This memorandum responds to budget bill language in Assembly Bill 92 and Senate Bill 68 for the Department of Finance (DOF), California High-Speed Rail Authority (CHSRA) and the Department of Transportation (Caltrans) to jointly report on whether there are opportunities to use existing state resources and staff, rather than contracting out, to advance the high-speed rail system development. The response shall be submitted to the Assembly Committee on Budget and the Senate Committee on Budget and Fiscal Review by May 1, 2011. This memorandum is not intended to be a proposal.

Background to the California High-Speed Rail Project

Existing law establishes that the CHSRA is responsible for the development and implementation of an 800-mile high-speed train system that will operate up to 220 mph, connecting the state’s urban centers, including the Bay Area, Fresno, Bakersfield, Los Angeles and San Diego. The first phase extends from San Francisco to Los Angeles and on to Anaheim, a distance of 525 miles. This system will be the first high-speed rail system in the United States.

Through a combination of federal funding grants and proposed state Proposition lA bond funds, $5.5 billion is potentially available to develop and complete construction through the laying of high-speed rail track work for an initial segment in the Central Valley. The location and construction of the initial segment, from north of Fresno to the northern end of Bakersfield, is based on conditions for receiving federal funds, and final alignment is subject to completion of the California Environmental Quality Act (CEQA)/ National Environmental Policy Act (NEPA) environmental process. This initial segment will be the beginning of the project backbone that connects northern and southern California.

In November 2009, CHSRA and Caltrans executed a Master Agreement to work cooperatively where the High-Speed Train System interacts with the State Highway System. Under the agreement, Caltrans has been reviewing high-speed train interfaces with Caltrans right of way to assure compliance with Caltrans standards, policy and procedures, including Intergovernmental Review and reviews related to CEQA and NEPA. The CHSRA and Caltrans are currently working together to approve a second Master Agreement to provide review of high-speed train system interfaces through final design and construction. Both agreements provide the opportunity for CHSRA to directly contract with Caltrans for professional services related to the development of the high-speed train.

CHSRA Professional Staffing Needs

The work is very cyclical or one-time, and requires very specific skills which are not readily available within state service. Large numbers of experts are required for limited durations to
meet the requirements of the environmental, planning, right of way, and high-speed rail-specific engineering activities.

The project is presently in the preconstruction phase of environmental clearance, planning, and preliminary engineering. CHSRA has contracted these activities to private expert regional consultants, who are being coordinated by the Project Management Team - Parsons Brinckerhoff. Contracts with the Project Management Team and the regional consultants have been executed and the work is being conducted in an expedited manner to meet the federal deadlines associated with the American Recovery and Reinvestment Act of 2009 (ARRA). In addition to work on the Central Valley segment, the CHSRA has entered into contracts to plan and design all of the remaining Phase I segments to a level of 30 percent design. Once 30 percent design is complete and funding is made available, the CHSRA will contract with private entities through a design-build process to complete design and construction.

In order to minimize risk to the state and construct the Central Valley segment in the most efficient manner, final design and construction will be performed by design-build contractors selected on the basis of best value offered (Public Utilities Code §185036). The design-build method, in which a single entity is responsible to the state for all work, includes all design, construction, and engineering-related activities. This method significantly reduces risk to the state compared to traditional design-bid-build contracting where inherent conflicts exist between designer and contractor, both of which look to the state for remedy. The design-build process also enables an earlier construction start and faster project delivery, with the potential for reduced cost and earlier utility benefits. This is of utmost importance to meet the deadlines of the ARRA funding, which, if the project is not completed by September 2017, will be lost under current federal requirements.

**CHSRA Specific Project Activities and Staffing Needs**

Ultimate responsibility for successful implementation of high-speed rail rests with the CHSRA, so the public’s confidence requires a higher degree of involvement by senior, well qualified and experienced CHSRA officials in all crucial project activities. Important stakeholders demand direct access to CHSRA management for information, negotiations, and commitments. To achieve this, key individuals within the CHSRA need to have skills and experience to oversee, manage and guide the project. These levels need to be at least equivalent to those of the consultants they manage, in the various functions of the project, such as engineering, program management, environmental, planning, financial, communications and outreach.

The CHSRA currently has 39 positions overseeing the project. The number of CHSRA staff may be insufficient to meet the demands of this program, but it also is illogical to build up engineering/technical resources due to the cyclical nature of the demand because it will take at least a year to train new staff, which will then need to be laid off once this phase has been
completed. Project workload is accelerating rapidly to begin construction work in the Central Valley in 2012-2013.

