President’s Message

Sri Chakravarthy, PE, TE

First of its kind and we promise we will start with a bang! A combined holiday party between three local professional organizations – ITE SoCal, OCTEC, and RSBITE - scheduled for December 10th, 6 PM at Los Coyotes Country Club in Buena Park. It will be a Casino night theme with a lot of exciting additional raffle prizes. Come hang out with your fellow professionals in a relaxed setting. Sponsorships to this event are pouring in and more are expected in the next couple of weeks. Look for the event flyer that will be out shortly, but more importantly – SAVE THE DATE!

Our October meeting presentation was an update on the ARTIC project by Jamie Lai, Transit Manager for the City of Anaheim. It was very well received by our huge audience.

The just concluded November joint meeting with RSBITE saw Tim Watkins from SANBAG present on the numerous transportation initiatives being considered as he neatly summarized in his presentation “Decision Time”. If there was ever a time when transit, express lanes, tolling, and other innovative transportation ideas had so much momentum, it is now. Similar transportation projects are under consideration, design, or construction through LA Metro and OCTA, and we well might be in that perfect phase in time when Southern California is seeing immense transformation.

I hope I will get to see all of you at our December event, but in case we don’t connect, have a safe and happy holiday with friends and family.

As always, we sincerely thank our newsletter sponsors South Coast Lighting for their continued support.

Brief Look Ahead

December 2013

- Tue 10th, 6:00-9:00 PM - Holiday Mixer with OCTEC, and RSBITE at Los Coyotes Country Club, Buena Park, CA (see flyer)

January 2014

- Wed 15th, 11:30 AM, ITE So Cal Section Meeting with City Traffic Engineers at Monterey Hill Restaurant
2013 – 2014, Issue No. 3

This year marks the 40th anniversary of Cal Poly Pomona's ITE Student Chapter. We are looking to celebrate our anniversary alongside all past ITE officers and members with a dinner on our campus this spring 2014. More details will be announced soon. There have been more than 200 officers in the past 40 years and we hope to gather as many as we can for this celebration. If you are a past ITE officer or member of ITE Cal Poly Pomona and are interested in attending, please contact me (Hector Salcedo). There is contact information that we are missing for the majority of the officers so help us spread the word. You can contact me at hectorivansalcedo@gmail.com and visit our website for future information at www.itecpp.wordpress.com. Also follow us on Twitter @ITECPP.

The monthly newsletter is a perfect venue for advertising your products and services, as it is circulated nine (9) times a year to approximately 800 ITE recipients all over Southern California. Advertisements are priced reasonably for the benefit of our members.

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Julia Wu, PE, PTOE (Port of Long Beach)

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Oct-13: Minagar & Associates
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Please contact Julia Wu at (562) 283-7882 or Julia.wu@polb.com to submit an ad and/or sponsor a monthly newsletter or luncheon.

US High Speed Rail comes to Hollywood

(Photocredits: Geeti Silwal, AICP of Perkins Will and Annette Martinez of ITE Cal Poly Pomona)
The Institute of Transportation Engineers Southern California Section held a meeting on Wednesday, October 16, 2013 at Knott's Berry Farm Resort Hotel in Buena Park. There were 66 people who attended, included a number of students from UCI. Ms. Jamie Lai, P.E., with the City of Anaheim was our guest speaker and provided a presentation with the updates to the Anaheim Regional Transportation Intermodal Center (ARTIC) Project. The ARTIC Project will serve as a transportation hub for Orange County and the region. ARTIC services will include: Metrolink, Amtrak, OCTA bus, Anaheim Resort Transportation, taxis, intercity buses, international buses, tour and charter buses, private parking, pedestrian and bicycle access and a planned streetcar project. Designed to be environmentally-friendly with a LEED Platinum goal, ARTIC will also include interior and exterior public plaza areas, public art, landscaping, amenities such as electrical vehicle charging stations, and bicycle access to the Santa Ana River Trail. When completed ARTIC will increase mobility options for residents, business, commuters and visitors to Anaheim, Orange County and the entire Southern California region. Construction started on September 2012 and the project is expected to be completed by late 2014.

