Steering Committee Meeting Minutes
S.R. 710 Tunnel Technical Study
October 27, 2008 6:00 p.m.
Luminarias Restaurant
3500 W Ramona Blvd., Monterey Park, California

I. CALL TO ORDER –

The meeting was called to order at 6:07 pm.

II. INTRODUCTIONS AND MEETING OVERVIEW

The following people attended the meeting:

SC Members:	**SC Member Alternates Present:**
Lynda Bybee, Deputy Executive Officer of Regional Communications, Los Angeles County Metropolitan Transportation Authority (Metro) Michael Cano, Transportation Deputy, Office of Los Angeles County Supervisor, Michael D. Antonovich, 5th District Stephen A. Del Guercio, Mayor, City of La Cañada Flintridge Sharon Martinez, Councilmember, City of Monterey Park Steven Placido, Vice Mayor, City of Alhambra Pratheep Piratheepan, Geotechnical Design Unit, Caltrans District 7 Philip C. Putnam, Mayor, City of South Pasadena Eugene Sun, Councilmember, City of San Marino David Worrell, Representative, City of Pasadena Stephen Zurn, Director of Public Works, City of Glendale	Tony Catenacci, Interim Transportation Manager, City of South Pasadena (Alternate for Richard Gutschow) E.E. Wang, Representative, City of Alhambra (Alternate for Alternate Leland Dolley) Subodh Kumar, Representative, City of Pasadena (Alternate for David Worrell) Ms. Suzanne Manriquez, Senior Field Deputy, Office of Los Angeles County Supervisor, Gloria Molina, 1st District (Alternate for Nicole Englund, Transportation Deputy) **Absent/No Alternate Present:** Naresh Amatya, Program Manager II, Southern California Association of Governments (SCAG) Harry Baldwin, Mayor, City of San Gabriel, (Representing San Gabriel Valley Council of Governments (SGVCOG)) Borja Leon, P.E., Transportation Policy Analyst, Office of the Mayor of Los Angeles Edel Vizcarra, Assistant Planner, Office of Los Angeles City Councilmember Jose Huizar, 14th District

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Caltrans District 7 Staff:	**Elected Officials:**
Douglas R. Failing, District 7 Director	Monica Alemán, Field Representative, Office of Assemblymember Mike Eng, 49th District
Deborah Robertson, Deputy District Director for External Affairs	Arturo Chavez, District Director, Office of Senator Gil Cedillo, 22nd District
Abdi Saghafi, Project Manager	Alana Yanez, Field Representative, Office of Assemblymember Kevin de León, 45th District
Deborah Harris, Chief, Media Relations & Public Affairs	Joseph Martinez, Transportation Liaison, Office of Congresswoman Hilda Solis, 32nd District
Shiva Karimi, Senior Transportation Engineer	**Technical Consultants:**
Fariborz Gahvari, Senior Transportation Engineer	Ayman Salama, Project Manager, CH2M HILL
John Ehsan, Geotechnical Unit	Yoga Chandran, Technical Lead Engineer, CH2M HILL
Community Facilitation Consultants:	Steve Klein, GE, PE, Tunnel Structure Lead, Jacobs Associates
Rebecca Barrantes, The Sierra Group	Hubert Law, Geotechnical Lead, Earth Mechanics
Ed Salcedo, GCAP Services	
Enrique Gasca, The Sierra Group	
Rena Salcedo, GCAP Services	
Thelma Herrera, KP&A	

For the purpose of review, Committee Member's names are spelled out during the question and answer periods. Project Staff names are denoted by their first initial and spelling of their last name.

The meeting started at approximately 6:07 p.m.

Welcome: Doug Failing, District Director, Caltrans District 7

Doug Failing, Caltrans District 7 Director, opened the meeting by thanking Monterey Park Councilwoman Sharon Martinez for assistance in securing the meeting facility. He welcomed the Steering Committee (SC) members and other attendees. Introductions of SC members (or alternates), Caltrans staff, consultants, representatives of elected officials and additional guests followed shortly.

