June 30, 2010

Dan Leavitt
California High-Speed Rail Authority
925 L Street, Suite 1425
Sacramento, CA 95814
Attn: San Francisco to San Jose Section Preliminary Alternatives Analysis Report Comments

RE: San Francisco to San Jose Section Preliminary Alternative Analysis Report Comments

Californians For High-Speed Rail (CA4HSR) is a grassroots group of California residents dedicated to ensuring that the California High Speed Rail (CA HSR) network is sufficiently funded and supported. Additionally, Californians for High-Speed Rail is working to ensure that the development of high speed rail (HSR) in California is done in a way that best serves all citizens, and in particular, the future riders of the CA HSR network.

We are submitting this letter to provide our scoping comments regarding the San Francisco-to-San Jose section of the environmental review process being undertaken by the California High Speed Rail Authority (Authority).

Increase Scope of Project Planning Beyond Standard Environment Review and Preliminary Engineering

Californians For High Speed Rail is concerned that California High Speed Rail Authority (Authority) consultants are making critical project design decisions without first undertaking a thorough, holistic, and big-picture project planning analysis. Should the project continue on this path, the resulting system is likely to provide sub-standard service to customers while increasing construction costs by hundreds of millions to billions of dollars. Several recommendations are discussed below regarding possible changes to the project planning model.

Dramatically Increase Coordination of Planning Efforts with other Operators in the Corridor

Currently, the Authority seems to be planning with minimal coordination with Caltrain and UPRR freight operations. Instead, project assumptions seem too structured to avoid having to resolve constraints through coordination with other entities. **Our organization believes that project planning needs to be much more pro-active in the San Francisco-to-San Jose Section to find synergetic solutions that transcend the limitations and constraints presented the current operations.** Therefore, project planning needs to go beyond standard environment review/preliminary engineering in a way that works to resolve such constraints prior to making solidifying design assumptions.

Authority consultants also need to be much more cognizant of what Caltrain is planning and be actively engaged in coordinating planning efforts to avoid working at cross purposes with Caltrain. It is our understanding that Caltrain is moving forward with its plans for electrification and the new signaling system

(i.e. CBOSS). Unfortunately, based on meetings we have had with Authority consultants, there appears to be an insufficient amount of oversight of Caltrain project designs and little regard to whether these designs are compatible with the Authority's HSR system. This lack of attention to coordination potentially risks hundreds of millions of dollars of HSR stimulus money on incompatible Caltrain projects. If these projects proceed as currently designed, there is a high likelihood that much of the new Caltrain infrastructure would need to be removed and reconstruction to accommodate HSR infrastructure. Furthermore, it is our belief that any reconstruction after Caltrain upgrades will be politically infeasible and will damage the ability for HSR to be implemented successfully in California. This must be remedied as soon as possible. For details of Californians For High Speed Rail's concerns regarding incompatibilities of the Caltrain electrification project with high speed rail, please refer to the attached letter recently written to Caltrain staff regarding these issues.

Increase Scope of Authority Consultants

Given the lack of staff the Authority has, the scope of work of Authority consultants is simply not sufficient to cover all the necessary planning needed to coordinate the complex set of factors that the San Francisco-to-San Jose Section presents. Therefore, we strongly recommend that the scope of work consultants are charged with be immediately reexamined and increased to allow for more coordination between HSR consultants and Caltrain staff as soon as possible. It appears that the scope of Authority consultants is limited to performing standard environment work and preliminary engineering work. While this is essential work, we strongly recommend that the Authority board authorize budget and contract changes to allow consultants to expand their work beyond narrowly focused environmental and preliminary engineering to allow them perform additional coordination between HSR, Caltrain, and the tenant freight operator's capital and operating plans.

Dedicate a Full-Time Staff Position to the San Francisco-to-San Jose Section

We also strongly suggest that one full time Authority staff member be assigned to the San Francisco-to-San Jose Section to help coordinate all the complex issues along the Peninsula related to issues involving freight, Caltrain, the urban design interface with cities, and other issues. We understand the Authority may be authorized to get five new positions soon. One of these positions should be assigned to the San Francisco-to-San Jose section, the most complex section of the entire statewide system. For example, is anyone paying attention to the new development being proposed in same area where the Authority is considering putting a maintenance yard (near Bayshore Caltrain Station)? A lack of coordination, including discussions with local officials, could drive up costs dramatically to obtain land if development moves forward and receives entitlements at this location.

