible that only a segment or two of the system will ultimately be constructed. The High-Speed Rail Authority has chosen to begin construction of the system on a 123-mile segment from near Fresno to Bakersfield. If this is the only portion of the system built, the state would realize some service improvements for the San Joaquin intercity rail corridor, such as shorter trip times and better on-time service. This intercity rail service currently runs six trains daily in each direction. However, based on our analysis, other segments could provide greater benefit to the state's overall transportation system even if the rest of the high-speed rail system were not completed. Below, we describe three segments that warrant consideration as alternatives to the Central Valley line.

- ***Los Angeles-Anaheim.*** This highly travelled corridor includes commuter, freight, and intercity rail traffic, which could benefit greatly from corridor improvements along the alignment shared with the proposed high-speed rail system. Fifty passenger trains run daily through this corridor, at times sharing tracks with roughly 75 freight trains. In addition, grade separations that could be built as part of a high-speed rail project would improve the flow of auto traffic along the corridor because vehicles would no longer have to stop and wait for passing rail. Finally, to the extent improved passenger rail service in this corridor led to increased ridership, it could reduce pressure on other transportation modes and decrease the need for infrastructure projects that expand the capacity of the roads.

- ***San Francisco-San Jose.*** Similar to Los Angeles-Anaheim, capital projects in this heavily congested corridor could improve both rail and auto traffic. This segment currently hosts 86 commuter trains daily, and freight trains use it at night.

- ***San Jose-Merced.*** The state provides intercity rail service from Sacramento to Merced (and on to Bakersfield), and a separate rail service between Sacramento and San Jose. If the state chose the segment between San Jose and Merced for a high-speed rail project, the state would essentially "close the loop" and enable a significant increase in passenger rail mobility between the Central Valley and the Bay Area. This benefit from high-speed rail construction would result even if high-speed trains ultimately were never operated on the system. A recent report prepared by a Bay Area transportation commission projects that the number of commuters traveling daily from the Central Valley to the Bay Area will double by 2030, adding 60,000 commuters a day.

state and local governments in order to improve outcomes in federally supported programs at a lower cost.

- ***Federal Authorities Could Get a Greater Payoff From Their Investment.*** Granting the state more flexibility from federal deadlines and restrictions could ultimately lead to greater achievement of the federal program's own policy goals. For example, in addition to ARRA's goals of creating jobs and stimulating economic recovery, the federal law was intended to improve the nation's energy independence, improve environmental quality, and make regional transportation systems more efficient. A better decision on where to start construction of California's high-speed rail system could lead to a greater payoff in each of these areas.

How Greater Federal Flexibility Could Be Achieved. A federal extension of the timeline for expending these funds could be accomplished in a couple of ways. Current FRA regulations require that the state spend federal funds and its state matching funds at the same time. Under one approach, the state could request that FRA adjust its regulations to allow the state to first spend the federal funds it has received and, after those funds have been fully spent, to spend the amount of state funds committed under the federal program. The amount of state funding committed to the project would not change—only the timing of when the funds are spent. This approach seems reasonable given that the ARRA funds required no match and therefore are being spent by other recipients in this way. Such a change would enable the state to spend the ARRA funds twice as quickly once construction begins and make the 2017 expenditure deadline more easily achievable.

In addition, FRA indicates that it has the administrative discretion to remove the current requirement that its grant award to California be used for construction of the high-speed rail line beginning in the Central Valley. Changing this requirement opens the possibility to begin construction anywhere on the proposed line between San Francisco, Los Angeles, and Anaheim. Such a change would give the Legislature more latitude to consider the state's interests when determining the initial construction segment of the high-speed rail system.

MORE EFFECTIVE GOVERNANCE COULD IMPROVE LIKELIHOOD OF PROJECT SUCCESS

If the Legislature chooses to move forward with the high-speed rail project, it could also address issues we have identified pertaining to the governance of the project—how both day-to-day and longer-term strategic decisions about the project are made and implemented. Our analysis indicates that a more effective governance structure could help to remedy some of the serious problems faced by the high-speed rail project and improve its chances for success. The concept of good governance is discussed in the nearby textbox (see next page).

Our analysis found no one best way to structure an organization to improve governance, and that there is no particular organizational structure that can guarantee effective governance. Management experts hold the view that an organization's structure should ideally be adjusted on a regular basis to reflect its current goals and the particular circumstances it faces, both of which can change dramatically, sometimes even within a few years' time. Ultimately, an appropriate

organizational structure allows for the best decisions to be made that lead to the best outcomes.

Our analysis indicates that the current organizational structure for California's high-speed rail project does not meet these tests. For example, in our view, the current decision making process for the project does not ensure that this statewide effort, funded heavily with state bond funding, is developed primarily with the state's best policy and fiscal interests in mind. In the sections that follow, we explore several issues related to the way decisions are made about the project. In particular, we discuss (1) whether the project should be treated as a state project or a business enterprise and (2) options for modifying HSRA's organizational structure to improve the governance of the project.

Is This Phase of High-Speed Rail Development a State Project or Business Enterprise?

A first step toward improving the governance structure for the high-speed rail system is to consider the state's relationship to and responsibilities regarding the project. In other words, is the project at this phase of development principally a state effort, or should the state minimize its involvement and allow the project to be developed and administered like a business enterprise?

Because of the magnitude of this project and the length of time it is likely to take to develop and construct the project, the answer to this question will depend largely on which phase the project is in. Figure 3 shows the overall timeline and the different phases of implementation anticipated for the high-speed rail system. (The timeline for the project, which is based on HSRA's business plan, differs from that of a traditional PPP. We describe these differences in more detail in the textbox on page 19.) As we noted earlier in this analysis, the original role of HSRA was to explore the feasibility of creating a state high-speed rail system and to do some initial planning for the system. The state's role in the project is already changing dramatically as it begins the development and construction phase,

Characteristics of Good Governance

Governance refers to the process of decision making and how decisions are implemented. Public governance involves the management and control of public resources and the delivery of programs and services. According to numerous studies of national and international organizational management, good governance principles generally include:

- Participation—the involvement of key stakeholders.
- Accountability—holding decision makers responsible for what they say and do.
- Transparency—clarity and openness in the decision-making process.
- Responsiveness—addressing the priorities and expectations of the public.
- Efficiency—the extent to which resources are used without waste, delay, or negatively impacting future generations.

Effective governance structures are more likely to make decisions and take actions that define expectations, grant power, and ensure that performance meets expectations. Such an approach can better ensure the successful completion of large projects within budget and on time.

and would change again during its subsequent operation and maintenance. As a result, it is reasonable that the state's governance approach to the project should similarly evolve over time. We discuss these concepts in more detail below.

High-Speed Rail Is More Similar to Large State Projects During Development and Construction

Figure 5 summarizes some of the key characteristics of what we refer to in this report as state projects—meaning, projects in which state government plays the primary role in the day-to-day as well as long-term strategic decision making. The figure also summarizes the characteristics of what we refer to in this analysis as business

Figure 5

Characteristics of State Projects and Business Enterprises

Characteristic	State Project	Business Enterprise
Funded by General Fund dollars	X	
Funded by large amount of federal funds	X	
Financially self-supporting		X
Similar work done by private entities		X
Competes with private market to deliver services		X
Requires coordination with other levels of government	X	
Contractors perform most work	X	X
Use of eminent domain	X	
Oversight of public funds	X	
Completion of environmental studies and mitigation	X	
High level of accountability to the public	X	
Takes some risks to realize higher returns		X

How the Phases of This Project Will Differ From Traditional PPPs

In all public-private partnerships (PPP), there is a point in the project's development when the public sector's involvement diminishes and the private partners take significant control. Generally, for transportation-related PPPs, this happens after the initial design, environmental clearance, and right-of-way acquisition occur, but before construction is fully under way. This is because it is often best for the public entity to bear the early risks to the project—such as right-of-way acquisition—because the public sector can use such tools as eminent domain to accomplish the task that are not available to the private sector. Typically, control of a PPP project is ceded to the private sector for later phases of a project's development in order to potentially lower the project's overall cost and to reduce the risks that the sponsoring public agency would otherwise bear for its development.