Mr. Failing discussed additional items, as noted below:

D. Failing: We are here for two things today. The first one is, and this is the last time we're going to say this; we are here to educate you. We plan to get a little more technical. After this, we are going to have a common basic knowledge and understanding of the study. We hope that as we move forward we can get to the meat of the issues. This is the last time we are going to concentrate on an educational type of presentation. We had a good discussion with the Technical Advisory Committee during the last meeting. Hopefully they have had the chance to discuss some issues with you and share their thoughts regarding the processes that were proposed. We really look forward to hearing from you in regards to how we may steer this study with the idea of ending up with a route neutral geotechnical screening process. There are a lot of questions that we hope to answer. What are we going to do with the borings? When and where will there be borings? What information can we expect form the borings? How will Caltrans, Metro & CH2M HILL use this information?

I really want to thank Mayor Putnam from the City of South Pasadena. I really appreciate his letter. He sent a rather extensive letter that all of you should have received a copy of. I think that it is important for us to get that level of documentation and get those questions in early. Some of them will be answered as we go through this Steering Committee process. Many of the questions he raised may be answered later in the process as we get more information through the screening process. They were all very good questions. All very well thought out. All very important for us to discuss and talk about. We are going to spend some time with Mayor Putnam's letter. I think we owe you a response to the letter and that it deserves a well thought out answer. I would also like you to look at the Steering Committee role. We are here for your input and that is to help us bring

forward community values, questions and concerns as we discuss our outreach efforts and before we start doing the borings in your community.

Again, thank you all for being here. Thanks to our partners Metro. I'm going to turn this over to Rebecca.

Meeting Overview: Rebecca Barrantes, Community Facilitation Team

Rebecca asked the SC to review the August 18, 2008 meeting minutes and email edits to egasca@thesierragrp.com. She reminded all attendees to sign-in in order to record their participation. She also informed the SC that Committee Participation Evaluation forms were distributed at every member seat and that completed evaluations could be dropped into the box provided upon leaving the meeting, or faxed to the number provided on the form. Rebecca added that the evaluation form would also be distributed to the TAC. She also noted where the restrooms were, addressed the process for using the microphones to prevent feedback, and other housekeeping items. Major items from the previous meeting were reviewed, including the consensus on the exploration zone boundaries, consensus on evaluation criteria, and additional information requested on boring sites and tunnel systems.

Meeting objectives were reviewed, which included roadway tunnel systems, planning and design of tunnel systems, the boring process (soil sampling), exploration of the zones, and recent information related to the zones.

The following Guiding Principles were reviewed:

- Develop reliable geotechnical information for tunnel options
- Respect route neutrality
- Clearly communicate the purpose and scope of the study in order to solicit public input

The following Ground Rules were reviewed:

- Require mutual respect
- Listen to each another
- All ideas are valid
- You don't always have to agree on everything
- Seek common ground, not problem or conflicts

Tunnel Education Workshop: Ayman Salama, Steve Klein, Yoga Chandran, CH2M HILL

Steve Klein opened up the presentation by discussing the circumstances where using a tunnel structure would be beneficial and necessary. He noted that tunnels are often constructed in areas

where surface access is not feasible or practical. He also noted that tunnels are constructed to avoid impacts to areas that are environmentally sensitive, to avoid impacts to communities, and avoid the need for right of way acquisition. Mr. Klein continued the presentation by providing an overview of the uniqueness of tunnel structures.