Bring on Top Urban Planning and Urban Design Professionals

Top urban planners and urban designers need to be brought on board, potentially independent of the engineering contractors, to help facilitate the public outreach efforts. Furthermore, plans and urban designers should be charged with performing a legitimate context-sensitive solutions (CSS) process, whereas the current CSS effort is lacking a systematic and thorough approach. It has become clear to our organization that the current model consultants are following does not prioritize urban planning and urban design. The current approach seems to utilize a mixture of engineering staff and public relations subcontracts, rather than bring on professionals who specialize in community planning and urban design.

Create a Joint Service Plan for CA HSR and Caltrain

A joint service plan for both CA HSR and Caltrain, based on market demand analysis for both operators, needs to be the basis for all infrastructure planning in this section. The market analysis and timetable planning would determine the levels of Caltrain service and stations used for express service and transfers between express and local service. It would also create an integrated timetable that schedules how the two

services would jointly use the four tracks, allowing both operators to reap the capacity and flexibility benefits of a four track railroad.

Re-examine Assumptions

The increase in scope to project planning discussed above should lead to a re-examination of existing assumptions which engineering work is currently being based on. CA4HSR is concerned that several assumption the Authority consultants are using may be of such a restrictive standard, that the resultant design of the San Francisco-to-San Jose Section may become cost prohibitive and operate in a sub-optimal manner. It is our understanding that there are several key assumptions that significantly impact the approach to planning along the entire San Francisco-to-San Jose Section. We would like the Authority to reconsider the following assumptions to provide a more cost effective and user-friendly system.

Assumption #1 – Continuation of freight operations without alternation.

We would like to see an analysis of the design and cost impacts to the San Francisco-to-San Jose section if freight operations were eliminated. We support the idea of freight continuing at night hours. However, if it turns out that accommodating a low-level of freight during these hours will cost upwards of hundreds of millions to billions of dollars, we would like the Authority to seriously consider exploring mitigations to either eliminating freight all together or substantial changes to freight service. These changes could include:

a) Higher grades,
b) Electric-only/hybrid operations, and/or
c) Limiting axle weight to 19 metric tons.

All of the above restrictions would fit within the Authority's concept for "Special Medium-Weight Freight" included in the Program EIS/EIR.[i] Investing tens of millions in freight modifications or mitigations could save hundreds of millions of dollars in reduced construction costs. An analysis of such costs tradeoffs should be completed as soon as possible and be included in the discussion of the forthcoming Supplemental Alternative Analysis Report.

Assumption #2 – Continuation of State freight rules that require train platforms be lower than HSR platforms.

The Authority should consider the impact on the project if state rule CPUC General Order 26 were to either be eliminated or waived. We feel this rule is unnecessary in a modern rail corridor where freight would operate by itself during nighttime hours. We believe the Authority should work to get a waiver at a minimum. Or if freight operations were cease, this would not longer even be an issue. The importance of resolving this constraint can not be overstated. By eliminating this requirement along the San Francisco-to-San Jose section, common platform heights will become possible. This will also greatly affect the types of rolling stock Caltrain will purchase (another critical coordination issue).

Assumption #3 – Maximum 1% Grade Percentage for HSR Tracks

The impact of the Authority specifying a maximum 1% grade for HSR tracks will likely have profound impacts on both cost and design. According to HSR consultants, the only reason a 1% maximum grade was specified was to accommodate standard freight operations. This is based on the assumption of the continuation of freight without any change to operations. California HSR trains will support up to a 3.5% grade minus the freight constraint. Many freight lines around the country have also shown that freight lines can operate with grades of over 2%,[ii] therefore retaining freight service would allowable a maximum grade of over 2%.

The impact of the 1% grade assumption will lead to much longer portal structures for depressed (trench/tunnel) segments, leading to higher community impacts. Additionally, transitions to elevated segments will also be much longer. Unfortunately, it is our understanding from meeting with Authority

consultants that no evaluation was ever made of the budgetary impact of the decision to use the maximum 1% grade constraint. The only evaluation undertaken so far, as part of the alternatives analysis, was whether certain transitions are feasible from a construction perspective. A thorough analysis should be undertaken immediately to determine the cost differential and level of community impacts based on several maximum grade assumptions ranging from 1% to 3.5%.