The California High Speed Rail Authority (CHSRA) (www.hsr.ca.gov) held its monthly Board Meeting on Monday, October 14 at Los Angeles Metro Headquarters. Highlights are as follows:

1. Anaheim Mayor Pro Tem Gail Eastman emphasized the importance of Anaheim being the southern terminus for Phase 1 as: (1) the Disneyland Resort is the region’s largest single site employer with 350,000 employees, (2) 20 million of Orange County’s 40 million visitors go to Anaheim, and (3) the 14 million square-foot ARTIC facility is scheduled to open in 2014 ahead of schedule and under budget. In a follow up discussion with the Mayor Pro Tem, ARTIC’s strong potential for serving HSR passengers from Northern California, Las Vegas, and Phoenix (an especially strong tourism source) was discussed.

2. Los Angeles County Supervisor Michael Antovich sees tremendous potential in the Bakersfield to Palmdale “Gap Closure” and Palmdale’s potential to tie into XpressWest (service to Las Vegas), but wants to make sure the ambitious ridership projections are met.

3. The CHSRA now has a mechanism for responding to “Unsolicited Proposals.”

The CHSRA also held an Industry Forum on Monday, October 28, at the Secretary of State Auditorium in Sacramento. While the primary purpose was discussing the $2 billion RFQ to design and build “trackway civil infrastructure up to the top of subgrade,” some fascinating transportation issues were also presented.

1. According to CHSRA CEO Jeff Morales, “controversy is nothing new.” The Golden Gate Bridge was dubbed “an upside down rat trap that will mar the beauty of the bay” and the target of over 2,000 lawsuits. The State Water Project, UC System, and BART all passed by one vote. Imagine California without them?

2. One HSR project justification is congestion relief on “America’s busiest short haul aviation market” – Los Angeles (LAX) to San Francisco (SFO) where 25% of flights are delayed by at least an hour.

3. The project is part of a “statewide rail modernization plan” to connect Los Angeles and San Francisco in 2 hours and 40 minutes or less (Phase I) with extensions to San Diego and Sacramento (Phase II).

4. The project is funded through a combination of ARRA (American Recovery and Reinvestment Act) ($3.3 billion) and Prop 1A ($4.7 billion) funds that were signed into Law by Governor Jerry Brown in July 2012 (Senate Bill 1029). Additional Prop. 1A funds will go toward connectivity projects statewide ($819 million), Metrolink Modernization ($500 million), and Caltrain Corridor Modernization ($600 million).

5. According to CHSRA Central Valley Regional Director Diana Gomez, justifications for a Central Valley start include: (a) construction of the “backbone” to tie California’s major regions together, (b) the availability of Federal Funding, and (c) the capability of expediting the project “faster at a lower cost” as trains can be tested in this region at up to 250 MPH (although top operating speeds will be 220 MPH).

For more information go to www.hsr.ca.gov.
SB 286 High Occupancy Vehicle Lanes: Caltrans designates lanes for exclusive HOV-use either by occupancy through January 1, 2015; or through written authorization for low-emission, hybrid, or alternative fuel vehicles (via a DMV-administered identifier). SB 286 extends these provisions through: (a) January 1, 2019, (b) expiration of federal authorization, or (c) revised written re-authorization. SB 286 also authorizes DMV issuance of a valid transitional zero-emission vehicle (TZEV) identifier. Governor Brown has just signed SB 286 into Law.

SB 792 Regional Entities: Bay Area: The Metropolitan Transportation Commission (MTC), the Bay Area Toll Authority, the Bay Area Air Quality Management District, and the San Francisco Bay Conservation and Development Commission all have jurisdictional authorities within the nine-county Bay Area region. Regional transportation planning agencies develop Sustainable Communities Strategies (SCS’s) per SB 375. SB 792 requires: (a) the MTC to submit biannual SCS progress reports, (b) the Joint Policy committee to prepare a regional organization plan (RTP), (c) an impacted member agency to issue the RTP to its board by December 31, 2014, and to notify the Senate Transportation and Housing Committee on adoption and implementation by December 31, 2015.

AB 603 Design Build: Capitol Southeast Connector Project: The California Transportation Commission (CTC) establishes SOQ procedures for design/build procurement on certain projects. AB 603 extends these procedures to the Capitol Southeast Connector Joint Powers Authority on the Sacramento region’s Southeast Connector Project (between I-5/Florin-Perkins in Elk Grove and US 50/El Dorado Hills Blvd in El Dorado Hills). Under AB 603, the Department of Industrial Relations would be reimbursed for prevailing wage monitoring and enforcement tasks via funds deposited into the State Public Works Enforcement Fund.