One area where Caltrans has the expertise to provide support to CHSRA relates to the acquisition of over 1100 right of way parcels in the Central Valley that will enable the initial construction to begin. This represents a very large right-of-way workload in 2011-12 and 2012-13. Such services must come from either state resources or be contracted. Presently it has been envisioned that CHSRA’s right of way staff will manage right of way consultants, again due to the cyclical nature of the demand for these resources. Although the demand would be extremely high in the first two years of this initial construction, subsequent requirements will be determined by the availability of non-state construction funding as well as the state’s ability to sell bonds. In addition, a large number of right of way-related resources are required, primarily at levels that produce products and provide such services as surveying, producing appraisal maps, property appraisals, appraisal reviews, environmental site assessments, conducting negotiations, relocation assistance to property owners, and eminent domain legal services where necessary. These resources are presently planned as being contracted from the private sector and are critical to the timely and efficient development of the Central Valley segment.

The overall demand for staff in 2011-2012 for which Caltrans has the necessary expertise is summarized below.

<table>
<thead>
<tr>
<th>PY's expected to be outsourced by CHSRA</th>
<th>Qty</th>
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</thead>
<tbody>
<tr>
<td>ROW Agent Activities (appraisers, appraisal reviewers, negotiators, relocation agents, utility relocation specialists, and specialists for other related ROW activities)</td>
<td>50</td>
</tr>
<tr>
<td>ROW Engineering (surveyors, appraisal map preparers, legal description preparers)</td>
<td>40</td>
</tr>
<tr>
<td>ROW Environmental (site environmental assessors)</td>
<td>10</td>
</tr>
<tr>
<td>ROW Legal Services (eminent domain attorneys)</td>
<td>5-7</td>
</tr>
<tr>
<td>TOTAL</td>
<td>105 to 107</td>
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Related Caltrans Activities, Staff and Expertise

The CHSRA has identified an opportunity for Caltrans to provide support in activities related to the acquisition of 1100 right of way parcels in the Central Valley. Right of way agents are needed to perform appraisals, acquisitions, relocation assistance and eminent domain, surveyors and engineers are needed to prepare appraisal maps and perform site surveys, environmental planners are needed to perform environmental site assessments related to right of way activities and attorneys are needed for eminent domain legal services.
Caltrans uses staff in these state classifications with similar knowledge and abilities to acquire right of way, survey sites, prepare appraisal maps, and perform environmental site assessments for highway projects statewide. Caltrans also uses engineers for design and construction activities to build highways, structures and highway-related facilities statewide.

The interfaces between the high-speed train system and the state highway system will require modifications to state highway and highway structures. Caltrans has expertise in the realignment, widening and reconstruction of the highway system and has successfully completed thousands of highway projects since the creation of the department in 1897. Caltrans has limited experience in the development of heavy rail or light rail systems.

**Caltrans Does Not Have Sufficient Staff to Meet CHSRA Needs**

Workload projections for 2011-12 do not show significant changes and there are no foreseen reductions in federal or state funding for highway projects although there is some uncertainty with Proposition 1B funding. The Caltrans Capital Outlay Support (COS) Program, which includes right of way, environmental analysis, engineering services, project management, design and construction, is a zero-based program and resources are determined yearly from the projected workload and funding available for the next fiscal year. COS resource levels for 2010-11 were determined using the zero-based method and did not include increases for any right of way work from CHSRA. Since workload and funding are projected to stay relatively flat from this fiscal year to the next fiscal year, proposed COS resource levels will also remain relatively unchanged. Currently there is sufficient COS staff to meet the Caltrans 2010-11 delivery commitments for available highway funding. With the exception of right of way functions, the existing staffing level is also adequate for the proposed resources requested for the 2011-12 Fiscal Year.

CHSRA needs to acquire over 1100 right of way parcels in the Central Valley in the next two years. This workload is equivalent to the average number of acquisitions that Caltrans completes for its projects in one year statewide. Currently the Caltrans right of way function is understaffed, and is experiencing an annual attrition rate of 7 percent which will result in additional reductions over the next 3 years. Caltrans has no statutory authority to contract out right of way activities, so in order to meet the delivery commitments for 2011-12 Caltrans will need to hire at least 30 additional agents. Hiring new agents will ensure timely completion of right of way activities for highway projects, capture available highway funding and offset continuing attrition. Unfortunately, this means that Caltrans does not have capacity in the right of way function to assist CHSRA without severe impacts to Caltrans delivery commitments for 2011-12.