S. Klein: Highway tunnels are a unique facility that we do not see a lot of. The objective is to safely and efficiently move vehicles from one end of the tunnel to the other. They are slightly different from other types of tunnels, such as mass transit tunnels, because you have vehicles that are moving in a somewhat unpredictable manner. Sometimes you can have heavy traffic and sometimes traffic can be very light. If you have a mass transit tunnel a train would run according to a schedule and would be spaced out. Tunnels are also confined spaces, so in order to have a safe tunnel you need to create an environment in the tunnel that will be safe. We need to provide ventilation, lighting and other tunnel systems. There are limited entries and exits into the tunnel and you can only enter the tunnel at either end or through intermediate access points. Another important issue is the transition from the open highway to the tunnel. As you are aware, there are certain psychological differences coming from an open air environment to a confined space. From a traffic point of view, people tend to slow down as they go into a confined space.

Steve Klein proceeded to provide an overview of various tunnel systems. He reviewed communications systems in tunnels including message signs, and public broadcasts systems. He discussed control centers and how they are used to monitor traffic, look for slow traffic or incidents and communicate messages to motorists. He also discussed ventilations systems.

S. Klein: Jet fans are reversible and can blow fresh air in either direction. In conjunction with ventilation system, we also have systems to monitor air. We monitor oxygen level, carbon monoxide level and temperature in the tunnel. This will help operators decide how to adjust the ventilation system. There are also motorist aid stations equipped with emergency phones and sometime fire extinguishers. There is also an egress in case an emergency would require motorists to evacuate. There is a refuge center in there where people could stay until the emergency passes. This is a cross passage for a tunnel in Madrid. They are located every 200 meters, essentially 650 feet apart. Generally every third cross passage has the

capability to allow emergency response vehicles to go from one tunnel to the adjacent tunnel in an emergency.

Y. Chandran: We spoke last time regarding geotechnical considerations for tunneling. I am going to expand on that today. The geological conditions will generally influence the tunneling methods starting with the variation in soil conditions. This includes whether it is hard rock, soft rock, soft soil, and so on. Subsurface rock conditions, such as existence of boulders and the size of existing boulders, would control what methodologies are to be used. Hard or soft soil conditions (i.e. liquefiable soils, very soft flowing soil, or squeezing soil) are also factors because soil tends to flow to the tunnel. You can have ground water conditions like we have in the study area and would need to determine what kind of pressure you would have and how you are going to balance that with the tunneling method. Is the tunneling going to impact any of the groundwater resources? Are there any hazardous materials? Is there contaminated soil? Is there contaminated water? We are going to be mostly concerned with the disposal of contaminated materials and safety of the operator. Is the tunnel going to cross any active faults or not?

This is a map of our project and the colors show the geological variation of soils that you can encounter. This is typical on any project when you study from a geotechnical standpoint. This is also one of the sections that we have done for our project. You can see the variations from alluvial to hard rock to soft rock. The size of each of those units is going to be key in selecting the tunneling method.

Exploration program for tunneling is done in different phases. The level of exploration you perform depends on which phase of the project you are on. It starts with information collection and data review. It is composed of geologic mapping, geophysical surveys, drilling, and fault trenching if you are going to cross an active fault. These are the components that we are going to look at during our study. We will do all of these on a limited basis because we are at an early stage of the process.

Y. Chandran Cont.: There are several methods used in subsurface exploration, including small and large diameter borings, core penetration testing, and geophysical methods. We can use some geophysical surveys to get continuous 2 dimensional profiles of the subsurface soil conditions. At times, you will use incline or horizontal borings to get a more continuous profile of the

tunnel alignment. The typical boring diameter used for the proposed tunneling is 50 feet plus or minus a few feet and the depth will extend at least 50 to 100 feet below the proposed invert. If you encounter some soft soil, the boring depth may be extended further down in order to capture the material. Sampling intervals, generally through alluvial soil, are sampled between 2 to 5 foot intervals. As we get into bedrock, we do continuous sampling.

We do field testing for most of the borings in order to characterize the material so we can use it for tunnel ground behavior design. Packard testing is used to get the permeability of the flow characteristics of the material in the tunnel zone. The pressure meter test is used to get strength of the material between the tunnel zone and above or below it. Optical televue, in which you get a continuous log of the boring and a digital image that shows features, such as discontinuity, is also used. This is information that you would use for tunnel behavior analysis. Hardness of ground, which can be determined by sheer velocity methods and the magnitude of the sheer velocity, would dictate the strength or hardness of soils.