California's high-speed rail project will differ from this typical model because of the enormous cost and risk involved with the project. While a consortium of large firms can generally bear the risk of a project costing up to a few billion dollars, the High-Speed Rail Authority's (HSRA's) latest business plan indicates that this project will conservatively require $10 billion from the private sector to complete. According to HSRA, the high amount of risks and costs mean that the state will need to follow a different project development model. For this project, HSRA expects to spend most or all the public funding first and oversee the dozens of large construction contracts. Then, toward the completion of the project, HSRA expects that a private partner or consortium will provide funding to finish the system and procure rail cars, likely with a long-term operations and maintenance contract to recover its costs over time.

enterprises—activities for which the state cedes significant administrative responsibility and control to a more autonomous state agency or even a private partner.

Our analysis found that, during the upcoming development and construction phases, the high-speed rail project more closely resembles a state project. For example, state bond funds (with debt service costs paid for by the General Fund) will finance a significant portion of the project's costs. These monies are typically managed by the state rather than private or quasi-private entities. In addition, the success of the completed system will largely depend on its integration with local transit, the state's intercity rail, and the state highway systems. The high-speed rail project is also more like a state project in that, in order to complete its work, the implementing organization must engage in a number of activities traditionally accomplished by government rather than private enterprise. These activities include, for example, the use of eminent domain to acquire large swaths of property.

All of these factors suggest the need for a more "hands-on" involvement by the state at this phase in both day-to-day administrative and strategic decisions. At this stage of implementation, the high-speed rail project in many ways resembles the construction of the state highway system. The development of the state's highways was assigned to Caltrans, a department which, like most state departments and agencies, is subject to strong oversight and controls by both the executive branch and the Legislature, such as through the annual state budget process.

In contrast, California Housing Finance Agency (CalHFA), which takes the lead on a number of the state's affordable housing finance programs, has operated with considerably more autonomy under the model of a business enterprise. CalHFA is financially self-supporting, meaning that it does not require public funds from either the state or federal government to operate. It does work similar to private entities, and in some ways competes with the private sector to provide home-mortgage loans. At this time in its development, the high-speed rail project shares none of these qualities with CalHFA.

Options for Improving Governance of the High-Speed Rail Project

As discussed above, our analysis suggests that an autonomous state operation does not seem to be a very good fit with the critical set of tasks now required to move forward with a high-speed rail project. This is of concern for several reasons. First, the current governance structure for HSRA grants its commission more independence and autonomous decision-making ability than we believe is appropriate for this phase of the project's development. Second, because of the significant impacts on the state's transportation network, we believe the project should be integrated into the state's current transportation planning structure. Finally, preserving the current organization of HSRA could lead to redundancies within state government and inefficient allocation of resources. Below, we present three options for changing the governance of what we view as fundamentally a state project rather than a business enterprise.

High-Speed Rail Project Could Be Shifted to Caltrans

One option to address the problems identified above would be to shift some or all of the responsibility for overseeing the construction of the high-speed rail line to a more conventionally governed state agency or department. Caltrans may be the best choice, in our view, because this project is consistent with Caltrans' mission of delivering transportation construction projects and improving mobility throughout the state.

Caltrans has decades of experience in delivering large transportation infrastructure projects and has a large complement of engineering staff in place. Because Caltrans is already subject to close oversight by both the executive branch and the Legislature, moving the project from HSRA to the department could improve accountability for critical project decisions. Such a change could also somewhat reduce the need for external contractors and provide the state with greater staff resources to ensure appropriate oversight of the sizeable number of contracts that would be required for the construction of such a project.

While we believe there are merits to shifting the project to Caltrans, there are reasons to be concerned about such a shift. For instance, transportation experts within and outside state government have expressed concerns about Caltrans' ability to effectively implement this project, citing the department's longstanding focus on highways and lack of expertise in working with private partners on PPPs. In addition, our office has in recent years found some significant management problems in Caltrans. Finally, some experts suggest that the project should be viewed not as a state project but as a PPP under which the state would cede a significant level of control to private partners. (As we indicate in a previous text box, however, this project is not expected to follow the traditional PPP schedule and would be the state's responsibility for many years before the private partners become involved.)

Notwithstanding these issues, the benefits of moving the responsibility of this transportation project to Caltrans may outweigh these potential concerns. The Legislature would have to consider carefully exactly what operational changes might be needed for Caltrans to successfully manage development and construction of a new high-speed rail system. Below we further discuss the advantages of moving the project to Caltrans.

Caltrans Staff Could Perform Many Project Tasks. While much of the more specialized project work would remain the responsibility of contractors, some of the proposed contracted work could be moved to Caltrans. Under this alternative, HSRA's executive director and staff would be shifted to Caltrans to oversee the remaining contract activities, as well as to develop plans for future partnerships to help finance and operate the rail system. Examples of work that could be turned over to Caltrans staff include:

- ***Negotiating and Overseeing Large Contracts.*** Caltrans contracts with engineering and construction firms for the completion of major transportation projects. For example, the department has entered into multiple, large contracts ranging from hundreds of millions of dollars to $1.75 billion for the construction of the San Francisco-Oakland Bay Bridge.

- ***Acquiring Property for Transportation Rights of Way.*** Caltrans has roughly 500 staff in Sacramento and in district offices that acquire property for the state's transportation projects. This staff is already well-trained in the specific actions necessary to acquire rights of way for transportation projects, including assessment of property values, relocation of utilities, and the successful negotiation of land purchases. For instance, the HSRA is planning to adopt Caltrans' manual for right-of-way acquisition as its own because of the department's experience and in-depth knowledge of the process.

- ***Developing Public Support for Transportation Projects.*** The department maintains a public information office with over 60 staff, as well as hundreds of staff

in its planning division. Many of these staff regularly attend local public meetings concerning state projects and by doing so work to gain public support for the department's proposals. In addition, the department has established relationships with local agencies, regions, and other stakeholders which could greatly benefit the high-speed rail project. The HSRA is currently contracting with Caltrans to conduct inter-governmental relations with many of the entities potentially affected by the project.

- ***Providing Legal Support for Project Development and Delivery.*** Caltrans has about 280 attorneys, many of whom are experienced in handling legal issues regarding the environmental review process for transportation projects. In addition, Caltrans' staff handle legal issues relating to the acquisition of property for rights of way and transportation-related contracting issues.

- ***Interacting With State and Federal Administrative Processes and the Legislature.*** Caltrans has significant experience dealing with the typical state administrative processes such as working with the state's Department of Personnel Administration to hire staff and DGS to award contracts. Caltrans also has extensive experience working with the federal Department of Transportation, including meeting reporting requirements and effectively communicating the state's needs. Finally, Caltrans has a good understanding of the state and federal budget and legislative processes.

Caltrans' Capital Outlay Process May Be Better-Suited to High-Speed Rail. Currently, the high-speed rail project is subject to a review and approval process administered by the state Public Works Board (PWB). The main purpose of this process is to ensure that capital outlay projects are developed in compliance with the Legislature's intent when it appropriated funding for them. This process is generally used for non-transportation projects such as the construction of office buildings and courthouses or the acquisition of open space land.