In addition to cost considerations, re-examining grade limits is important because various cities along the corridor are currently using the 1% constraint in their modeling of the appearance and impacts of the HSR project and potential stations, greatly affecting their perception of what the impacts of the HSR will be. It is critical to complete the evaluation and include it in the discussion of the forthcoming Supplemental Alternative Analysis Report, so that cities may evaluate additional design options for tracks and station opened up by greater leeway in grade maximums.

Assumption #4 – Total Separation of Caltrain Tracks from HSR Tracks

Our discussions with the planners from both Caltrain and the Authority show that over eight years after agreeing to share the corridor and five years after endorsing a shared-track arrangement, the agencies are now pursuing separate uncoordinated initiatives that are actively precluding the design of the most customer- and operator-friendly system. The Authority is still seriously considering a complete segregation of HSR and Caltrain tracks. This approach conflicts with years of previous planning. It is also our understanding that these conflicts with Caltrain staff, which have indicated a strong desire for a shared-track configuration of the corridor. Finally, while designing separate (side-by-side) systems is conceptually simpler, it would hurt the capacity and reliability of the HSR system by creating a 50 mile stretch with no passing tracks and two-track Caltrain stations. On the other hand, by changing the Service Plan Assumptions and General Principles[iii] to assume joint scheduling and operations with Caltrain on the San Francisco-to-San Jose section, both customer service and reliability can be improved by providing a 50-mile four-track corridor where both scheduled and unscheduled HSR overtakes are possible.

Assumption #5 – Vertical Configuration of Caltrain/Freight Tracks

The Authority has decided that for any below grade design, all Caltrain tracks (which will used by freight at night) shall be it uncovered trenches. This decision creates several large impacts on possible track configurations. The reason for such a design constraint is apparently to avoid the cost of designing tunnels with ventilation to support diesel freight locomotives. Yet, when inquired about this, the Authority informed us that no cost estimates were ever undertaken as to what it would cost to either:

a) Build tunnels to accommodate diesel freight locomotives,
b) Ban diesel locomotives and provide the freight operator which electric or hybrid locomotives for Santa Clara to San Francisco service, or
c) Mandate that all tracks that accommodate night freight service are trenched rather than tunneled.

A critical design decision for the project is being made without the most cursory investigation of the cost impact of the decision.

<u>Recommended Design Principles for Peninsula Corridor Planning</u>

Four-Track Corridor

Our organization supports the concept of providing four tracks for the entire length of the corridor of the San Francisco-to-San Jose Section. We understand that there will be less than four tracks in the approach to the Transbay Transit Center. We are also open to exploring design options that would have less than four tracks in highly constrained segments if cost can be dramatically reduced and service capacity, speed, and safety are not compromised. For example, we would support further examination of alternatives that include two or three tracks within potions of the San Francisco rather than drilling a multi-billion dollar tunnel under Potrero Hill.

Shared-Use Tracks
Our organization supports continuing evaluation of the alternatives that allow for track sharing between Caltrain and HSR. Figures 4-1 and 4-2 on page 4-2 of the AA Report should be carried forward. We opposing carrying forward alternatives that segregated tracks, as illustrated in Figures 4-3 and 4-4 (page 4-3). More specifically we are leaning towards a solution where HSR/Caltrain Express tracks would be in the center, while Caltrain Local tracks would be on the outside. The rationale is to buffer adjacent communities from trains traveling at higher speeds as well as to allow for the easy re-use of existing four-track segments at Bayshore and Lawrence Caltrain Stations.

We understand there will be specific conditions that will require some segregation of tracks for certain segments of the corridor. However a good portion of the corridor should be designed in a way that allows for frequent sharing of tracks so the system achieves maximum flexibility. We envision a corridor where Caltrain express trains would be able to utilize HSR tracks in many locations. We also envision an arrangement where all trains could access all tracks in case of emergencies. For example, if there is problem with a train on Caltrain local tracks, other local trains should be able to temporarily utilize HSR/Caltrain express tracks to move around the problem area. This would also go for HSR trains being able to utilize local tracks temporarily. Furthermore, crossover tracks should be places frequently so as to allow such movement when necessary.

