



USC Keston Institute for Public Finance and Infrastructure Policy

Financial Planning Charrette 710/210 Tunnel Connection

December 5, 2007
The University Club
University of Southern California

Meeting Summary

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The Keston Institute for Public Finance and Infrastructure Policy

The Keston Institute for Public Finance and Infrastructure Policy was established at USC in 2002 to address the economic, financial, demographic, and other policy issues affecting public infrastructure in California. Housed within the School of Policy, Planning and Development (SPPD), the Keston Institute seeks to transfer knowledge from the University's interdisciplinary educational resources to decision-makers in the public and private sectors. Within the context of public and private finance, the Keston Institute focuses on transportation, water, power, and related municipal public works. Central to the Keston Institute's purpose is the identification, research, and dissemination of the most imaginative financing strategies for the range of infrastructure challenges that California will face in the 21st century.

The mission of the USC Keston Institute for Public Finance and Infrastructure Policy is to identify, evaluate, and facilitate the deployment of improved models and methods for financing and delivering critical infrastructure. In support of its mission, the Keston Institute sponsors research, conducts studies, and convenes workshops, symposia, and a variety of information dissemination activities. Specifically, the Keston Institute compiles, evaluates, and disseminates data and research pertaining to California infrastructure trends, mechanisms and implications of investment spending, linkages between infrastructure investment and state and local economic activity, and related infrastructure issues. Keston Institute analyses and forums are intended to aid decision-makers in relevant policy formation, regulation, and legislation.

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710/210 Tunnel Connection: Moving Forward with a Critical Connection

BACKGROUND

The future economic and environmental health of the Los Angeles metropolitan area is inextricably linked to efficacy and adequacy of its transportation infrastructure. The efficient movement of goods and people throughout the region is critical to maintaining its vitality and to securing a prosperous and healthy future for its residents. No transportation facility, structure, or mode functions independently—they are all part of integrated systems of complementary, interdependent elements. The complexity of the transportation system of Los Angeles is compounded by the extent and size of the metropolitan region that it serves. In particular, the region hosts large, global port facilities that generate major goods movement challenges--and that directly impact traffic patterns throughout Southern California. Though Los Angeles leaders have spearheaded initiatives to develop multi-modal solutions to mobility issues such as the construction of the Alameda corridor and major recent expansions in regional rapid transit, the highway system remains the mode around which all of the other elements are organized. Historically and for the foreseeable future, ensuring the efficient function of highways and maximizing their capacity is crucial to ensuring mobility in Los Angeles and minimizing problems such as congestion and air pollution and the costs associated with them.

The importance of the 710/210 tunnel connector is recognized by federal, state and regional transportation traffic engineers and planners, and it is a priority project for the California Department of Transportation (Caltrans), the Southern California Association of Governments (SCAG) and the Los Angeles County Metropolitan Transportation Authority (MTA). The tunnel would serve to connect two major interstate freeways, closing a critical 4.5 mile gap in the regional highway system. Interstate 710 or the “Long Beach Freeway” is a major goods-movement corridor and an important north-south route extending from the City of Long Beach area in the South, through Los Angeles, and ending just north of Interstate 10 in Alhambra. The tunnel would continue the route as originally provided for in California Freeway and Expressway System plans dating back to the 1950s. It would descend in Alhambra, continue underground beneath the city of South Pasadena, and emerge in Pasadena to connect to

Interstate 210, where already there is a significant stretch of freeway that merges with that route near the terminus of State Route 134. Both in terms of optimizing the highway and transportation system of greater Los Angeles as a whole, and in terms of getting the maximum benefit from public expenditures and resources without compromising other needed projects, the 710 tunnel project presents a major opportunity.

PURPOSE

The Keston Institute for Public Finance and Infrastructure Policy was established at the University of Southern California in 2002 to leverage USC's intellectual resources to help California and the nation address critical infrastructure issues. The Keston Institute supports the formulation of infrastructure policies and practices that will improve the livability of California communities, ensure the economic well-being of its citizens, and promote environmental sustainability. The goal of the Institute is to raise the awareness of the value of infrastructure so that it can take its place with other vital issues on the public agenda such as jobs, education, and housing. To realize this goal, we can take steps to facilitate communication between state, regional and local leaders, financiers, and planners. We can provide a forum for collaboration and for the development of strategic programs that engage a broad range of stakeholders, including practitioners, policy-makers, and researchers, with the end goal of developing legislative and outreach programs that serve the public interest. The Keston Institute convened this one-day intensive meeting, "Financial Planning Charrette for the 710/210 Tunnel Connection" on December 5, 2007 to discuss the current status of a critical missing link of Southern California transportation infrastructure, to identify the remaining obstacles to its construction, to determine the possibilities for its financing, and to develop a plan of action towards realizing its completion.