However, certain departments, such as Caltrans, are not subject to the PWB process. Traditional transportation projects use a different capital outlay process which we find is better-suited to the high-speed rail project. Caltrans' process takes into account various challenges unique to transportation projects, such as the timing of design, environmental clearance, and right-of-way acquisition. Because Caltrans is so familiar with delivering transportation projects, shifting this project development and construction work to the department could increase the odds that the high-speed rail project will be successful.

Developing Project Within Caltrans May Foster Integration Into Transportation System. If the high-speed rail project were moved to Caltrans, the project that is ultimately built is likely to be better integrated into the state's transportation system. Currently, decision making about the state's transportation system is not integrated and it is unclear to what extent Caltrans and HSRA are working together to address the state's overall transportation needs.

For instance, we have been advised by Caltrans that HSRA contractors have only recently begun engaging the department in discussions about the added traffic volumes around some proposed train stations. In some cases, Caltrans staff have formally commented in writing through the environmental process that the additional traffic at the proposed

stations could be considerable. For example, the most recent business plan projects nearly 13,000 boardings daily at the Palmdale station alone. In theory, close coordination of the train project with improvements to mass transit systems operated by other state or local transportation agencies could head off potential traffic problems. Without a robust transit system, however, many riders would likely rely on their cars to reach this station. Thus, this potentially significant increase in traffic to and from this station should be included in state and local transportation planning long before the station opens. This kind of coordination is critical to the success of the project.

Some Operational Changes Within Caltrans Would Be Needed. While Caltrans has developed and overseen the construction of the state highway system, it has no experience with high-speed rail projects. In addition, our office has raised concerns in the past about aspects of the operations of Caltrans and, in particular, its staffing levels for its division responsible for overseeing the development and construction of capital projects. Therefore, the Legislature should carefully consider what operational changes would be needed within Caltrans if it were assigned this task. The ultimate strategy should be to take advantage of the department's experience and expertise while maintaining the current organization's access to particular project delivery tools necessary for successful completion of a high-speed rail project.

One way to accomplish this would be to create a separate division within Caltrans, led by a high-level deputy director who would have overall responsibility to manage the construction project. The current HSRA executive director could transition to this role to minimize any disruption to the project. In addition, all of the current HSRA staff and position authority could likewise shift to be the initial staff of this new Caltrans division. In this way, the transfer of the project to Caltrans could be accomplished in a way that was not unduly disruptive to the project. Finally, any such shift of the project to Caltrans should be accompanied by the enactment of statutory changes that would allow Caltrans to apply certain project delivery tools specifically for the high-speed rail project that are authorized in state law. These would include the unlimited ability HSRA now has to enter into contracts with private entities for the design, construction, and operation of the system. Caltrans, in contrast, is currently limited in its ability to hire contractors and can only complete 10 percent of its construction management and oversight work using consultants. This proposed change would not affect Caltrans' current limitations for development of other projects, but would apply only to the work to complete the high-speed rail project.

Given the complexity of the high-speed rail project, Caltrans should also be given the flexibility now afforded to HSRA to use design-build contracts for its development and construction. Also, if the project were to be shifted to Caltrans, we believe certain positions within this new Caltrans division should be exempted from state civil service requirements to help the state attract individuals from the private sector with the experience to develop this project, negotiate multi-billion dollar contracts, and oversee the system's implementation.

HSRA Could Become a New State Department

Another option to better integrate the high-speed rail project into the traditional state governance structure is to create a new state department for this purpose within the Business, Transportation and Housing (BTH) Agency. This new department could focus exclusively on the development of the high-speed train system or, in the alternative, be combined with other state rail programs, such as the intercity rail system that

is now overseen by Caltrans. A recent study by the California Research Bureau found that a new department combining state rail duties would likely be beneficial, but could also increase state costs.

A new department, whether focused on high-speed rail or encompassing all state rail responsibilities, theoretically could have a number of advantages over the current organization. The BTH Agency could better coordinate the activities of this new department with other state transportation efforts, including those of Caltrans. In addition, the creation of such a department could give rail system development issues more visibility with the public and give rail projects more prominence in policy and budget decisions. Pending legislation, AB 145 (Galgiani), as amended on March 16, 2011, would establish a new Department of High-Speed Trains under the BTH Agency to focus exclusively on the high-speed rail project. The new department proposed in the legislation would be modeled after Caltrans, but would continue to take policy direction from the HSRA board and the director would still work at the board's pleasure.

There are some disadvantages to this approach. Creating a new department would likely increase state administrative costs and result in the duplication of activities already being performed by other state departments. For example, the new department would likely require the establishment of a new division for the acquisition of rights of way, duplicating the work of a Caltrans division already doing the same type of work. Similarly, the new department would need to duplicate the expertise that Caltrans already has in negotiating and entering into various types of innovative contracts with the private sector. In addition, a new department may be less able to integrate the project into the state's transportation system because it would lack Caltrans' familiarity with transportation planning processes.

HSRA Board Could Be Eliminated or Modified

As described earlier, HSRA consists of a nine-member board with considerable power to direct the development and implementation of the high-speed rail system. Along with the other changes described above, the Legislature may wish to consider the elimination or modification of this largely autonomous board that now controls the administration of the high-speed rail project.

Legislature Could Eliminate the Board. As discussed earlier, the current governance structure for development of the high-speed rail system does not require that the board keep the overall interests of the state in mind, including state fiscal concerns, as it makes critical decisions about the project. The current lack of accountability of the board to either the Legislature or the executive branch, in our view, creates a serious risk that it will continue to make decisions about the train route and finances without paying sufficient regard to the future consequences for the state. In addition, we are concerned that such a board—particularly one lacking requirements for members who have the specific technical expertise to manage such a massive construction mega-project—is not appropriate for the next phase of this work.

For these reasons, the Legislature may wish to consider eliminating the board and ceding both day-to-day and strategic long-term project management decisions either to Caltrans or to a new state department. Either choice, in our view, would likely be more accountable for its decisions to the executive branch and the Legislature. In either case, the California Transportation Commission (CTC), which works closely with Caltrans, could play an important role. The commission already is assigned the responsibility of advising and assisting the Secretary of the BTH Agency and the Legislature in formulating and evaluating state policies and plans for California's transportation programs. The important role that

the current board serves in obtaining public input about the project could also be accomplished by changing the statutory mission of the CTC so that it would hear high-speed rail issues in the same way that it currently hears public concerns about state highway projects.

Legislature Could Modify the Board's Existing Role and Structure. If the Legislature chose to retain the board, state law could be changed so that it would operate in an advisory rather than a decision making role. For example, Florida's Statewide Passenger Rail Commission was created within the Florida Department of Transportation (FDOT) to monitor the efficiency, productivity, and management of all publicly funded passenger rail systems and to advise FDOT and the legislature on policies and strategies relating to state-owned passenger rail systems. This new advisory board could be combined with the already statutorily established peer review group, tasked with reviewing the project's planning, engineering, and financing plans and reporting to the Legislature, or it could remain a separate board to monitor the management of the project and provide general advice about the system to the Legislature and the administration.

Regardless of whether the panel retains its authority as a decision-making body or becomes an advisory panel, the composition of the board could be changed to require that at least certain members have specified technical expertise, such as in construction management, infrastructure finance, or the operation of rail systems. Appointments to a number of state boards, such as the California Energy Commission and the Air Resources Board, similarly require that its members have specific areas of experience or knowledge. Pending legislation, SB 517 (Lowenthal), as amended on April 25, 2011, would vacate the membership of the current board and require new appointments of members with various changes, including requiring specific expertise of some members.