Shared Platforms at HSR Stations
Our organization supports a design that allows for cross platform transfers between Caltrain and HSR trains (in both directions) at all Peninsula HSR stations. To accomplish this, HSR stations should contain two shared platforms. One platform should be located between southbound Caltrain Local tracks and southbound HSR/Caltrain Express tracks. The other should be located between northbound Caltrain Local tracks and northbound HSR/Caltrain Express tracks. This arrangement will also allow for scheduled or unscheduled overtakes of one HSR train by another HSR train by allowing a HSR to enter the Caltrain local track and stop at the shared platform. It will also allow Caltrain and HSR trains to meet at the same platform at the same time. This will allow outbound passengers to use the Caltrain train to access the HSR train and inbound HSR passengers to use the same Caltrain to continue to a local Caltrain station using that same Caltrain trains. Such a transfer would reduce door-to-door travel times for connecting passengers by 5 to 10 minutes, improving the attractiveness, and hence revenue, of both services while simultaneously reducing traffic and parking impacts at the HSR stations.

If it is necessary to have a paid area for HSR (while Caltrain remains a proof-of-payment system), fare gates and ticket vending machines should be placed right on the shared platforms (as well as some nicely designed fencing in the middle of the platform to preserve the paid area). However, we discourage implementing different payment systems for Caltrain and HSR and believe with enough forethought, this can be resolved without having to design separate platforms as is currently being contemplated by the Authority.

Unfortunately, the Authority is currently designing to preclude the possibility of cross platform transfers solely due to the assumption of different payment systems. It appears that the Authority has taken the position that a proof of payment ticketing system for Caltrain and fare gates for HSR is a hard unchangeable constraint. This would not only add at least four minutes to any transfer, but also makes it impossible for super-efficient timed transfers between Caltrain and HSR trains, such as done in the BART system at their MacArthur Station. Rather than working with Caltrain to create planning scenarios on how to harmonize both system to either POP or fare gates, design work is on-going to build a system that would takes ten or hundreds of millions of dollar to change in the future if the systems respective operators decided they

wanted to allow cross-platform transfers. We strongly urge the Authority ask why such an important capability is being intentionally designed away for a problem that proper management can deal with.

To help the public understand the convenience of shared platforms that allow for cross platform transfers, we request that a cross section of an HSR station with shared platforms be included in the forthcoming Supplement Alternative Analysis document.

Additionally, no rolling stock specifications should be finalized before a common platform height is agreed to between the Caltrain and the Authority. This especially goes for Caltrain as they are currently contemplating the ordering of new rolling stock. In the Northeast corridor, Amtrak semi-HSR Acela service, Amtrak regional service, and a variety of commuter services, including NJ Transit's double deck trains, all use the same 48" platform height. If a common platform height shared between semi-HSR and commuter trains is possible on the East Coast and in a number of countries with true HSR service, then no technical limitations are preventing the adoption of a common platform height (such as 48") for the California HSR service and Caltrain. The relatively minor bureaucratic hurdle of bringing the staff and boards to a common agreement is well worth the rider, business, and environmental benefits created by such a common standard.

Specific Recommendations

Consider Re-Use of Portion of Millbrae BART Station Currently Not Used

It is our understanding that the Authority is considering a very expense subway station at Millbrae. Given that there is a great deal of unused capacity at the existing BART station, the idea of re-configuring a portion of the Millbrae Caltrain/BART station should be considered. A possible reconfiguration of the transit hub would have BART continue to utilize the easternmost platform and the two tracks that flank that platform. Then Caltrain Local trains would take over the ROW where the westernmost BART track currently exist (modifications to the portal would need to be made to allow Caltrain to proceed north on the surface). Northbound HSR/Caltrain Express trains would utilize the existing northbound Caltrain track. Southbound HSR/Caltrain Express trains would then take over the existing southbound Caltrain track. One additional track would need to be constructed just west of the existing westernmost platform for southbound Caltrain Local trains. Other design options should be considered as well.

Design Caltrain express stations to allow potential HSR service

In order to realize the maximum possible flexibility of a shared track system, the design of Caltrain stations should allow HSR trains to potentially serve them. Every Caltrain station that is planned to have express service should have a minimum platform length of at lest 200 meters/650 feet. This would allow shorter one-set HSR trains, such as those serving Merced and/or Sacramento to potentially pull into the local track and stop at the station if future market demand warrants. If the island platforms are build at stations a HSR could stop using either the local or the express track.

Mid-Peninsula Caltrain stations (including the one planned HSR station) should be designed with 400 meter/1300 foot island platforms at each station. This would allow future HSR at any of these stations. This theoretically could allow HSR trains to serve non-HSR stations in the future, if demand warrants. For example, if Redwood City is chosen for and HSR station, HSR trains could still potentially serve the Palo Alto station and Stanford riders.

