INTRODUCTION

On February 25, 2009, Caltrans held a community meeting to inform community stakeholders about the State Route 710 (SR-710) Tunnel Technical Study. The meeting took place at the South Pasadena Library Community Room. Approximately 100 community members attended.

SR-710 Study Team members who attended included the following project management staff from Caltrans: Doug Failing, District 7 Director; Abdi Saghafi, SR-710 Tunnel Technical Study Project Manager; Deborah Robertson, Deputy District Director, External Affairs; Deborah Harris, Chief, Media Relations and Public Affairs; and Maria Raptis, Public Information Officer. Lynda Bybee, Los Angeles County Metropolitan Transportation Authority (Metro) Executive Director of Regional Communications, and Dr. Dan Eisenstein, Metro Tunnel Expert, also attended. Other Study team members who participated in the meeting were: Ayman Salama and Yoga Chandran of CH2MILL; Steve Klein of Jacob Engineering; Al Wattson of Paladin Professional Consultants; Rebecca Barrantes, Enrique Gasca, Glenda Silva of The Sierra Group (TSG); Claudia Gonzalez from GCAP Services; and Katherine Padilla, John Limon and Thelma Herrera, of Katherine Padilla & Associates.

MEETING FORMAT

The meeting began at 6:30 pm with an informal Open House. There were informational stations set up around the room with displays that depicted a range of topics, including: The Study Background and Public Involvement Process; The Technical Advisory Committee and the Steering Committee, both of which provide Study oversight; research methodologies of The Exploration Program; examples of subsurface soil and rock samples that are being collected as part of the Study; and modern tunnel building techniques. The Open House format provided community members with the opportunity to ask questions and engage in one-to-one conversations with knowledgeable Study Team Members.

The Presentation portion of the meeting was convened at approximately 7:15 pm. The audience was welcomed by Kenneth Sidle, Chairman of the South Pasadena Transportation Commission, and Doug Failing, Caltrans District 7 Director. Mr. Failing explained the Study background.
He also stated that the Study was being conducted in a route-neutral manner, and defined the meaning and its significance.

Steve Klein and Yoga Chandran, geotechnical experts, then provided a PowerPoint presentation that described the Study Purpose and process; geological factors and their influence on tunnels; modern tunnel systems in Madrid, Shanghai, and Paris; and The Exploration Program that is currently underway to determine subsurface soil, rock and other geological conditions within the Study area. The notification process, including door-to-door outreach to neighborhoods adjacent to the exploration sites, was also described.

COMMUNITY DIALOGUE

After the presentation, community members participated in a Question & Answer session. District Director Failing and members of the Study team listened, sometimes asking questions for clarification, and responded. The session was facilitated by Deborah Robertson of Caltrans. Topics discussed included: past studies conducted; tunnel ventilation systems; the cost of the Study, potential costs of tunneling and possible sources of funding; and the need to report research findings to the community.

The questions and comments offered by community members are categorized and appear below. Responses from District Director Failing and Study team members are indicated in italics.

Study Costs

- Why do we have to spend so much time and taxpayer dollars on a Study that might prove feasible?
  *Caltrans and Metro have committed to cities to determine whether the tunnel would be feasible within this area. The route is not yet specific. We are trying to find the easiest and most cost-effective route through our geotechnical research.*

- What is the cost of maintenance for the tunnel per year? Where is the public money coming from? Will the tunnel require tolls?
  *Maintenance will depend on the type of tunnel. It has not been decided whether this will be a public-private project. Funding will be assessed when the Study reports have been completed.*

- The cost of the Subway to the Sea is $18 Million. How can you expect the cost of the tunnel to be less than that?
  *We are trying to find a solution. We are only studying whether this is a possibility or not. We haven’t addressed cost yet.*
Research and Testing Methodology

- What time at night will the (mild) vibration (created by seismic reflection testing) take place? Why not at 6 a.m. on Sunday?
  
  *This type of geotechnical tests are conducted between 2 p.m. and 2 a.m. because there is very little ambient noise and little on-street activity at that time. The permit from the City of South Pasadena restricts the studies between these times.*

- What kind of damage will there be to buildings, concrete, etc?
  
  *Vibrations are so mild that they will not cause any damages to structures or concrete in the area.*

- How much noise do the vibration machines (for seismic reflection tests) make?
  
  *17 to 19 decibels*

- What are the alternatives to the routes? Why are they located in the geographical zones?
  
  *The zones are just for study purposes. The appropriateness of the zones will be determined at the end of the study based on the findings.*

- What if the results show that a tunnel is not feasible?
  
  *Then we don’t have a tunnel. We do not have a back-up plan. This is simply to determine whether a tunnel is an option.*

Borings

- Why not bore deeper?
  
  *The general range of the borings is from 250-500 feet depending on the site.*

- Will the public be able to review the findings of each boring location?
  