Y. Chandran: A tunnel, being an underground structure, performs much better than an above ground structure, mainly because the tunnel moves with the soil. You do not see the displacement that you would normally see with a building above ground. You get much better performance for tunnels in a harder material than softer material and better seismic performance for tunnels that are deeper in the ground.

General factors affecting behavior and performance of the tunnels are proximity to faults, magnitude of nearby faults, hardness of the ground, movement to be expected if the tunnel crosses a fault, and the size of the tunnel. Smaller tunnels tend to perform better than larger tunnels.

Seismic analysis is generally done in a two step process. You apply the ground deformation that you would expect at the tunnel elevation and predict the deformation or the displacement of the tunnel units.

S. Klein: One of the other issues with a tunnel is where it crosses an active fault. We have this potential situation in a number of the zones. In this area, it requires a special design approach. This generally depends on how much movement you expect at these faults. Some of these faults can move

several feet to several inches, depending on the significance of the fault. When you have a fault that can move several feet, you enlarge the tunnel in the fault zone and construct a tunnel within a tunnel and fill the space in between with a compressible material. When the ground moves and the outer tunnel sheers, those deformations are not transmitted to the inner tunnel. This design approach was used by Metro for the red line tunnels through the Hollywood Hills fault zone.

When the movements are less, you can design the tunnel with shorter segments that cross the fault to encourage a more articulated behavior. This technology has been imported from Japan. There are special seismic joints that can be put into the concrete lining sections in the tunnel. These can allow some articulation, extension, or compression. Also, it is like a flexible coupling and you can put several of these in the tunnel within the fault zone to try to encourage a more articulated behavior. This could work for several inches of movement up to 2 feet of movement.

When you get to the large movements, you have to go to the other method (tunnel within a tunnel), which is more expensive but is another approach that can be used to construct tunnels through active faults so that they will perform safely.

Questions, Answers, and Comments following Tunnel Education Workshop:

Philip Putnam: This is for the person that was speaking about the criteria that went into a tunnel design including soil types, the presence of boulder, etc. I noticed one of the criteria that you left off the list, which we talked about once before, is consistency of the ground that you were going through in the tunnel. I know that most contractors would rather have hard material that is consistent (or even soft soil that is consistent) rather than going through different types. Is that correct?

Y. Chandran: That is correct. We talked about uniformity and the variability of the soil conditions. It is better if you have a consistent material type. The harder the material (hard rock), the more stable the tunnel. If you have mixed conditions, you will have more difficulty.

Stephen Del Guercio: Just to follow up on that question, back when we had the Northridge earthquake there was a lot of discussion in the literature regarding structural failures and how that occurred because they were built over

bedrock in one part and fill in the other part. Even though they were compacted where the two types of soils met, they reacted differently to the seismic waves and therefore you had fractures and breaks in the structures. Would the frequency between alluvial and bedrock be a consideration so that you would have to do something special at each transition?

H. Law: You are quite correct. When you have two different materials, in the case of a building where some support is on soft soil and other support is on rock, what happens is the tendency for two supports to move differently. The same thing could happen in a tunnel. When you go from soft material to hard material, you have to pay special attention to looking at how the ground motion is input into the tunnel system by looking at the soil structure. That will take into account the action between soft ground and hard ground in relationship to the stiffness of the tunnel.

NOTE: A core sample was provided to SC member to view. It was taken from previous boring activities in the City of Pasadena that were not related to this study.

R. Barrantes: Are there any more questions from the committee?

Mike Cano: Where is the threshold between mitigatable circumstances in dealing with these different variables in the soil to not possible? Can you give me an example of how extreme the conditions have to be, when feasibility is called into question?