The current proposed tunnel plan as it exists today represents major advances in technology and financing from previous plans. In the past, local opposition has halted the construction of proposed surface routes, despite the critical importance of this segment to the region in terms of air quality benefits, congestion relief, and safety. Local opposition to the construction of this segment of freeway delayed the project for approximately four decades, with protests and lawsuits by community groups and property owners in Alhambra, San Marino, Pasadena and La Canada/Flintridge, but the most vocal and aggressive opposition from activists and officials located in the City of South Pasadena.

Tunneling technology has dramatically reduced the costs of construction in recent years, and current proposals to route the tunnel hundreds of feet below the surface ameliorate local concerns about air quality effects, noise, and community disruption. Cutting-edge subterranean technology employing tunnel boring machines (TBM) can be used, rather than more intrusive cut-and-cover techniques that have been standard in the past. In addition, this critical segment of highway would dramatically reduce travel times and distances for one of the most important regional goods-movement corridors, and the value of its added efficiency means that it would generate reliable traffic and toll revenue. This presents a valuable opportunity for financing a critical piece of infrastructure without diverting scarce transportation funds from other vital Southern California projects.

The most recent report on the project provides the context for discussion of appropriate next steps. A major collaborative effort to move the project forward was spearheaded and funded by the MTA. A working group composed of technical staff from Caltrans, SCAG, and the Cities of Alhambra, La Canada Flintridge, Los Angeles, Pasadena, San Marino and South Pasadena advised and provided technical input for the study. The results were published in a report by engineering firm Parsons Brinkerhoff, *Route 710 Tunnel Technical Feasibility Report* which was submitted on June 7, 2006. Since then, the California Department of Transportation has been taking the lead in developing specific engineering plans and negotiating an appropriate arrangement for its completion.

SUMMARY OF DISCUSSIONS

The planning charrette opened with overviews from public officials of the history of the project and the status of engineering plans and cost estimates. It also featured the assessments and estimates of several leading legal firms, contractors, and financiers that have direct experience with similar projects around the world. The afternoon featured a lengthy informal discussion of the pragmatic steps still required to bring this project to fruition, including the role of private sector parties, the projected costs and variations on financial agreements, the relevant political circumstances in California, and the legislative and legal steps that are necessary to getting construction underway.

The meeting opened with introductions, and a statement from California State Assemblyman Mike Eng, representing district 49 including much of the San Gabriel Valley including Alhambra and San Marino. Assemblyman Eng offered his support for legislative action. Tracy Arnold, Director for Jobs and Economic

Growth of the Office of the Governor, expressed support for the project and stressed Governor Schwarzenegger's commitment to leveraging public money through private sector partnerships. Dan Farkas, representing California State Senator Gil Cedillo, confirmed their interest in seeing construction underway, and Senator Cedillo's willingness to sponsor needed legislation. Senator Cedillo represents Senate District 22, including much of Los Angeles as well as South Pasadena, Alhambra, and San Marino.

Robert Huddy of the Southern California Association of Governments began discussion with an overview of the history of the project. Mr. Huddy is a senior transportation manager who has been involved with the 710 connector project as a representative of SCAG for nearly two decades. Mr. Huddy emphasized the on-going local opposition to the project. He described how the environmental review process has been a critical obstacle to progress, as legal challenges create long delays and result in significant cost increases. He expressed optimism that the new proposals for tunneling combined with greater awareness of the regional importance of the project, including for environmental quality and for congestion relief, would continue to alleviate concerns. He noted that the South Pasadena city council, in particular, has moderated their stance on the facility.