Another potential change to the membership of the board would be to include some representation for local elected officials or transit agencies in areas along the route of the high-speed system. This could help to ensure that the potential impacts of the design and alignment of the high-speed rail system in those communities are fully considered and that the high-speed rail line is better integrated with local mass transit and other transportation systems. This could be accomplished in a number of ways, such as giving each affected county a board seat, or creating a joint-powers authority (JPA) similar to the Capitol Corridor JPA, which oversees the Northern California intercity rail system between the Sacramento region and the Bay Area.

LAO RECOMMENDATIONS: INCREASING THE ODDS THAT HIGH-SPEED RAIL WILL SUCCEED

The proposed high-speed rail system offers some significant potential benefits to California's transportation system—including a possible reduction in overall transportation spending for highway and airport expansions, and improvements in air quality and the environment. As we have also noted in this report, however, a number of concerns—ranging from the availability of and federal conditions on the funding for the project, lack of good information for decision making, and problems with the way project decisions are governed—pose threats to its successful completion.

Thus, major budgetary and other challenges related to this project loom in the near term. The Legislature will likely be asked to appropriate

billions of dollars for the high-speed rail project in 2012-13. The deadlines and conditions attached to federal funding will make it increasingly difficult over time for the Legislature to make any changes it may wish to consider to the proposed configuration or prioritization of segments of the rail system, or to the organization (HSRA) now charged under state law with the responsibility of building it. Some of these factors have already led to debatable decisions about the future of the project, such as HSRA's commitment to start building a segment in the Central Valley.

Accordingly, if upon weighing these factors the Legislature chooses to go forward with the project, we believe there are some key steps that it should take now to improve the likelihood of its successful development. In general, our recommended strategy involves (1) seeking greater flexibility from federal authorities on the project deadlines and the choice of a rail segment involving use of federal grant funds and (2) improving the governance and oversight of the project. The recommendations below represent the first steps that the state could take so that, in the long run, the efforts undertaken to develop and implement the high-speed rail project can provide the best outcomes for the state as a whole.

Seek Flexibility From Federal Restrictions and Evaluate Construction of Alternative Segments

In our view, the Governor's budget proposal to continue to fund activities that would move the high-speed rail project forward as now proposed is asking the Legislature to take a huge leap of faith given the threats to the success of the project. For example, the proposed start to the project in the Central Valley represents a significant gamble that additional unidentified funding to complete adjacent segments of the project onward to urban areas will be forthcoming. The proposed approach creates a serious risk that, after billions of state bond funds have been spent and significant future debt-service costs have been incurred, the state will be left with a rail segment unconnected to major urban areas that has little if any chance of generating the ridership to operate without a significant state subsidy. In our view, this is inconsistent with the parameters for the project set forth by the voters in Proposition 1A, who explicitly directed that any future rail system be capable of operating without a state subsidy.

In addition, we have concluded that the Legislature needs more reasonable deadlines and flexibility from the federal government so that it can conduct a full evaluation of the Central Valley segment and alternative starting points for the system. The granting of this flexibility from the federal government would also give the Legislature time to consider how the governance of the project could be improved, given that the current organizational structure is unlikely to be up to the task of development and construction of the new rail system. In our view, the state has a potent argument that the granting of such flexibility by federal authorities would not only protect the interests of the state, but would ultimately lead to greater achievement of the federal program's own policy goals to improve the nation's energy independence, improve environmental quality, and make regional transportation systems more efficient.

Therefore, we recommend the Legislature take a series of steps to ensure that the state prioritizes spending of state funding for segments that have the best chance of actually being constructed and operated.

First, we recommend that the Legislature reject HSRA's 2011-12 budget request for $185 million in funding for consultants to perform project management, public outreach, and other work to develop the project. We recommend that the Legislature appropriate only the $7 million in funding for HSRA state administration provided

for in the pending budget bill, SB 69. This would provide the resources needed by HSRA to complete the tasks we describe below that we believe are warranted to move the project forward in a way which is more likely to be successful.

Second, we recommend that the Legislature adopt budget bill language directing HSRA to renegotiate the terms of the federal funding awarded to the state by the FRA. The language would specifically request that FRA permit the state to first spend the federal funds it has received and, after those funds have been fully spent, to spend the state bond funds that it has committed. As noted earlier, such a change would enable the state to spend the ARRA funds twice as quickly once construction begins and make the 2017 expenditure deadline more easily achievable. It would not change the state's financial commitment to the segment supported with federal funds. The language would also request that FRA use its administrative discretion to remove the current requirement that its grant award to California be used only for construction of the high-speed rail line beginning in the Central Valley. This would open up the possibility for the state to begin construction of whatever segments on the proposed route between San Francisco, Los Angeles, and Anaheim that further evaluation shows makes the most sense. Further, we recommend the Legislature only proceed with the project if this flexibility from the federal government is forthcoming.

Third, we recommend that the Legislature adopt budget bill language requiring HSRA to reevaluate which segment or segments of the high-speed rail line should be constructed first. The language would specify that this reevaluation would proceed only if federal authorities granted the state the additional flexibility described above. The language would further direct that this study be completed by October 2011. In our view, this would provide sufficient time to complete such a study without creating delays that would make it impossible to meet the renegotiated federal deadlines. Because the HSRA may need additional resources to conduct this study, we further recommend the adoption of budget bill language authorizing the administration to seek an augmentation of its funding during 2011-12 for this purpose. The HSRA should be directed to identify the top two options, including its recommended option, for beginning construction based on criteria identified by the Legislature. The criteria for evaluating the best segment to build first should be included in the budget bill language and could include:

- The potential statewide benefits from building a particular segment, such as its impact on improving mobility and reducing congestion or improving environmental outcomes.
- How far along in the environmental review and design process the segment is and when construction could begin.
- Whether a passenger rail system on the selected segment could generate on its own ridership and revenues to be financially successful and operate without a subsidy.
- How much of a segment could be completed with available funds, and under the assumption that little or no additional funding might be forthcoming for the high-speed rail project.

Fourth, we recommend that the HSRA provide specific updated information about the project, such as updated cost estimates for the entire proposed rail line, to help the Legislature make more informed budgetary decisions about its investment in the high-speed rail system. We recommend that the Legislature require that this

report be completed by HSRA by October 2011 in order to facilitate timely decision making about how the project could best move forward.

Lastly, we recommend that the Legislature adopt budget bill language authorizing the administration to seek an augmentation of HSRA's budget that would allow it to proceed with the development of the segment approved by the Legislature based on the results of the evaluation described above.

This entire multistep process we have outlined above should take no more than a few months and therefore should not significantly affect the state's ability to meet the federal deadlines for the project—assuming, of course, that federal authorities provide the state with the additional flexibility we believe is necessary for the project to move ahead with the best chance of success.

Structure High-Speed Rail Development as a State Project

Because the characteristics of the high-speed rail project at this time more closely resemble a state project, we recommend its governance and oversight structures be crafted accordingly. We believe the best way to do this is to move the responsibility for development and construction of the system to Caltrans, the state's existing department responsible for delivery of state transportation projects. As noted earlier, the project would benefit greatly from Caltrans' expertise in such areas as the acquisition of rights of way, developing local support, and negotiating and overseeing large construction contracts. We believe that moving the project to Caltrans is a better option than creating a new department. Establishing a new department would likely increase state administrative costs and result in the duplication of activities already being performed elsewhere. However, due to the project's unique nature, the move would need to ensure that Caltrans has some of the project delivery tools available for development of high-speed rail currently granted HSRA to enable the state to effectively deliver the complex rail system.

Accordingly, we recommend that the Legislature pass a bill this session that shifts the responsibility for the development of the project from HSRA to Caltrans. In addition, we recommend that the Legislature remove decision-making authority over the high-speed rail project from the HSRA board to ensure that the state's overall interests, including state fiscal concerns, are fully taken into account as the project is developed.