S. Klein: In my view, we have the technology to build tunnels through almost any geological formation you can imagine. There has been an explosion in the tunnel industry in the last 10 years. They are building tunnels all over Europe. There has been a huge expansion in the high speed rail and all the countries want to be connected. They are building tunnels through the Alps at depths of up to 2000 meters. Fifteen years ago, this would have been unprecedented, but now these projects are getting completed. What it really comes down to is a matter of cost. I showed you a picture of the Madrid ring tunnel. That is a 50 foot diameter tunnel boring machine. After that project was finished, the company that made that machine made a machine that was a couple of feet larger. They are building similar tunnels in Shanghai underneath the Yangtze River. The technology is already there to address these different types of conditions, but the first step is to find out what is out there and how we can approach it from a construction point of view.

Mike Cano: The idea of cost is beyond the scope of this group. If we are talking about understanding the feasibility of tunneling in any of these sectors, cost sounds like an issue that we are not going to examine. Cost is more determinative than what you are finding. You are more about understanding what is there as opposed to finding things that are going to disqualify certain paths. Is that fair?

S. Klein: It is really hard to say unless you know what you are dealing with; however we have seen a lot of advances in the technology in the last 10 years. I think we are going to see the technology get better in the future because there is a lot of interest within urban areas to construct tunnels.

A. Salama: As Yoga mentioned from the earthquake point of view, if you are going for an underground structure the impact of the variation of the seismology is much less than if it is above ground. The impact of the magnitude of the variation of the earthquake will be better mitigated by an underground structure.

R. Barrantes: Any more questions? Of course if you think of anything, you can always email questions to Abdi and Ayman and they would be glad to give you that information.

BREAK: Rebecca Barrantes notified the committee that the core sample was available for viewing during break. The Committee had a 15 minute break.

Boring Plan Sites and Permit Process: Abdi. Saghafi, Yoga Chandran and Steve Klein

Y. Chandran: These maps show the definition of each of the zones. We are looking at the topographic map for Zones 1 through 5. I will provide a summary of the exploration plan for each zone:

- Zone 1: 8 borings, 5 geophysical lines
- Zone 2: 5 borings, 3 geophysical lines
- Zone 3: 12 borings, 7 geophysical lines
- Zone 4: 4 borings, 2 geophysical lines
- Zone 5: 4 borings, 2 geophysical lines

We have developed a proposed schedule for the boring program. After this meeting, we plan to approach each of the cities for encroachment permits. We will start with site reconnaissance to ensure that we are not near any

sensitive areas. We will perform some geological mapping and gather other geological information that is pertinent to the study. We would like to start the drilling process and are hoping that the permits come through in late November. Drilling will be performed by both Caltrans and CH2M HILL. We will continue on to the lab testing, data evaluation and summary report. Planned activities include getting hazardous waste clearance from a health and safety perspective. We will be doing a data search to see if any of the proposed sites are located in contaminated areas. We will be starting with encroachment of the drilling program in the cities of Pasadena, South Pasadena, Los Angeles, and Alhambra. We will continue with the other cities after that.

Each boring will take approximately from 7 to 10 days. The ideal workspace needed is 50 by 20 feet; however we have worked in smaller areas. We have been doing some data searches, as we will continue to do throughout the study. We have identified 2 Superfund sites. These two sites are located in Zones 4 and 5. Based on the data reviewed, the groundwater in this area is contaminated with volatile organic compounds (VOCs) of varying concentrations. The depth of the groundwater table in these zones is from 50 to 150 feet. At this time, we have conceptualized that the tunnel will be about 200 feet below ground surface. If a tunnel is built, it will likely go through the Superfund sites. The lighter shade means that the concentration is at a lower level and the red means a higher level of contamination.