The historical overview presented by Mr. Huddy was followed with data on current traffic estimates and cost estimates. Traffic estimates indicate that the tunnel would immediately attract significant traffic between the port area and Los Angeles heading toward major national distribution centers in San Bernardino County. It would alleviate traffic congestion for commuters and trucks on surrounding freeways, in particular Interstate 5, Interstate 10, and Highway 101 and also eliminate the current bottleneck where I-710 currently ends in South Pasadena. The MTA was represented at the meeting by Linda Hui, Transportation Planning Manager of the San Gabriel Valley Area Team, and Caltrans District 7 was represented by senior engineer Abdi Saghafi, route 710 corridor manager, both of whom contributed informal assessments of current prospects and progress.

Michael Liikala, representing ACS-Dragados, followed with a detailed presentation on major engineering aspects of the tunnel project. He emphasized the savings in costs and time that have been made possible by recent advancements in tunneling technology utilizing TBMs. He mentioned several construction projects currently underway in Europe, including subway expansion projects as well as the A-86 tunnel in Paris, France and the M30 motorway in Madrid, Spain. He also discussed the Port of Miami Tunnel at

length, which has some significant similarities with the proposed 710 tunnel. In particular, the Miami tunnel, which extends under some densely populated areas, demonstrates how unobtrusive and efficient new tunneling technology can make such a project. He also emphasized the importance of quick action, stressing the rapid escalation of costs as delays in construction continue.

James Martling of Sperry Capital then discussed his firm's experience with public/private partnerships and emphasized the need for quick action to ensure financial feasibility. He also recommended that government agencies take responsibility for the environmental review process, which is considered too unpredictable for the private sector to take on that risk.

The final presentation of the day was made by Paul J. Ryan and Nick Moller of the Infrastructure Advisory Group of JP Morgan Securities. They presented a detailed spread sheet with financial data and assumptions for the tunnel project. They were able to adjust variables including the potential overall budget of the project (currently estimated at approximately \$6 billion), traffic diversion, toll rates, the amount of government contributions, and the timeframe of concession agreements as well as other significant elements. Overall, it was clear at this stage that currently available data would support a financially feasible project in which the private sector could augment public appropriations with significant capital investments through a public/private partnership (PPP). Such an arrangement would shift considerable risk to the private sector, facilitate more rapid construction, and reduce operational costs in the long-term.

Mark Pisano, executive director of the Southern California Association of Governments, led a general discussion following the presentation. Mr. Pisano emphasized the importance of pragmatic action and the development of a workable legislative strategy. He also emphasized the need to give local community groups and city officials a voice in the decision-making process.

Discussants agreed that the project appeared feasible as a PPP, and that because of its importance to improved air quality and mobility and the economy of the entire region, it should be prioritized and considered as a discrete project apart from more general efforts to authorize public/private partnerships and local toll facilities.

CONCLUSIONS

1. Though further geological studies are needed, improvements in tunneling technologies have made the 710/210 connector feasible and cost-efficient
2. Historically, local opposition to the connector has been a major obstacle to its completion, but the proposal to construct the facility deep underground addresses most of the identified concerns. Integrating local governments and community groups into the decision-making will facilitate progress.
3. Current traffic patterns suggest that there would be ample demand for a fairly significant toll (\$5-10).
4. The environmental review process is a major and expensive element of the project, and will have to be undertaken by a public entity with significant financial and legal resources.
5. Investors should be willing to take on significant risk in exchange for a long-term toll concession, with only limited financial participation by the public sector, but will not take responsibility for environmental permitting or related legal costs
6. Politically, state leaders can be expected to approve the project if it is framed appropriately and its benefits are publicized with their constituents. Public education about the environmental and economic benefits of the project should be part of the effort to get it underway.

NEXT STEPS

While this project is a good candidate for a public private partnership, the specific administrative and political form that it will take is not yet clear. Legislation is needed both to authorize a revenue-supported project and permit private participation in its financing and operation. This is the first step in allowing the project to move forward. Although there is solid financial and engineering data available, the environmental aspects of the project remain to be examined. Funds must be appropriated to support the combined CEQA/NEPA process. In addition, the specific institutional mechanism for administering the project must be decided. For example, will the project be administered by Caltrans, a project-specific JPA, or through some other mechanism?