If the board is retained in an advisory role, we recommend that state law be changed to specify that some members have specifically designated expertise in such fields as engineering, infrastructure finance, and rail systems. Representatives of local agencies and/or mass transit systems along the route of the proposed high-speed rail system could also be provided some representation on such an advisory board. Such changes would address concerns we about the board's accountability to the executive and legislative branches, and would provide the organizational structure the project needs at this time if the project is to succeed.

LAO Publications

This report was prepared by Eric Thronson, and reviewed by Farra Bracht. The Legislative Analyst's Office (LAO) is a nonpartisan office which provides fiscal and policy information and advice to the Legislature.

To request publications call (916) 445-4656. This report and others, as well as an email subscription service, are available on the LAO's website at www.lao.ca.gov. The LAO is located at 925 L Street, Suite 1000, Sacramento, CA 95814.

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City Council Resolution of support for Eshoo/Simitian/Gordon's statement of "High Speed Rail Done Right", June 14, 2011

RESOLUTION NO. 6005

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MENLO PARK SUPPORTING THE JOINT LEGISLATIVE STATEMENT BY CONGRESSWOMAN ESHOO, STATE SENATOR SIMITIAN, AND STATE ASSEMBLYMAN GORDON REGARDING "HIGH SPEED RAIL DONE RIGHT" ON THE PENINSULA

WHEREAS, on April 18, 2011 Congresswoman Eshoo, State Senator Simitian, and State Assemblyman Gordon held a joint press conference in the City of Menlo Park and issued a joint statement (Exhibit A) regarding "High Speed Rail Done Right" on the Peninsula; and

WHEREAS, the City of Menlo Park has been actively engaged in reviewing plans for the California High Speed Rail Project and urging the State to consider alternatives that would reduce impacts to Menlo Park and other Peninsula communities; and

WHEREAS, the California High Speed Rail Authority has been criticized by the California Legislative Analyst's Office, the Bureau of State Audits, the California Office of the Inspector General, the High Speed Rail Peer Review Group, and the Institute of Transportation Studies at the University of California at Berkeley; and

WHEREAS, the City of Menlo Park supports efforts to improve regional transit services in Menlo Park including the modernization of Caltrain.

NOW, THEREFORE BE IT RESOLVED by the City Council of the City of Menlo Park that:

1. The City of Menlo Park commends the leadership and vision of Congresswoman Eshoo, State Senator Simitian, and State Assemblyman Gordon in developing the joint statement of April 18, 2011 regarding "High Speed Rail Done Right."

2. The City of Menlo Park supports the key elements of the joint statement including:

   a. The elimination of an elevated structure or viaduct in Menlo Park from further consideration.

   b. The possible development of a high speed rail system between San Jose and San Francisco that is integrated with Caltrain and is designed primarily as a two-track system to fit within the existing Caltrain right-of-way.

   c. The development of a project level Environmental Impact Report for the possibility of a San Jose to San Francisco segment that limits the scope of the High Speed Rail Project to utilize the same tracks as Caltrain, which would be at-grade with appropriate design that minimizes impacts in Menlo Park or below existing grade, and within the Caltrain right-of-way.

3. The City of Menlo Park urges the State to accept these proposed changes to the High Speed Rail Project that would reduce project costs, eliminate property takings, reduce impacts to local communities, improve regional transit systems, and still achieve the state-wide objectives for High Speed Rail service.

I, Margaret S. Roberts, MMC, City Clerk of the City of Menlo Park, do hereby certify that the above and foregoing Resolution was duly and regularly passed and adopted at a meeting by said Council on fourteenth day of June, 2011, by the following vote:

AYES: Cline, Fergusson, Keith, Ohtaki

NOES: None

ABSENT: None

ABSTAIN: None

RECSUED: Cohen

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Official Seal of said City on this fourteenth day of June, 2011.

Margaret S Roberts

Margaret S. Roberts, MMC
City Clerk

EXHIBIT A

ESHOO, SIMITIAN, GORDON STATEMENT ON HIGH-SPEED RAIL

Since the passage of Proposition 1A in 2008, each of us has expressed our support for "high-speed rail done right," by which we mean a genuinely statewide system that makes prudent use of limited public funds and which is responsive to legitimate concerns about the impact of high-speed rail on our cities, towns, neighborhoods and homes.

To date, however, the California High Speed Rail Authority has failed to develop and describe such a system for the Peninsula and South Bay. For that reason, we have taken it upon ourselves today to set forth some basic parameters for what "high-speed rail done right" looks like in our region.

We start with the premise that for the Authority to succeed in its statewide mission it must be sensitive and responsive to local concerns about local impacts. Moreover, it is undeniable that funding will be severely limited at both the state and national levels for the foreseeable future.

Much of the projected cost for the San Jose to San Francisco leg of the project is driven by the fact that the Authority has, to date, proposed what is essentially a second rail system for the Peninsula and South Bay, unnecessarily duplicating existing usable infrastructure. Even if such a duplicative system could be constructed without adverse impact along the CalTrain corridor, and we do not believe it can, the cost of such duplication simply cannot be justified.

If we can barely find the funds to do high speed rail right, we most certainly cannot find the funds to do high speed rail wrong.

Accordingly, we call upon the High-Speed Rail Authority and our local CalTrain Joint Powers Board to develop plans for a blended system that integrates high-speed rail with a 21st Century CalTrain.

To that end:

• We explicitly reject the notion of high-speed rail running from San Jose to San Francisco on an elevated structure or "viaduct"; and we call on the High-Speed Rail Authority to eliminate further consideration of an aerial option;

• We fully expect that high-speed rail running from San Jose to San Francisco can and should remain within the existing CalTrain right of way; and,

• Third and finally, consistent with a project of this more limited scope, the Authority should abandon its preparation of an EIR (Environmental Impact Report) for a phased project of larger dimensions over a 25 year timeframe. Continuing to plan for a project of this scope in the face of limited funding and growing community resistance is a fool's errand; and is particularly ill-advised when predicated on ridership projections that are less than credible.

Within the existing right-of-way, at or below grade, a single blended system could allow high-speed rail arriving in San Jose to continue north in a seamless fashion as part of a 21st Century CalTrain (using some combination of electrification, positive train control, new rolling stock and/or other appropriate upgrades) while maintaining the currently projected speeds and travel time for high-speed rail.

The net result of such a system would be a substantially upgraded commuter service for Peninsula and South Bay residents capable of accommodating high-speed rail from San Jose to San Francisco.

All of this is possible, but only if the High-Speed Rail Authority takes this opportunity to rethink its direction.

Over the course of the past 18 months the Authority has come under considerable criticism from the California Legislative Analyst's Office, the Bureau of State Audits, the California Office of the Inspector General, the Authority's own Peer Review Group and the Institute of Transportation Studies at the University of California at Berkeley. The Authority would do well to take these critiques to heart, and to make them the basis for a renewed and improved effort.

Frankly, a great many of our constituents are convinced that the High-Speed Rail Authority has already wandered so far afield that it is too late for a successful course correction. We hope the Authority can prove otherwise.

An essential first step is a rethinking of the Authority's plans for the Peninsula and South Bay. A commitment to a project which eschews an aerial viaduct, stays within the existing right-of-way, sets aside any notion of a phased project expansion at a later date, and incorporates the necessary upgrades for CalTrain - which would produce a truly blended system along the CalTrain corridor - is the essential next step.

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Report: Peer Review Group's summary comments on Legislative Analyst Office Report, July 1, 2011

SUMMARY AND RECOMMENDATIONS

Following the May 11, 2011 hearing of the Senate Select Committee on high-speed rail, the Peer Review Group was asked to review and comment on the LAO's May 10, 2011 report. While we want to be responsive to the Legislature within the parameters of our statutory responsibility, we also are aware that our comments, no matter how well-intended, are usually viewed as critical of the High-Speed Rail project. The members of the Peer Review Group support the development of high-speed rail in California. In discharging our responsibilities, our input has been focused on constructive suggestions and recommendations that are intended to improve the project and its chances for success. It is in this context that we offer the following comments.