The Superfund law was enacted to protect people and communities from hazardous waste. One, the law established levels of responsibility and ways to identify the responsible parties. Two, it identified current or former operators of the site. For example, if someone transported or disposed the contaminated or hazardous material from the site, they would be responsible. The third, which would be of interest to Caltrans, is if someone caused the contamination to expand beyond the boundaries of the original contamination, they would be responsible. We need to explore this more to assess liability. If we choose to excavate within Superfund sites, we have to get a written approval from the EPA and will have to use a contractor who is certified to perform in these sites. Under the law, if you cause the contamination to spread, you are expected to clean up the contamination. Constructing in Superfund sites is more serious than constructing in non-Superfund sites. We need to understand what this means to the project and what steps we need to take. We need to

understand the level of contamination, what to expect as we go down to the groundwater table, associated risks, and what measures need to be taken to contain contamination. We need to explore the answers so we can plan accordingly. Based on what we found, our current recommendation is to proceed with boring in Zones 1, 2, and 3 and postpone borings for Zones 4 and 5.

R. Barrantes: We are going to have discussion in just a minute. I would like to go over what we heard from the TAC. We sent you the TAC meeting minutes last Friday. We would like to take some time to go over their main points and input. First and foremost they said that we really need to work with each city that is impacted by the boring schedule and make sure that they were briefed in great detail. They wanted to have a schedule of the borings submitted to both the TAC and SC. CH2M HILL has agreed to do this. The actual schedule is dependent on getting the required permits and clearances needed. They want to make sure that representatives from Zones 4 and 5 are at the table, should we consider them as part of the study. Again we have to come back with more information about Zones 4 and 5. They wanted us to provide a detailed outline of the screening report, which Yoga talked about. Lastly, their input to us to was to proceed with borings in Zones 1, 2, and 3; and delay borings in Zones 4 and 5 pending the information that Yoga said we need to determine.

<u>Questions, Answers, and Comments during Boring Plan Site and Permit Process:</u>

Mike Cano: Since this is a federal issue Congressman Schiff should be apprised of the situation considering the fact that he is looking for zone or route neutrality. If we are going to have postponements or if at some point it is actually not feasible to conduct borings in those Zones, it would be helpful if Congressman Schiff could provide a statement to the Committee that these new conditions are not going to undermine his concept of route neutrality.

The second thing is that my office would like to know the progress in getting these permits from the different jurisdictions so they don't lag. We don't want to extend the process beyond what it should be and don't want to waste money. The jurisdictions that are involved in the boring sites should make a good faith effort to get the permit process done as soon as possible and to expedite it.

Y. Chandran: To answer the second question, we are waiting for the TAC and SC meeting to present our plan and moving forward and approaching the cities discussed. Starting tomorrow, we will most likely be approaching the 4 cities provided earlier: South Pasadena, Pasadena, Los Angeles, and Alhambra. Our goal is to get this started as soon as possible. We had some discussions about holidays coming up and restrictions in work schedule during holidays. We would like to get as much done before the holidays, but if we have some restrictions that come up we will have to deal with them after the holidays are over. In terms of the Superfund sites, we are trying to get a meeting arranged with the EPA. Hopefully that will come through within the next week or so. Based on that, we can discuss what the findings are.

Mike Cano: My point on the Superfund part is that if it turns out the Federal or EPA process is going to take 2 years to figure out, as a pragmatic point of view, it doesn't seem that we should be held hostage to that process if we are trying to keep to a different schedule, or we should at least have a discussion about that with the sponsor of the study. Otherwise, these are events that could expand this process for another 2 to 3 years and that is not what seems to be the will of getting into this whole endeavor.

R. Barrantes: Any other comments or questions?

Stephen Del Guercio: I have a couple of them, actually. In looking at locations in Zones 4 and 5, where borings are going to actually occur, it seems to me that with the exception of one in Zone 4, you are really not actually boring in the plume of groundwater contamination for any of the Superfund sites. Why would that hold up the process?

Y. Chandran: You are correct. Most of the borings can be moved outside the Superfund site, if necessary. The biggest concern is which measures need to be taken if we want to build a tunnel through a Superfund site. We don't want to go and drill to later find out that there was a fatal flaw in our process. We want to hold back and see if we can find more information. We have time to go through drilling activities in other zones, so we are not wasting time. We want to delay drilling in Zones 4 and 5 for the time being until we get more information.