The island platforms would allow four stopping scenarios:

a) Cross-platforms transfers between Caltrain local and express services
b) HSR service stops, with added ability to transfer cross-platform to Caltrain trains
c) HSR overtakes where one HSR stops (at either track) and is overtaken by another HSR train on the other track

d) Cross-platforms transfers between two HSR trains serving different destinations or stopping patterns

By constructing all three stations with platforms capable of accommodating future HSR service, future stopping patterns could be adjusted based on the evolution of demand growth over the coming decades. Further the potential for more than one mid-Peninsula stop can reduce the station area impacts of HSR service at the one official mid-peninsula station.

Conclusion

The San Francisco - San Jose section is one of the most complex and challenging in the entire HSR system. The shared rail corridor with Caltrain and freight creates a far more complex planning environment. The potential for joint planning and operations should be fully exploited. Unfortunately much of the planning to-date has not fully realized and developed the potential of joint corridor and overstated community impacts because of the limitations imposed by unexamined assumptions. It is essential for the Authority and Caltrain revisit these assumptions and undertake the analysis called for in this letter to ensure future rail services (intercity and local) are being planned for and delivered at the best possible cost to the taxpayer.

Thank you for your consideration,

Brian Stanke
Executive Director
Californians For High Speed Rail

Daniel Krause
Vice-Chair of the Board of Directors
Californians For High Speed Rail

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i CA HSR Authority, "Engineering Criteria" Jan. 2004 pg. 6
ii http://www.alkrug.vcn.com/rrfacts/grades.htm
iii CA HSR Authority, Appendix K Train Operations, 2010, page 4 "Assumptions and General Principles"

ATTACHMENT

LETTER SUMBMITTED BY CALIFORNIANS FOR HIGH SPEED RAIL TO CALTRAIN STAFF REGARDING THE COMPATIBILITY OF THEIR ELECTRFICIATION PROJECT WITH HIGH-SPEED RAIL

June 2, 2010

Peninsula Corridor Joint Powers Board (Caltrain)
Mr. Michael Scanlon, Executive Director
Mr. Robert Doty, Director of Rail Transportation
Mr. Mark Simon, Executive Officer for Public Affairs
Mr. Seamus Murphy, Government Affairs Manager
1250 San Carlos Ave.
P.O. Box 3006
San Carlos, CA 94070-1306

RE: Compatibility of the Electrification Project with the California High Speed Rail Project

Californians For High Speed Rail (CA4HSR) is a grassroots, statewide coalition of high speed rail supporters advocating for the high-speed rail project approved by California voters in November 2008. Founded in 2005 and re-launched in 2009, we exist to educate, inform, and organize Californians about ways they can help make high speed rail a reality in this state. Additionally, CA4HSR also encourages sustainable development of the high speed rail (HSR) system, promoting the building of HSR stations in city centers and surrounding transit-oriented development, as well as advocating for the improvement of feeder transit systems.

We would first like to thank you for meeting with our organization on May 20th and discussing the compatibility of Peninsula Corridor Joint Powers Board's (PCJPB) electrification project with the planned high-speed rail project. The meeting was very helpful and informative.

To begin, we would like to express our organization's support for an improved Caltrain and the concept of electrification. We support a fully interoperable corridor that enables Caltrain to access HSR tracks and platforms to allow for efficient Caltrain express service, allow for convenient cross-platform transfers between local Caltrain service and HSR/Caltrain express services, and general flexibility in the operations of passenger rail services along the corridor. We believe this approach is extremely important to the success of HSR, the future of Caltrain, and improved passenger rail service in the Bay Area. Furthermore, we see no problem with funding Caltrain electrification with federal HSR stimulus funds as long as the infrastructure and design of the project is fully compatible with HSR, thereby completing most if not all of the electrical work the Authority would need to undertake (minus any grade separated tracks that are separated from the Caltrain tracks).

As we discussed with Mr. Simon and Mr. Murphy, this letter serves as a follow up to our meeting to get clarification of some of the specifics aspects of the electrification project, as outlined in the Caltrain Electrification Program Environmental Assessment/Final Environmental Impact Report (Electrification EIR). We have included some recommendations in this letter as to how this project should proceed, in

order to provide for an efficient project that meets the needs of Caltrain and HSR, based on what we have learned so far.