After review and discussion of the LAO Report, we agree that the project is truly at a "Critical Juncture" posing perhaps the last available opportunity for the Legislature and Governor to ensure that the project is on the right course before a commitment to construction is irrevocable. We recommend that the Legislature emphasize the importance of filing the 2011 Business Plan in October, 2011, as planned. The plan should contain the best available answers to a number of requirements, including:

- **A proposed business model**. Who are the parties to the project and what roles will they play? This should include ownership, maintenance and management of infrastructure as well as rolling stock. It should also include an estimate of the financial role each party will play and, if the local, State and Federal Governments are expected to provide uncompensated investment, how much and when;
- **Updated cost estimates**, including allowances for uncertainty and for as yet undefined segments;
- **A well-defined financial plan**, containing confirmed commitments for the anticipated required funding amounts and sources based on existing programs and identification of potential future sources along with analysis of the viability of those sources. If significant private or local money is involved, the amounts should be clearly related to the role each party is to play;
- **Updated ridership, revenue, operations cost and maintenance cost estimates**. This should include estimates of ridership, revenue, operations and maintenance costs (including pricing assumptions) and the range of uncertainty in the estimates that statistical analysis of the data requires. The demand estimates should also support an updated evaluation of the public benefits (consumer surplus, safety, emissions, CO_2 reduction, congestion, etc.) that the project is expected to generate;
- **The risks in undertaking the project** – investment and operating – should be clearly defined and estimated, and the degree of risk of each party should be defined along with an indication that the parties understand and accept the risks assigned to them.

We understand the LAO's observation that, if the project receives no funding beyond the initial Federal contribution, starting the project wholly within the Central Valley poses a higher risk to the State than an approach that does some upgrading at the ends in addition to new construction in the middle. Given current circumstances at the federal level, a case can be made for a request to the Obama Administration by the Authority and the State for more flexibility to apply funding in a way that reduces the State's risk if no addition Federal funding can be confidently expected. If such an application is made, it should also be accompanied by an intensified effort by HSRA with local agencies to develop joint, transparent and acceptable programs for phased development on the local lines. This might result

in a "blended" approach that allocates enough funding for significant improvement on the ends while retaining the majority of the funding in the Central Valley.

Pending completion of the 2011 Business Plan addressing the issues discussed above, HSRA **should** proceed with design and planning efforts as needed and not be restricted solely to the $7 million in administrative spending as proposed by the LAO Report. This will avoid unnecessary disruption in project timing. However, HSRA **should not initiate any obligations for construction** until the Legislature and Governor have made an expedited review of the 2011 Business Plan and agreed on a course of action. This would be the best point to address the future management structure and organization of the HSRA.

DISCUSSION

During a hearing before the California State Senate Transportation and Housing Committee on May 11, 2011, Will Kempton, the Chairman of the Peer Review Group, was asked to provide the Group's comments on a report issued by the Legislative Analyst's Office (LAO) entitled "High-Speed Rail Is at a Critical Juncture."[1] Although the legislated mandate of the Group is to comment on materials developed by the High-Speed Rail Authority and not on reports by other Agencies, we will provide comments on the major issues raised by the LAO Report as requested by the legislative committee.

We want to emphasize the importance of "**Critical Juncture**" in the title of the report. It is no exaggeration to say that the next few months may offer the last chance for the Governor and Legislature to assess and influence the overall plans for the project. Although over $250 million has been spent on planning and preliminary design, nothing has been acquired and no commitments have been made for actual construction. That is about to change. Within the next year, the Authority will make large commitments of State and Federal money on a schedule that will significantly raise the cost of any future changes. If there is ever going to be a final assessment and confirmation of the future and structure of the HSR program, **now** is the time to do it.

There is a sense of urgency in the LAO's statement: "Our review indicates that the Legislature lacks a detailed business plan to guide multi-billion dollar decisions it must make about high-speed rail projects. Such a plan would include, at a minimum, updated cost estimates, anticipated funding amounts and sources adjusted to reflect current political and economic realities, a range of forecasted ridership and revenue estimates, a proposed business model, and a discussion of risks the project may encounter."[2] **The Peer Review Group agrees with the statement and has said so in our November and April letters.**[3]

It is worthwhile to discuss some of the implications of this statement and thereby summarize our previously expressed concerns:

- *A proposed business model.* In previous letters we have highlighted this critical issue because the business model brings together the sources of money, allocation of costs and benefits, and

[1] Legislative Analyst's Office, "High-Speed Rail Is at a Critical Juncture," May 10, 2011 [called "LAO Report"]
[2] LAO Report, pg 11.
[3] see http://www.cahsrprg.com/documents.html

apportionment of risks. We fully understand that the history of the project has made development of a final business plan difficult. Without a more fully developed business model, though, it is impossible to ensure that each of the parties or agencies involved has in fact understood and accepted the role assigned to it. For example, the Authority's preliminary project approach would have the Authority award Design/Build contracts for the infrastructure (track, signaling, electrification and many stations) while subsequently determining an operating arrangement for HSR services and agreeing on operating rights for provision of local commuter services. We do not necessarily disagree with this approach, but we emphasize that it requires the Authority to have available the entire funding needed to complete the system before any revenue is generated and it requires that the Authority have the staff and managerial ability to oversee the contracts, neither of which is true today. More critically, the approach implies, but does not state explicitly, that a significant part, perhaps all, of the Authority's infrastructure investment will not be recovered from fees charged to, or payments from, the operator(s). If this is correct, then **the Authority's measurement of public benefits should be fully developed and carefully reviewed in order to justify the net public outlay.**

- *Updated cost estimates.* The latest construction cost estimates were published in December, 2009,[4] but were developed nearly two years ago. Much has been learned about the project since, some of it unfavorable. Many critical details (for example alignment and scope between San Francisco and San Jose and between Anaheim and LA, and re-consideration of the Grapevine route) remain undecided. In fact, there is still no actual experience that validates either the cost estimates or their range of uncertainty. The Group's experience indicates that preliminary cost projections are likely to be optimistic, but we also acknowledge that the Authority might accomplish a lot with value engineering. **The fact remains that the actual cost of the project is still unknown with any degree of confidence but the cost is "trending upward" according to the Authority: an update is urgently needed.**
- *Anticipated funding amounts and sources adjusted to reflect current political and economic realities.* As the Authority itself has emphasized, completion of the program is primarily based on sources of Federal, State, private and local public funding that do not currently exist. Unless the financial condition of the State and the Federal Government change significantly for the better, such sources may well not exist in the foreseeable future. Neither the State nor the Federal Government has given any guarantee of future funding beyond the amounts already allocated. **This poses the clear risk that whatever is started will not be finished and whatever is finished may have only limited utility.** In any **event, the State may be faced with a limited utility project (albeit partly funded with federal grants) or may need to decide to complete the project using only its own resources if there is no further Federal funding.**
- *A range of forecasted ridership, revenue and operating cost es timates.* The last ridership and revenue estimates were done in the 2008[5] and 2009 Business Plans and they have both been the subject of sustained and continuing criticism. The Authority is now conducting an in-house peer review of the demand forecasts. In addition, the revenue and related demand and operating cost