Stephen Del Guercio: I can understand that. My initial reaction is that when you are going to be boring this tunnel, this is all groundwater contamination. You are not going to encounter any soil contamination, just the groundwater. In my

experience people punch holes and drill in these aquifers all the time for development. Development did not stop in these Superfund areas just because there are some VOCs in the drinking water. This is really an issue of whether the water is safe to drink and there is no threat of exposure to humans other than drinking it.

Y. Chandran: The whole study that was done was based on borings and samples conducted in those areas. Drilling in those zones are not big issues. Each boring costs $100,000 plus. We are looking down the line to get information and if we find that it is not a big deal, we will move forward. At this time, we are not rushing into boring in Superfund sites.

Stephen Del Guercio: Do we have environmental engineers that are familiar with these kinds of issues on our consulting team?

Y. Chandran: In fact, some of the studies are being done by CH2M HILL. That is how I came across some of this information. We will be consulting with them as we move forward.

Stephen Del Guercio: I have one more question. I think this question was raised at the TAC meeting as well. It has to do with the gap between the Zones 1 and 2. Are we precluding ourselves from a possible alternative within the gaps because of the way that we have drawn the zones?

Y. Chandran: We are not. In the last meeting, it was pointed out that we could make this straight. In the way we choose the borings, the line is somewhat arbitrary. We won't be precluding anything because of how this boundary has been defined between these two zones. The gaps will not give us any more information than what we can obtain in the zones themselves. If we find there is another potential alternative, that fits the parameters we are looking for, the information that we collect within the zones should be adequate for the level of investigation we are currently doing.

Stephen Del Guercio: The idea is that we are not going to find out down the line that one of these zones is not a viable option because of its distinct size and if we had drawn the line a little further, it could have been included instead of excluded.

Y. Chandran: That is correct.

R. Barrantes: Any other questions from the committee?

TAC Report: R. Barrantes

R. Barrantes: Here is your TAC input. The TAC concurred with the staff recommendation to postpone borings in Zones 4 and 5, and proceed with Zones 1 through 3. All of the rest of these requests will be completed along with the request from Mike Cano to contact Congressman Schiff's office regarding Superfund sites and route neutrality to ensure that he is aware of this and that this is not an issue that we stumble upon. We will also add that to our list of action items and next steps.

My question to the SC is, does the Committee concur with the TAC's input and do you have questions or additional information you would like to provide at this time?

David Worrell: I have no questions.

Phil Putnam: I don't have any questions; however I wanted to note that we provided a really detailed response in writing from the City of South Pasadena. It was indicated earlier that those questions would be addressed. Rather than raise those questions in the meeting, we put them in writing so there is no misunderstanding regarding the scope of our questions.

R. Barrantes: Mr. Failing said that we would be writing responses to all of those. We will put that on the next steps as well. Are there any other comments from the committee? Do we have consensus on these items as well as contacting Congressman Schiff's office and getting a response to Mayor Putnam's letter?

OK, right now we have consensus to move forward with everything that the TAC has reported, including the SC input. Our next steps would be to get back to every city that we are looking at for borings and to report back to you with a schedule of borings. We will also provide you with an outline of the screening report so you know what results will be contained in the report.

Permit Application Process: Yoga Chandran

Y. Chandran: The plan of action for us is to approach the four cities and start the encroachment permit process. I am hopeful that this will be a painless process. In the past it has been fairly easy and some have been within a week or two. As soon as we get the permits, we will be lining up our crews to get going. One step is the hazardous waste clearance, which is an internal process for our safety. We are hoping to start the drilling program in the third or fourth week of November. We will have two crews working: one from Caltrans and one from CH2M HILL. Depending on the availability of the drill rigs, each of us may double up on the drill rate. At times, we could have four drill rates going on. Hopefully we won't put all of them in one city so we do not burden anyone. Since we have a large area to work with, we can distribute them. Generally, lab testing will lag behind the boring program by 3 to 5 weeks. Depending on the level of detail that we go into in our testing program and the data evaluation, the summary report will be a couple of months from the time we finish our investigation program. I am guessing that as we go through, we will provide updates on what we find.