Location of Traction Power Facilities

Of primary concern to CA4HSR is the location of the proposed traction power facilities. Based on Figures 2.3-6 through 2.3-15 in the Electrification EIR, it appears that eight out of the 10 proposed traction power facilities are located within close proximity to the two existing tracks. We are concerned that the locations of these eight facilities may negatively impact the ability of the Authority to plan for an expansion of the railway corridor to four tracks. Of these eight, six appear to be definitely located in a way that would prevent at-grade or aerial expansion of the tracks, while two have the potential to impede expansion depending on the final design for HSR tracks. These eight facilities of concerned are listed below.

The six parallel stations are as follows:

1) Paralleling Station PS2 (Mile Post 4.95, located in San Francisco just north of the Bayshore Caltrain Station).
2) Paralleling Station PS3 (Mile Post 15.02, located in Burlingame just north of Broadway Street).
3) Paralleling Station PS4 (Mile Post 20.05, located in San Mateo just west of the racetrack site). Note, the location of this station is close to the existing tracks, but may be far enough away to avoid future track expansion.
4) Paralleling Station PS5 (Mile Post 33.55, located in Mountain View immediately west of the intersection of Greenmeadow Way/Alma Street intersection).
5) Paralleling Station PS6 (Mile Post 38.85, located in Sunnyvale immediately west of the North Murphy Avenue/West Hendy Avenue intersection).
6) Paralleling Station PS7 (Mile Post 51.02, located in southern San Jose).

The one switching station location is as follows:

1) Switching Station SWS1 (Mile Post 26.62, located in Redwood City just north of the Dumbarton junction). Note, the location of this station is close to the existing tracks, but may be far enough away to avoid future track expansion.

The one substation location is as follows:

1) Substation TPS2 – Alternate #1 (Located in Santa Clara immediately south of I-880). Note, the preferred location and alternate location #2 appear to be of sufficient distance to avoid future track expansion, and if either one of these location are chosen, we would no longer be concerned regarding the TPS2 facility.

Given the fact that both Caltrain and the Authority have been planning a four-track corridor for years, we are perplexed as to why so many of the power traction facilities are located in a way that appears to assume a two-track configuration. We are very concerned about the cost and community impacts of having to move traction power facilities to new locations when HSR construction begins. Given that the electrification project proposes to use HSR stimulus funding, CA4HSR would prefer that traction power facilities are located in a way that will not require relocation when HSR project is constructed.

CA4HSR does understand there is some flexibility in the final location of the parallel and switching stations. According to the Electrification EIR (page 2-16),

> Sites have also been evaluated for the intermediate paralleling and switching station facilities, but the design incorporates some flexibility with regard to their positioning. These facilities do not

> require connection to the utility high-voltage system, or such large tracts, so final site selection will be coordinated with local authorities during final design of the electrification systems.

We encourage the PCJPB to coordinate the location of these facilities (preferably outside of the ROW unless sufficient space is available for track expansion) not only with local authorities, but with the Authority.

Please clarify the thinking behind the location of these traction power facilities. What strategies will be undertaken to ensure that these facilities will not interfere with the final design and location of tracks and other infrastructure related to the HSR system and that these facilities will not need to be relocated at great expense and disruption.

Electrical Capacity

The second issue related to traction power facilities (and the overhead contact system (OCS)) is their electrical capacity. We are encouraged by the following statement in the Electrification EIR. On pages S-5 thru S-6, the following is stated:

> This power supply and distribution system and voltage are compatible with the requirements of *HSR* and will accommodate future development of *HSR* in the Caltrain corridor. Furthermore, the OCS conductors and traction power equipment were sized and located based on a computerized analysis of traction power load flow requirements using the probable maximum capacity of the Peninsula Corridor alignment (including a mixture of Caltrain and HSR).

The Electrification EIR also states on page 2-42:

> The OCS configuration and auto-transformer power supply arrangement envisioned for the Caltrain commuter rail system could support rail operations at speeds greater than 90 mph, if this were to be required for *HSR* operations in this corridor."

Please clarify how the "probable maximum capacity of the Peninsula Corridor alignment" is defined.

Please clarify what upgrades, if any, would be necessary to the traction power facilities and the OCS to allow HSR to operate at speeds of 125 mph and allow for the maximum number trains necessary to serve both Caltrain and HSR based on current projections. If expansion of these facilities is necessary for HSR, would traction power facilities be able to expand capacity within the footprint of where they are constructed, or would the HSR Authority need to add new facilities? Furthermore, would the OCS system need to be retrofitted in anyway to accommodate higher loads?