Overall, the 710/210 tunnel connection should offer environmental and mobility improvements and is an excellent candidate for California to leverage private capital. The estimated construction and operating costs can be supported by a toll structure that is in line with other revenue-supported facilities around the U.S. There is little likelihood that this much-needed project will be constructed solely with public funds.

APPENDIX A

Agenda

Financial Planning Charrette

710/210 Tunnel Connection

Welcome

Self-Introduction of Attendees

Overview and History of the Project

Current Status of Estimates (age and source)

- Traffic (by type and time)

- Cost (construction, O&M, etc.)

Project Revenue Sources

- ROW, federal, state, and local funds

- Toll structure to provide capital shortfall and on-going O&M and reserves

Alternative Financing Structures and Sensitivity Analysis

Existing Legislative Barriers and Needed Enabling Legislation

Preliminary Feasibility Determination

Next Steps

APPENDIX B

Attendees

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APPENDIX C

Fact Sheet, provided by Abdi Saghafi P.E., P.M.P, Corridor Manager - ROUTE 710 California Department of Transportation.

External Factsheet

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Fact Sheet For EA 18790

CONSTRUCT FREEWAY

LA -710-26.7/32.1T

Project Description:

• **Location and Limits:**

IN ALHAMBRA TO PASADENA 0.2 MILE NORTH OF JUNCTION 10 TO DEL MAR BOULEVARD
OVERCROSSING KP=43/51.7

• **Background:**

Route 710 is a major north-south Interstate route used for inter-regional and intraregional commuting and shipping through an urbanized corridor, connecting the Ports of Long Beach and Los Angeles to the western San Gabriel Valley.

- In 1964 the California Highway Commission adopted the "Meridian Route" for the 710 Extension through the Cities of Alhambra, Los Angeles, South Pasadena and Pasadena to close the 6.2-mile gap between Routes 10 and 210, in order to maintain the best possible levels of service.

- In 1986 a third Draft Environmental Impact Statement (DEIS)-Supplement was prepared, to present the Meridian Variation Alternative, which was developed to reduce the project's impacts on historic properties.

- On April 13, 1998, FHWA approved the Record Of Decision (ROD) with additional conditions. The construction cost for ROD selected alternative is \$823 Million.

- City of South Pasadena and its allies have filed several lawsuits against Caltrans, CTC and FHWA ever since the project started in 1973. The latest suit was filed on June 10, 1998 challenging the EIS.

- Caltrans has programmed \$9.7 million through the Interregional Transportation Improvement Program (ITIP) for Interim Traffic Improvement projects throughout the 710 corridor as mandated by FHWA in the Record of Decision (ROD).

- Total estimate for Interim Traffic Improvement projects proposed by the Design Advisory Group (DAG) was \$25.1 million. The cities of South Pasadena, Pasadena and the community of El Sereno have been able to secure an additional \$46 million through Congressman Rogan, to fund additional improvement projects throughout the I-710 Corridor. The cities noted above are working with Caltrans' Office of Local Assistance to implement their respective projects.

- FHWA rescinded the ROD in December 2003.

- Metropolitan Transportation Authority (Metro) commissioned a Feasibility Assessment Study of the Tunnel Option in 2006. The Study concluded that the Tunnel Option is feasible.

- Currently, Caltrans is embarking on a series of "Route Neutral" Technical Studies, in order to determine the best alternative. These studies will last about two years and will further evaluate the Tunnel Option, as well as the other alternatives.

• **What The Work Involves:**

Once the Route Neutral Technical Studies are completed, Caltrans will begin the Environmental studies and the Project Report on the preferred alternative.

• **Benefits:**

- This project will provide a critical connecting link to the regional transportation highway system, allowing the system to operate more efficiently and effectively.

- It will divert through traffic from local arterials, thereby relieving traffic congestion and better serving the existing and future local transportation needs of the area.

- It will provide a critical link in a program wide High Occupancy Vehicle (HOV) lane system by connecting the HOV lanes on 4 major freeways.

- It will provide a crucial element in the regions' air quality management plan by reducing traffic congestion and promoting free flowing traffic.

Schedules:

Construction Phase Began: N/A

Construction Phase Ended: N/A

Total Programmed Project Costs: \$ 3,060.000 Million

Project Contacts:

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Assistant Project Manager: Kin W. Kwan, 7-2793

Area Manager: I710