AB 105 Active Transportation Program: AB 105 creates an "Active Transportation" Program within the California Transportation Agency (CTA) funded in the annual Budget Act from both federal and state sources. AB 105 allows 40% of certain funds for metropolitan planning organizations of: (a) greater than 200,000, (b) 10% for small urban and rural regions, and (c) 50% statewide. AB 105 requires the CTC to: (a) develop guidelines and procedures including project selection principles, and (b) approve 2-year programs of projects initially, with 4-year programs in subsequent years. AB 105 streamlines the Bicycle Transportation Account, the Bikeway Account, and the Safe Routes to School Program into this Active Transportation Program into a single program, while giving the CTC a 45-day window for submitting the draft guidelines to the Joint Legislative Budget Committee.

The ITE Cal Poly Pomona Student Chapter (ITECPP) participated in a Science Fair EXPO on October 5 co-hosted by San Bernardino County Superintendent of Schools and Riverside County Office of Education; featuring regional elementary, middle school, and high school students. The event included consultations, presentations, exhibitor booths, and workshops. ITECPP presented the civil engineering profession via a booth with structural and transportation engineering activities. The structural activity entailed constructing columns from 8.5" x 11" paper sheets to support loads of textbooks. The transportation activity entailed using a laptop computer to allocate red, yellow, and green times along a coordinated signal network to reduce congestion. Another highlight was a 45-minute PowerPoint presentation on the civil engineering profession followed by a 15-minute Q&A session. Participation was integral to fulfilling ITECPP’s mission of meeting mobility and safety needs through research, education, development, and public awareness. A female high school student remarked that “stacking textbooks on paper columns was mind-blowing,” encouraging her to reconsider a civil engineering major.

Feedback from ITECPP participants:
"I felt good about helping these students learn about what civil engineering is and seeing how interested and engaged some of the young kids were. So many of these kids have such a bright future and to be able to maybe spark an interest in engineering to any of them is priceless."
- Hector Salcedo

"Educating kids about engineering at the science fair was inspirational. It was truly amazing to see how engaged and involved the youth are with their education, and it was awesome to witness first hand their eagerness to learn about new things. It's evident to me that all the children we had the pleasure of meeting, have bright, successful futures."
- Mark Shisler

"I was astonished by how forthcoming and interested the kids were in what we had to say. The level of enthusiasm they showed was overwhelming and having the opportunity to inform individuals on the basics of engineering was a tremendous experience for me."
- Kevin Mach

Feedback from ITECPP participants:
"It was very interesting to see the full scope of one of the largest transportation improvement projects happening in Southern California right now." - Alex Nothnagel, USC Student

On October 30, 2013, seven students from the USC ITE Student Chapter visited the Los Angeles Metro I-405 Sepulveda Pass Widening Project Office and related construction sites. The I-405 Sepulveda Pass Improvement Project adds one northbound and one southbound 10-mile-long HOV lane, and improves supporting infrastructure. This project is aimed to reduce traffic congestion on the I-405, commuter time and air pollution. It will also improve links with state and regional transportation networks and provide rideshare incentives. This project is currently the largest budget design-build highway project in Southern California. The main contractor and designer is Kiewit. The project is scheduled to be completed by mid-2014.

Over lunch at the office, Michael A. Barbour, Executive Officer Highway Project Delivery, provided an informal presentation on the I-405 Improvement project. We were able to ask questions and learn more about the project and his career path. He discussed project accomplishments, milestones, construction challenges, advantages of design build, and the project timeline.

After lunch, we visited different construction sites and saw both completed and on-going portions of the construction. This included the new sound walls, bridges, ramps, a storm water prevention structure, etc.

"I think this field trip was a real eye-opening experience because although I worked and visited a lot of construction sites in China, it's the first time that I saw a design-build project. I am very happy that I was able to see such a big project during construction." - Xiao Bao, USC Student

We received great feedback from our members. We hope to be able to provide more opportunities for our students to learn and visit different transportation related projects. We would like to thank Michael Barbouer for giving us the tour; Tanya Tuley, his Executive Assistant, for setting up the field trip; and Metro for providing us this wonderful opportunity to learn more about the I-405 Improvement Project. We are always looking for more speakers and field trip opportunities for our members. If you or your company is interested in supporting us, please send us an email to iteusc@gmail.com. Thank you!

Starting the school year off with a bang, UCLA ITE organized an exciting airfield side bus tour of LAX on Friday, October 25. Because we knew this is a unique opportunity that other ITE Chapters in the area would be interested in, we invited other Chapters in the SoCal area to attend the tour with us. Cal Poly Pomona’s ITE Chapter jumped at the chance, and the group soon reached capacity, with tens more on waitlist.