Location and Types of the Overhead Contact System

We are very concerned that installing the OCS prior to construction of HSR in the corridor will create the necessity for relocating a significant portion of the poles and overhead wiring associated with the OCS system. If the OCS is installed prior to HSR construction, it is likely that much the OCS will need to be relocated twice. First, since much of the Caltrain tracks will be relocated during the HSR construction, the OCS will need to be relocated from the original location associated with the electrification project to these temporary locations. Second, after the construction of the four-track corridor is completed, then the OCS will need to be once again relocated to its final location. Furthermore, we are concerned about the pole types (i.e. side pole, center pole, two-track cantilever) associated with the OCS and if they will be re-usable in the new four-track configuration.

We would like to get clarification on Caltrain's view of which specific segments of the corridor

will require the relocation of the OCS system when HSR construction commences, and how much that would likely cost.

Additionally, we would like clarification if the Caltrain is planning to closely coordinate the specification of pole types so that all of them will be re-usable when the tracks are expanded along the corridor.

For sections of the corridor already constructed with four tracks (Bayshore, Hillsdale, and Lawrence), we see no issue with installing the OCS system prior to HSR construction as long as the Authority can confirm that it is compatible with their plans.

Signaling Systems

We understand Caltrain's view that the Communications Based Overlay Signal System (CBOSS), currently under development to implement positive train control (PTC) along the corridor, will serve as bridge signal system while HSR is under construction and possibly continue to operate side-by-side another PTC signaling system associated with HSR. However, we would like more information about why Caltrain believes a separate signal system from the one the Authority is planning to implement is necessary. We are concerned about the safety risks associated with Caltrain's very ambitious timeline for developing CBOSS, a brand new system never before used. Furthermore, we are concerned about devoting $231 million in scarce HSR funds for CBOSS, especially if there is a possibility of using a common PTC signaling system with the HSR system.

As documented in the Program Management Team Overview (Attachment 3, PMT Engineering Management Schedule), which was presented to Board Operations Sub-Committee Meeting on March 3, 2010, the Authority is moving ahead with the design of the statewide HSR system using ETCS/ERTMS as the assumed/selected train control/signaling system. This document can be found at http://www.cahighspeedrail.ca.gov/images/chsr/20100226152847_19-BoardOperationsSub-CommitteeMeeting03032010FINAL.pdf. With the global reach and proven track record of ETCS/ERTMS, used successfully in Italy for HSR for over five years and the worldwide standard for all new HSR systems except those in Japan and Taiwan, this is a reasonable decision.

Californians For High Speed Rail is concerned by the large scheduling and safety risks inherent in the development of new life-critical signaling systems and their potential to impact the start of the HSR infrastructure on the peninsula. The ability of CBOSS to act as a "bridge" allowing improved Caltrain operations during the construction of HSR requires that CBOSS be installed and in operation before HSR infrastructure construction begins. The Authority currently anticipates that their Final EIS/EIR NOD with be released by Oct. 2011. Construction work could begin within less than a year of that date. This would potentially mean that CBOSS would need to be fully developed, prototyped, tested, installed and put into revenue operation within less than three years. For comparison, the much simpler 2nd ATCS Channel project recently completed by Caltrain, took four years to complete. The ARRA investment strategy adopted by the MTC in June 2009 envisioned that construction of PTC will take place from December 2011 to June 2013. Not only would this schedule mean that CBOSS would not be fully installed until a year into HSR began, but also leaves less than a year and a half for the new CBOSS system to be developed, prototyped, tested, accepted, and receive all regulatory approvals before construction has to commence. This is far shorter than the nine year period from when ETCS specification was written in 1996 until the first HSR line went into operation in 2005, after six years of testing. Please provide us with the planned timeline and milestones for how Caltrain plans to achieve such a timeline.

Californians For High Speed Rail is concerned that adopting a novel, yet-to-be fully developed signaling technology exposes Caltrain and HSR systems to short-term and mid-term schedule and cost escalation risks and long-term unnecessary costs. It would seem that adoption of a mature and fully debugged system such as ETCS/ERTMS would greatly simplify project complexity and improve the ability to meet the milestones for both Caltrain's electrification project and the HSR project. Further, such a strategy would seem to save money over the next decade as the same system would be used over the entire CA HSR network, eliminating the need to install multiple signaling systems on the peninsula or on the actual train sets.