  *The result studies are to be available and held for the public. The samples are kept available for a period of time. Some borings may not be necessary based on data that is already available so that the borings can be reallocated to other zones.*

- Why weren’t people in the community contacted for approval for the borings?
  
  *Approval was granted by the city. We secured city permits.*

- Are San Marino citizens aware of the drilling in their community?
  
  *Yes, they are aware. Members of the City Council and the community are a part of the SC and the TAC and public notices are being distributed in areas surrounding boring sites.*

Water Tables

- South Pasadena has a recent history of failing wells. Water depth is between 100 feet - 150 feet. How will this affect water usage?
  
  *We have not yet done any studies to find out the effects. Pre-cast segments, watertight tunnel options and mining systems are available to minimize the impact of sensitive ground water areas. If necessary, measures can be taken to mitigate the impact.*

- Are water tables being measured in the borings?
Yes, they are being measured. This is crucial information for the study.

- What is the anticipated impact of the ground water level, ground water quality and movement in these borings?
  *Every boring, at every 150 feet, a sensor and water barrier is placed to avoid movement of soil and water into the hole.*

- What kind of soil or rock material would make the project unfeasible? Has there been any damage to any tunnel by an earthquake before? What about contaminants?
  *Soil with a lot of liquid would be difficult; however, tunnels can be built in many types of soil and many environments. There are samplings and studies looking for contaminants and hazardous materials. To our knowledge, no damage has occurred to a tunnel because of earthquake. The safest place to be in an earthquake appears to be in a tunnel. With the 1994 Northridge earthquake, the tunnels in the Metro Red Line suffered no damages. Caltrans takes seismic precautions very seriously and they are studied extensively.*

- Given that Caltrans and Metro did not provide funding for the promised noise and safety provisions (for previous projects), how can we expect for this for a tunnel?
  *These are important questions, but these can be answered in the environmental review phase. There are issues of safety standards that are to be examined closely in the environmental phase.*

**Study Conclusion**

- After the study is completed, what will happen next? What will be done with the data?
  *Our next steps depend on the results of the data. The data results will be reported to the public.*

- Will these studies lead into an environmental study? What will the process be and what public input will be received?
  *This is a possibility. Be aware there would be a multi-step process, including public scoping process, environmental studies, traffic studies, financial studies, etc.*

**Route Neutral Study**

- If this is a route neutral study, why is SR-2 is not listed as an connector option in any of the literature.
  *It is incorrect in the public information--it is an error. All options are being explored.*

- How is the approach route neutral if a tunnel can be built anywhere, based on available technology?
  *The aim of our route neutral study is to find the best location and to accommodate the community.*
• There was a previous study that said this was feasible. Is this a smokescreen to hide the tunnel project?
   No, we are determining where the best route would be and whether it is feasible. Technology has changed since the last study.

Tunnel
• Will the tunnel accommodate trucks?  
   The further environmental study will determine whether the tunnel should accommodate trucks.
• Will trucks be allowed in the tunnel? How do we know that this won’t be the last study?  
   Ultimately, trucks being allowed in the tunnel depend on further environmental study.
• How much is public transit going to be used in the tunnel besides buses?  
   That will be something that can be researched in the environmental process.
• How will the tunnel be vented? Will there be ventilation stacks?  
   No detailed ventilation studies have been done to date. There are advanced technology methods that would not necessarily include ventilation stacks.
• How are the Madrid, Paris and Shanghai tunnels ventilated?  
   Madrid tunnel has jet fan ventilation systems, the Paris has a transverse jet ventilation system with jets both above and below.
• How many lanes could the tunnel have? Are there any examples of a freeway tunnel with 4 or 5 lanes?  
   Yes, there are examples with 6 traffic lanes. Currently, however, we are simply looking at the feasibility of a tunnel.
• What happens if the tunnel is constructed? Will it be very congested? Will the state pay? Will there be tolls? How will this solve congestion and be financially feasible?  
   These questions are great but cannot be answered in a tunnel technical feasibility study.

Outreach
• How was outreach performed? What are the alternatives besides a freeway tunnel?  
   Door-to-door canvassing occurs 24-48 hours in advance. This is done close to the date so that we can deliver the most accurate information as soon as possible. Information is available 24 hours a day, 7 days a week online, at www.SR710TunnelStudy.info, and at the Study Information office, or you may call (323) 222.1710.
• Will these studies lead into an environmental study? What will the process be and what public input will be received?  
   This is a possibility. There would be a multi-step process, public scoping process, environmental studies, traffic studies, financial studies, etc.
Other

- Will people who live over the tunnels be able to buy earthquake earth movement insurance?

*We do not have any information on this at this time; however, people who live over the Metro tunnels (the Red Line) are able to have earthquake insurance.*

**NEXT STEPS**

The meeting concluded at 8:57 pm. At the meeting conclusion, District Director Failing thanked the community of South Pasadena for their participation and assured them that they would be kept informed throughout the Study.