Questions, Answers, and Comments following Boring Plan Sites and Permit Process:

David Worrell: Could you describe the difference between the drilling that Caltrans is going to do and the drilling that CH2M HILL is going to do? Why are we using two companies? What is the cost difference? Which sites are going to be drilled by which?

Y. Chandran: We are using both Caltrans and CH2M HILL to expedite the process.

D. Failing: The drilling will cost about the same for each drill hole. We have drillers that are capable of doing the same work and it doesn't cost us any more or any less to use our drillers versus their drillers. The teams will get together at a technical level and based upon where we are at, who is doing what, and how we can move our equipment around, we will come up with who is doing which holes. There is really no more reasoning behind it than that.

David Worrell: Who will be drilling the holes?

D. Failing: The Caltrans holes will be by Caltrans drillers. It will be an employee drilling and won't be a subcontracted driller. Our guys will use the same process and the data will be distributed to the same place.

R. Barrantes: Any other questions? Let's talk about the public notification and outreach process.

Public Notification Program: Rebecca Barrantes

R. Barrantes: As Yoga said earlier, we are going to be going out in the field and looking at each boring site to determine the exact location and if they are located in sensitive areas, such as schools, churches and homes to exactly where they are. From that survey, we are going to be developing the kind of outreach that we will need for those affected areas. First and foremost before anything happens in anyone's community, we are going be talking to Federal, State and local elected officials in Zones 1, 2 and 3 to make sure that they understand the purpose of the study, discussions that we have had with the SC and TAC, and information related to the proposed boring activities. We will use public notices and Fact Sheets to let the community know about the study and borings. We will distribute this information through public facilities, the study website and city websites, and we will also be canvassing.

As we get closer to the start of the borings, we will go out ahead of time to the local area to make sure that folks know about it. We also have the information line and project study office available to answer questions about the study, the borings, and the whole process. We will have the time to do this. This is considering the time it takes to get all the permits, in case that there are places where we can't bore due to a moratorium, or scheduling difficulties due to holidays. Before anything begins, we will be out talking to the affected communities.

Are there any questions about the public notification and outreach program?

Believe it or not it is 7:40 p.m. and we are ending a little early.

Wrap-up: R. Barrantes

R. Barrantes: I would like to take a moment to go over our key points.

Recap of key points from this SC meeting:

1. Contact Congressman Schiff's office regarding Superfund sites and route neutrality implications (Caltrans)
2. Respond to Mayor Putnam's letter from South Pasadena (Caltrans)
3. Provide the outline for the Screening Report (CH2M HILL)
4. Provide more information about Zones 4 and 5 (CH2M HILL)
5. Provide preliminary results as we receive them (Caltrans/CH2M HILL)
6. Determine a time when we have enough information to bring the committees back to meet again to review (Caltrans)

This presentation will be emailed to the entire committee tomorrow in PDF so you can share it with others. You can also post it on your own websites. We will also post this on our project website.

Also, regarding the committee participation evaluation forms, if you could please do us a big favor and let us know what you are thinking and how we can do an even better job in supporting you.

As far as the future meeting schedule, again, that will be driven by when we have enough information to bring back to you as a committee. I think the timing will be close to the beginning of next year. The next meeting will probably occur during the first quarter of next year. We are looking at some of our other great cities in the study area. Monterey Park has been fabulous and we have enjoyed being here. We enjoyed being in our other locations. We are looking to Alhambra, Pasadena, and South Pasadena to also have some great meetings there.

Meeting was adjourned at 7:44 PM.

Minutes compiled R. Salcedo