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[4] CA HSRA Report to the Legislature December 2009 ("2009 Business Plan")
[5] CA HSRA, "California High-Speed Train Business Plan, November 2008"

estimates in the two business plans were quite different because of different assumptions about the competitive pricing strategy to be followed by the eventual operator. The Plans also lacked a detailed analysis of competing transportation systems, which is essential to calculating the competitive value of the HSR system and is an essential input to the ridership study. To be fair to the Authority, demand and revenue estimates for a new mode of transport are always uncertain, partly because underlying economic forces (population and income) are inherently hard to predict, and partly because the data needed to do accurate modal split estimates are rarely complete. Even so, **the current demand forecasting review efforts will in all likelihood not produce a set of estimates that have been fully subjected to review and comment by all interested parties. These efforts will not produce an output that has been thoroughly and transparently vetted by the various outside agencies involved in the project.**

- *Discussion of risks.* There are no risk free "mega-projects." None. The interaction among sheer size, long time frame of construction and operation, uncertainty of underlying economic factors and an inevitable mixture of often conflicting public and private interests guarantees that outcomes will differ from expectations. Perhaps more important, when risks are not fully understood and discussed at the outset, some (or all) of the parties involved will feel deceived when the inevitable problems emerge, eroding the trust and commitment that is always needed to finish a project of this size when problems are encountered. There are manifest risks to this project, some of which are being sharpened by the experience to date: final route selection is incomplete and local opposition emerges when any route approaches finalization; construction cost and schedules are uncertain and subject to upward pressure; demand estimates are in dispute and subject to a significant range of uncertainty that could produce outcomes ranging from financial profit to economic pain; and, full funding to complete the project is not yet available and may not be forthcoming, certainly not on the schedule proposed. In plain language, there are still significant gaps and problems with Plan A, and there is no Plan B. While the Group fully appreciates that risks can never be eliminated and that there is an understandable element of "vision" in the HSR plan, we question whether all of the parties involved fully understand the degree and allocation of the risks. **Whatever else is accomplished before construction commitments begin, it is essential that major risks be defined, clarified, understood, allocated and accepted to the degree possible.**

Against this backdrop, the LAO Report made two general recommendations. **First**, the Legislature should in effect suspend the project, appropriating only about $7 million in administrative costs, while the Authority requests flexibility from FRA on the spending of Federal money and on the choice of an initial construction segment. During this time, the Legislature would await the submission of the 2011 Business Plan in October and would presumably base a decision to go ahead on the results of the submission. **Second**, responsibility for planning and management of the construction of the railway would be shifted to Caltrans and the authority of the HSRA Board would be trimmed accordingly. In addition, membership on the Board overseeing the HSR project would be recomposed to include appointees with specific skills in the issues posed by the HSR project, such as project finance, mega-project design and construction, major heavy rail operations, management of large business organizations and integration of project requirements with public policy considerations.

Suspending the project while awaiting FRA decisions and the 2011 Business Plan

Any decision to slow down project development work must be weighed in the context of FRA directions and requirements placed on available Federal funding. However, there appears to be little to lose and much to be gained by a requirement from the Legislature that the Authority make no commitments to construction until there are answers to the concerns discussed above. In fact, **a consistent message of the Group's letters has been our doubts whether we could render a favorable opinion on an application for use of Prop 1A funding for construction in the absence of these answers. In any event, we understand the approved 2011-2012 budget does not suspend funding for the HSRA.**

Spending ARRA money first and Prop 1A funds later

The prospects for a successful application to FRA for flexibility either in the spending deadline or in the segments to be started first are not clear.[6] The requirement for obligating funds by September 30, 2012, and the spending deadline of September 30, 2017 is fixed by law and FRA lacks authority to grant a delay. It is possible that a proposal to spend Federal money first and State money later will be workable, but the Authority **and the State** will have to submit concrete plans for assuring that the State's share will be guaranteed. Given FRA's experience in Florida, Wisconsin and Ohio, where the Federal money was accepted and then rejected, something more than statements of good intentions will be required.

Starting on the ends rather than in the middle

Reconsidering the decision to start in the Central Valley rather than in the end segments, such as LA-Anaheim or San Francisco-San Jose (the LAO Report also mentioned San Jose-Merced) may also be problematic for the FRA. The original dilemma was that starting on the end segments would have the advantage of yielding permanent benefits in short haul rail passenger services whether or not the project is ultimately completed. This would lower the risk of achieving an incomplete project with little utility, but have the disadvantages that none of these services would demonstrate high-speed intercity rail service at the outset (the objective of FRA), and that local environmental opposition might postpone completion well beyond the 2017 deadline. Clearly neither of the end sections is today sufficiently prepared to submit environmental documents to meet the expenditure deadline of September 2017 required by ARRA and a focused effort will be required to put them in a better position.

By comparison, starting in the Central Valley offers a chance to construct high-speed demonstration track and appears to have less environmental opposition, but would yield an asset of very little value if the project cannot be funded beyond this segment alone. Subsequent analysis has shown that the Central Valley segment would not actually demonstrate high-speed service because it would not be electrified. Even if the segment were electrified, it would have no operational value because the ends of the segment are not electrified and it is impractical to change locomotives once, much less twice. Moreover, without electrification, the highest attainable speeds would be 110 MPH or less and would involve heavy diesel-powered rolling stock that might substantially damage the track when subsequently

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[6] On May 25, 2011, Undersecretary for Policy Roy Kienitz informed Mr. van Ark of the Department's preference for starting in the Central Valley and of the legal requirements for spending ARRA money before the end of 2017.

used by HSR equipment. Experience has cast substantial doubt on the assumption that construction would be subject to less environmental opposition than the end segments. Some perspective would be helpful in understanding the relative stakes.

The existing services that would be improved by starting HSR on the San Francisco-San Jose and LA-Anaheim segments are Caltrain (11.6 million passengers and 266.8 million passenger-miles annually),[7] the Pacific Surfliners (2.6 million passengers and 216.1 million passenger-miles), Metrolink (12.2 million passengers and 419.9 million passenger-miles) and the Capitol Corridor (1.6 million passengers and 101.2 million passenger-miles). By comparison, the only existing service in the Central Valley, the San Joaquin, carries about 1.0 million passengers and 139.5 million passenger-miles.[8] Thus, there are slightly more than **28 times** as many **proven** passengers (7.2 times as many passenger-miles) on the end segments as in the Central Valley so that the benefits if the project is not completed beyond the funds currently available would be much greater by starting on the ends rather than the middle.

Two other advantages might be gained by starting some part of the project on the ends. First, actual construction experience would be gained in time to assess the future of the project if costs are significantly higher than current estimates. Second, some experience with the results of demand estimates would be gained and the on-going efforts to improve the existing demand estimates would have some opportunity to take effect before a commitment to the entire project is made. In addition, the investment on the Peninsula could be related to subsequent triggers supporting added capacity as demand meets specified levels.

Phased development

FRA and the Authority were aware of some of these considerations from the beginning and it is not obvious that anything has changed to encourage the FRA to reconsider even though it has the authority to do so. At the very least, **it will be up to the Authority and the State of California** to make a convincing case to the Obama Administration if the question is to be reopened. If, for example, the Authority and the State could show that a more balanced approach to phased development in the Peninsula and LA-Anaheim would both save money and act to reduce local opposition, this might be convincing. Doing so would require that the Authority aggressively seek to work cooperatively and transparently with local agencies to develop joint investment and operating plans that would much more closely align the interests of HSR with local transport. The Authority and the State would also have to provide assurance that they would proceed with the remainder of the project if the end segments are successful, while the Federal Government should likewise commit to acquire more funding at the Federal level.

A blended approach might also be possible in which essential investments would be made at the ends to support the capacity needed for initial operation of HSR trains along with local services in the beginning years of the HSR system while at the same time getting substantial work started in the Central Valley. This might involve some level of investment at each end for electrification and initial capacity while still

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[7] Caltrain, 2011 Annual Passenger Counts, April 2011, pgs 6, 14 and 18.