We would like clarification on what analysis has been conducted by Caltrain and the Peninsula Rail Partnership to quantify the costs and feasibility of pursuing CBOSS. We would also like know if Caltrain and/or the Peninsula Rail Partnership have evaluated the costs, benefits, and feasibility of implementing ETCS/ERTMS for the Caltrain electrification project so that ETCS/ERTMS can act as a both "bridge" signaling system during construction HSR and as the final signaling system for joint Caltrain/HSR operations? Please provide us with a copy of any such analysis if it has been undertaken or an explanation why Caltrain is proceeding without first undertaking such.

Rolling Stock and Platform Heights

As in Los Angeles, many people in the Bay Area would like to see an interoperable system where Caltrain and HSR trains can utilize each others tracks to allow for flexible and efficient operation of all passenger rail services along the corridor. We are encouraged that Caltrain is supportive of track-sharing as a way to achieve interoperability. However, to truly design an efficient corridor, trains not only need to share tracks, but they also should have the ability share platforms to allow for cross platform transfers between local Caltrain trains and HSR/Caltrain Express trains. To accomplish this, we believe platforms must be the same height. Correspondingly, the rolling stock of both HSR and Caltrain would need to be designed to serve the same platforms. Unfortunately, it is our understanding that this is not currently being contemplated by either Caltrain or the Authority.

Please clarify Caltrain's current thinking regarding platform heights and the corresponding specifications of the rolling stock.

We strongly encourage Caltrain to work with the Authority and local officials and representatives to take the necessary steps to achieve common platform heights. We also urge Caltrain to hold off on creating specifications for the new rolling stock associated with electrification until the issue of platform heights is resolved. Our organization understands that there is a State of California rule related to freight operations that are driving the decision to have differing platform heights for the Caltrain trains and the HSR trains. However, the rule in question is a state regulation that is an anachronism (related to freight operators hanging off the side of a freight train) that is not relevant to the corridor. We strongly encourage Caltrain work with other agencies, including the Authority, to either get a waiver from this rule or get the rule eliminated if it is no longer needed. Given that there are only six freight trains daily in the vast majority of the corridor, it makes little sense to compromise efficient transfers between local trains and express/HSR trains.

General Compatibility/Request for Implementation Plan and MOU

In addition to the specific elements of the electrification project listed above, it is likely there are numerous other elements of the design of the project that will require close coordination with Authority to avoid reconstruction and avoid wasting limited public funds.

Therefore, we are strongly encouraging that a joint implementation plan be developed by both the PCJPB and the Authority for the electrification project. An implementation plan would preferably include the following:

- Detailed construction schedule for individual elements and segments of the corridor.
- Detailed discussion of strategies to avoid having to perform any demolition and reconstruction when HSR is constructed.
- Discussion of possible addendums to the Electrification EIR related to design and phasing of construction, that would allow the document to be highly compatible with the Authority's project-level environmental and engineering work. The Transbay Joint Power Authority, another agency that has a shovel-ready project that also lays the foundation for HSR, has approach their environmental engineering work in this way. Their experience may serve as a model for how to proceed forward with electrification project.

To solidify such an implementation plan, we would also like to see a new Memorandum of Understanding (MOU) between the PCJPB and the Authority that would clearly layout how the two agencies will work together to ensure that incompatibilities are eliminated and public funds will not be wasted unnecessarily. Furthermore, a MOU should be binding.

Given the rapid progression of this project, we would greatly appreciate a response to this letter by the end of next week. Thank you for your consideration of our concerns regarding this critical project.

Brian Stanke
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Californians For High Speed Rail

Robert Cruickshank
Chair
Californians For High Speed Rail

cc:
Speaker Nancy Pelosi
Congressmember Jackie Speier
Congressmember Anna Eshoo
Congressmember Zoe Lofgren
Congressmember Mike Honda
State Senate Transportation Committee
State Senator Mark Leno
State Senator Leland Yee
State Senator Joe Simitian
State Assemblymember Ira Ruskin

State Assembymember Fiona Ma
State Assemblymember Tom Ammiano
State Assemblymember Jerry Hill
State Assemblymember Ira Ruskin
State Assemblymember Paul Fong
Mayor Gavin Newsom, City and County of San Francisco
Chris Daly, City and County of San Francisco Supervisor
Peninsula Corridor Joint Powers Board
California High Speed Rail Authority Board
Roelof van Ark, Executive Director of the California High Speed Rail Authority
Dominic Spaethling, Regional Manager, San Francisco to San Jose section of CA HSR
Joseph Szabo, Administrator, Federal Railroad Administration