The group was composed mostly of UCLA and Cal Poly Pomona’s undergraduate and graduate students. Surprisingly, not only Civil Engineering students signed up, but we also had plenty of other Engineering disciplines, Urban Planners, and even one Geography major come along with us for the ride.

We piled in the bus a little after noon, and Maurice Gooden, the Airside Operations Manager, quickly took command of the bus full of college students. The vehicle soon was filled with oohs and aahs as Mr. Gooden explained to us the purpose of markings and antennae on the airfield, shared some funny stories of seafood falling out of trucks, and taught us the purpose and history of buildings, people, and rules that we would never have known despite always flying out of LAX.

In that one-hour tour, our minds were packed with new knowledge and appreciation for LAX and the people who make this huge operation possible daily. UCLA ITE and Cal Poly Pomona ITE became closer together as we made many new friends, and we hope to hold more events like this in the future with fellow SoCal student chapters. Please contact us at iteucal@gmail.com for more information on how you and your company can help the future Transportation Engineers in UCLA ITE through donations, office and technical tours, or guest speaking.
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HOLIDAY MIXER

December 10
6:00 p.m. to 9:00 p.m.

Los Coyotes Country Club
8888 Los Coyotes Drive
Buena Park, California

All members and guests welcome!

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Highway Safety Manual

The HSM provides techniques and methodologies to quantify the safety-related effects of transportation decisions, similar to how the Highway Capacity Manual (HCM) quantifies operational impacts. The HSM facilitates roadway planning, design, operations, and maintenance decisions based on consideration of their safety impacts. The primary purpose of the HSM is the introduction and development of analytical tools for predicting the impact of transportation project and program decisions on road safety. Benefits to using the HSM include improved decision making and more effective countermeasure selection to reduce the number and severity of crashes, as well as cost savings. The target audience of the HSM is any transportation professional, including State and local transportation agency personnel, engineering consultants, etc.

The HSM is divided into four parts:
- Part C: Predictive Method.
- Part D: Crash Modification Factors.

There are three primary categories of data that are required for the HSM: crash data, roadway characteristics data, and traffic data. More information on the HSM can be found at http://www.highwaysafetymanual.org/Pages/default.aspx.

SafetyAnalyst

SafetyAnalyst is a software implementation of Part B of the HSM. It is a stand-alone set of software tools used to identify and manage a system-wide program of site-specific highway safety issues and recommended improvements. It uses state-of-the-art safety management approaches and incorporates a cost-effective analysis to help guide the decision-making process to identify specific safety improvements that involve physical modifications of the highway system. SafetyAnalyst is beneficial in helping highway agencies to get the most safety benefit from each dollar spent on a project. The software includes six different tools: Network Screening, Diagnosis, Countermeasure Selection, Economic Appraisal, Priority Ranking, and Countermeasure Evaluation.

The minimum set of data elements required to use SafetyAnalyst includes the following: roadway segment characteristics, intersection characteristics, ramp characteristics, exposure data, and crash data. More information on SafetyAnalyst can be found at http://www.safetyanalyst.org/.

Interactive Highway Safety Design Model

The IHSDM is a stand-alone collection of software analysis tools used to evaluate the safety and operational effects of geometric designs on highways and implements Part C of the HSM. The IHSDM is a decision-support tool that gives explicit, quantitative evaluations on existing and proposed geometric designs. The intended users of the tool include highway project managers, designers, and traffic and safety reviewers in State and local highway agencies, and consulting firms. There are six evaluation modules: Policy Review, Crash Prediction, Design Consistency, Intersection Review, Traffic Analysis, and Driver/Vehicle. The Crash Prediction Module estimates the frequency and severity of crashes that can be expected on a roadway based on geometric and traffic conditions. This model can evaluate rural two-lane highways, rural multilane highways, and urban and suburban arterials. The benefits of the IHSDM are that the results not only help users to make decisions to improve the safety performance of their roadways, but the results also justify and defend geometric design decisions.

Data requirements to use the IHSDM include roadway, traffic, and crash data. Specific data requirements will depend on which safety module is used. See: http://www.fhwa.dot.gov/research/tfhrc/projects/safety/comprehensive/ihsdm/index.cfm

For further information on any items above, contact David Cohen at the FHWA Calif. Division Office: David.Cohen22@dot.gov.