[8] Amtrak, Monthly Performance Report for September 2010, pg A-3.5 and pg C-1.

leaving enough funding in the Central Valley to gain experience with building high-speed track. We acknowledge that an amount spent on each end would not necessarily provide full capacity for the ultimate HSR system: it could, however, if jointly planned, provide the starting capacity for the initial years of operation and would provide much stronger support for the future investment program once initial HSR demand has been demonstrated. In the meantime, it would be of considerable benefit to far more passengers than investment in the Central Valley alone would yield.

The LAO Report makes a reasonable case that the risk to the State of California of partial completion would be greater by starting only in the Central Valley than on the end segments and that the results of an appeal to FRA for a revision of sequencing and spending should be a significant consideration to the Legislature in evaluating the overall risk of the project. Thus, we recommend that the Legislature await the reaction of the Authority and the final position of the Obama Administration on this issue before making a decision to continue or delay project development activities. In addition, we consider the results to be provided in the 2011 Business Plan addressing the issues defined earlier in this report to be an absolutely essential input to a more confident decision of whether to proceed to construction. For these reasons we recommend that commitments to **construction** should not be made until the results of the above issues have been given expedited review by the Governor and the Legislature. At the same time, we believe that funding of on-going design work, planning, and environmental studies as well as acquisition of adequate Authority staff should continue in order not to lose momentum as the review proceeds. A virtual cutoff of funding could force the total demobilization of the consultant teams on the project with the dispersal of key talent that would be difficult to reassemble later if the decision is made to go forward in a timely and cost effective manner.

Changing the HSRA organization

The Group has consistently taken the position that the current organization of the HSRA does not lend itself to meeting the challenge posed by the HSR project. We agree with the LAO Report that a change is critical. Our conclusion has been based on the clear disjunction between the needs of the project for a very large increase in the range and level of managerial skills in the near term, on the one hand, and the often significant limitations posed by the State bureaucratic requirements, on the other. Transferring the project to Caltrans would do little to remove these crippling restrictions.

Unfortunately, **without an agreed upon business model to work with, it is not possible to develop a better organization with any confidence**. The HSR project is not a simple (albeit very large) highway construction project: if it were, it might be appropriate to shift responsibility for planning and implementation to Caltrans as suggested by the LAO Report. Indeed, certain aspects of the LAO's proposal clearly do deserve consideration. Caltrans may well be the best State agency to complete the environmental studies and requirements along with basic ROW alignment and acquisition and it has long been suggested that this responsibility be sub-contracted from HSRA to Caltrans. The problem is that Caltrans has rightly not been able to accept the task without the kind of staff augmentation (positions, as well as money) that has proven difficult for HSRA to achieve. Another practical difficulty is that some aspects of HSR design, especially track, signaling, electrification and rolling stock, require skills that no existing California State agency possesses. To put this into perspective, during each of the peak four

construction years of the project, the annual outlays for the HSR project would be about 20 percent greater than the entire Caltrans capital outlay program, and would involve a skills mix much more diverse than Caltrans has on board.[9] Transfer of the Authority to Caltrans would not be a simple task.

A related problem is the fact that high-speed railways are **systems**, not easily separable parts. Gradients, curvature, track components, signaling, electrification and rolling stock must work together. Ideally the critical elements of all of these would be specified by the future **operator** of the system in order to ensure compatibility and safety of the system. Neither Caltrans nor the HSRA has the required operating expertise. HSRA's consultants may have some of the required expertise, but cannot speak for the viewpoint of the future operator.

The importance of the operator's input into the details of the systems design cannot be overstated. The operator should have major input into the design and siting of the maintenance facility, siting of high speed crossovers, line side signaling and the layout of stations, among other features. Consequently it is the norm to let a concession contract for the operator several years prior to the start of commercial operations and before many critical engineering decisions are made. This is particularly important if the operator will also acquire the rolling stock for the project. Moving rapidly to construction now may well be important to spending Federal money before the 2017 deadline, but it might do so at the cost of disrupting the link between designer/constructor and operator. Among other things, this means that any design decisions that cause (or can be argued to cause) safety or efficiency problems will be the responsibility of Caltrans, or HSRA, or the designer/builder, but not the future operator.

More broadly, the LAO Report identifies a concern with Caltrans' "...lack of expertise in working with private partners on PPPs,"[10] which is exactly the problem that the project faces even now in the issue of the lack of operator/designer/builder feedback, and which will become much more serious when the time comes to develop, award and oversee (or regulate) the operating arrangement. The Authority does not have this expertise either, and the Group is deeply concerned that neither the Authority nor Caltrans will be able to acquire it in a timely way if the Department must stay within existing State agency limitations on positions, salaries and skills. The California Transportation Commission (CTC) is the only state agency that has developed criteria for the review and implementation of PPP projects; to date, the CTC has reviewed and approved only a handful of much smaller projects which are in the early stages of development.

This is a critical issue. At a minimum, California faces a $43 billion investment project involving passenger revenues of over $70 billion in the first 30 years of operation.[11] This would create a rail passenger operator with revenues about 8 times the size of BART and Caltrain combined and about one-third larger than the **entire** Amtrak system. It would have revenues nearly three times as large as the largest U.K. rail franchise – and the experience of the U.K. Government in designing, awarding and overseeing their franchises has been anything but trouble free. It does not encourage unbounded

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[9] See LAO May Report, pg 9 and http://www.catc.ca.gov/meetings/agenda/2011Agenda/11Jan/Tab014_4_2_Rev.pdf

[10] LAO Report, pg 21.

[11] Estimate based on Authority's 2009 Business Plan. Revenues are undiscounted.

confidence in an agency (Caltrans or HSRA or the CTC) with limited experience in the rail PPP field and without the skills, resources and authority to do the job.

In fact, the U.K. experience with franchising has highlighted a number of issues that will need to be considered in the HSRA's 2011 Business Plan. First, how will the HSR infrastructure be owned, managed, maintained and operated? Second, if the private sector is to operate the trains on the system, what form will the relationship take? These are not abstract problems for which the answers can be delayed for the present and then allowed to emerge over the years. At least some consistent version of the entire picture is needed before the Group and the Legislature can assess whether the organizational structure, along with the related resources and skills, are appropriate.

The Group continues to believe that the HSR project management will need full flexibility to hire and pay the staff needed for the project over all its phases and will need to handle procurement rapidly and efficiently in a way that the standard public procurement rules do not facilitate. Real trouble lies immediately ahead if the current organization proceeds to awarding construction contracts without being restructured to ensure adequate accountability for taxpayer funds. The project is larger than the entire Caltrans construction program, and will need maximum flexibility in management to ensure quick decision making capability and a minimum of organizational interfaces.

As we have argued in our earlier letters, the organization needed would be more consistent with some form of State-owned corporation in which public oversight would be exercised by public appointment and confirmation of the Board of Directors but with management free to act with the flexibility of a corporation. However, we recognize that the Legislature's desire for direct public control could lead in the direction of continuing the Authority as a public agency. In this case, consideration should be given to the establishment of an organizational structure similar to Caltrans within the overall control of the Business Transportation and Housing agency. The Board of this organization could assume functions similar to the California Transportation Commission, responsible for programming and allocating funds to various segments as proposed by the HSRA staff. The new agency should retain the freedom to contract with both private and public sector entities for various services, and perhaps utilize the creation of public benefit corporations where appropriate.

At best, we conclude that greater short term reliance on Caltrans would only provide a temporary solution to part of the problem. A transition to Caltrans would not resolve the staffing problems related to salaries and staffing issues facing the Authority in acquiring a top quality team within the strictures of the State Civil Service system.