The Caltrans environmental analysis function faces similar challenges for 2011-12. Although workload and resource levels are projected to remain relatively flat from this fiscal year to the next, the environmental analysis function is also understaffed and will continue to see staffing
levels decrease through attrition. Consultants will be contracted to augment environmental staff and assist in the meeting the delivery commitments for 2011-12. Legal services will have sufficient staff to assist in Capital Outlay delivery commitments, but does not anticipate any excess staff to assist CHSRA in 2011-12.

Caltrans construction workload is projected to continue at the current or higher levels in 2011-12 and 2012-13. To date, Caltrans has 686 construction projects underway valued at over $10.6 billion and already requires the movement of staff from design to construction during the high-activity season. Although the furlough program has ended, many engineers were placed on self-directed furlough programs to provide construction inspection and engineering to ensure contract compliance of contractor work. This has resulted in staff banking furlough days, so additional construction staff will be required to complete construction activities. Together, the moving of staff, furlough impacts, use of overtime, and use of consultants will provide just enough staff to deliver the planned 2011-12 commitments and maintain the highway construction program.

The CHSRA indicates the need for a few experienced managers to oversee the work of consultants, particularly for right of way activities. While Caltrans has this expertise, it would be more appropriate for the CHSRA to advertise such positions statewide and consider willing candidates from within state service rather than for Caltrans to loan specific individuals to the CHSRA. Key managers should be hired by, and report directly to, the CHSRA.

Impacts of Redirecting Staff to Meet CHSRA Needs

Presently, Caltrans would be required to redirect existing staff to meet the anticipated CHSRA needs. Since the right of way function is understaffed and environmental analysis, design, construction and legal services have no capacity to assist CHSRA, the additional workload would result in delays to highway projects. For example, the I-5 South Project in Los Angeles County is a $1.2 billion widening project requiring over $500 million in right of way acquisitions. Some staff working on this project would have to be redirected to help complete CHSRA work and the project would be delayed. Ultimately this would delay the creation of 21,600 jobs in private construction and related industries. Staff redirected from other projects to help complete CHSRA work would lead to similar delays. This impact on delivery could jeopardize the state’s ability to use all available Federal Highway Administration funding for transportation projects and impact the use of measure funding from local agency partners. As mentioned previously, Caltrans is unable to contract out right of way activities so any movement of staff to CHSRA could not be replaced through the use of Caltrans consultant resources.

Impacts of Bringing on Additional Resources to Meet CHSRA Needs

If Caltrans was asked to hire new staff to meet the requested CHSRA needs, Caltrans would need to address issues related to bringing on new staff quickly to meet the additional workload. The majority of CHSRA immediate needs are within the right of way function and Caltrans already plans to hire up to 30 staff to ensure delivery of existing Caltrans projects. The CHSRA request
would increase the number of hires needed from a limited pool of qualified professionals. It would take at least a year to hire and train new staff to become proficient, equal to half of the duration anticipated by CHSRA to acquire right of way. Experienced staff would be impacted by providing on-the-job and formal training in addition to their assigned projects.

New employees would be permanent, full-time employees even though the additional workload is expected to be a one-time occurrence. Caltrans would also be required to provide them workspace within existing state facilities. If the Caltrans right of way workload does not significantly increase after the peak CHSRA workload is complete, then Caltrans would be faced with potentially reducing this additional staff by laying them off.

If hiring into limited term positions is used to address the CHSRA needs, it is unlikely that the response from qualified candidates will meet the need as private right of way firms offer better salaries for the same term of employment. As a result, Caltrans may not be able to fill all the necessary right of way positions needed and the ability to complete CHSRA work would be at risk.

Opportunities in the Future

CHSRA has executed engineering consultant contracts for all segments through 30 percent design. Since the work is under contract with consultants, there is limited, if any, opportunity for Caltrans engineers to assist in the direct design or design support activities without impacting the executed contracts. Design and design support activities after 30 percent design through final design are anticipated to be contracted to design-build entities to meet federal funding deadlines. These entities would include engineering firms ready to complete the design as part of the design build contract. Without additional legislation, Caltrans would use the design-bid-build method to complete design, award and construction of any portion of the high-speed train system. However the design-bid-build method would probably not provide the early construction start and faster project delivery required by the CHSRA.

As the high-speed rail system and construction funding develop further, CHSRA staffing requirements will be planned in detail to meet those requirements. Caltrans will also be able to assess its ability to provide construction inspection assistance to the CHSRA at that time. CHSRA and Caltrans will then jointly work together to look for opportunities, especially in engineering, where Caltrans resources may be applied to the benefit of high-speed rail development.