President’s Message
By Mark Spencer, P.E., ITE Western District President

There’s a feeling I get when I look to the west. And in the ITE Western District it’s pretty good! But it makes me wonder, how can we do better? This year I am focused on engagement with our members and ways of increasing our levels of engagement, whether it’s how the Board interacts with the Sections and Chapters, or how members engage with one another.

Recently each of you received a survey in your e-mail, asking you to answer a few short questions about professional conferences. We know there are many choices, so how does one choose? Is the decision driven by training and technical content, location, cost, employer support, networking opportunities, a combination of these or perhaps something else? Our mission as the Western District Board is to serve the membership. We want to hear from you to know what works and what doesn’t, and what you’d like to see. The Western District Annual Meeting is our largest event of the year. So why don’t we see more of you attending our Annual Meeting each summer? Please take the survey and share your thoughts. And if the survey doesn’t quite tap into your ideas then send me an e-mail or pick up the phone. In June 2017 the Western District Annual Meeting will be in San Diego; I hope to see many of you there, especially newer members that haven’t attended a District Meeting before as well as those that haven’t recently attended an Annual Meeting.

In today’s world our membership is more diverse than ever, and thus we must provide multiple platforms to engage with one another. In the Western District we provide many engaging paths you can go by. These include: social media such as Twitter and Facebook; electronic media such as the E-News, the ITE International Community, and our website westernite.org; and traditional media with our bi-annual printed editions of WesternITE.

Whether you prefer print, desktop, or mobile media, there is no substitution for meeting people in person. Since our Annual Meeting in Albuquerque I have attended Section meetings in San Francisco, Northern California and Arizona, the Idaho Chapter Annual Conference, and visited with Student Chapters at Boise State, the University of Arizona, and Cal Poly SLO. As I wind on down the road of the Western District, here is what I can report - our Sections, Chapters and Students are leading the way to a bright future, and Together We Are The Best!
Thank You for Attending the 2016 Western District Annual Meeting!

The 2016 Local Arrangements Committee and the Western District Board would like to thank everyone who attended the Western District Annual Meeting in Albuquerque, New Mexico. Your participation is what made this meeting a success. We had 400 total attendees including 300 full conference registrants and nearly 90 students. We had a great buzz in the Vendor Hall with 28 exhibitors. Thanks to all who helped make this meeting a wonderful learning and networking experience.

And a big thanks once more to our meeting sponsors:

I hope everyone enjoyed themselves as much as we enjoyed hosting this meeting. For more information about PDHs or to provide feedback/comments, please visit the conference website: www.ite2016abq.com. We look forward to seeing you all at future Western District Meetings!

Jim Barrera
2016 Annual Meeting LAC Co-Chair

Save the Date for the 2017 Annual Meeting in San Diego!

June 18-21, 2017
Hilton Resort and Spa on Mission Bay
San Diego, California

www.sandiegoite2017.com

SAVE THE DATE!!
Annual Meeting Best Paper

Roads, Rails, and Running Shoes: Developing Multi-modal Signal Timing for a New Light Rail Corridor in Aurora, Colorado

By Victoria Edington, E.I.T. (Stantec) and W. Freddy He, Ph.D., P.E., PTOE (Stantec)

The District’s Annual Meeting Best Paper Award is one of the most prestigious presented each year. The award-winning paper is presented here:

INTRODUCTION

RTD’s expansive FasTracks program in Metro Denver is in the middle of a banner year, with four new commuter rail or light rail lines opening in 2016. The Aurora Line/I-225 Rail, located on the eastern edge of the system, is currently under construction and is expected to open in Winter 2016. This new light rail line generally parallels I-225 from I-25 on the south end to I-70 on the north end through the City of Aurora. It will provide a critical link for residents in the area to access the commuter rail line between Union Station in downtown Denver and Denver International Airport via the shared light rail / commuter rail station at Peoria Street.

The complete project area includes 10.5-miles of new track and 19 at-grade crossings in some of the busiest areas of Aurora. The scope for this retiming project includes evaluation of 15 of these at-grade crossings, which are divided into three distinct subareas, known as Area B: Aurora City Center, Area E: Fitzsimons, and Area G: Peoria. All three of these subareas consistently see heavy vehicular, cyclist, and pedestrian traffic throughout the week due to their proximity to some of the principal arterials and destinations in Aurora. The new timing plans for the signalized intersections abutting the new route are therefore aimed at serving all modes as efficiently as possible to avoid delays to trains, drivers, pedestrians, and cyclists.

Within each subarea, certain additional signals not immediately adjacent to the tracks were also chosen to be included in the retiming process based on their distance from the light rail and the City of Aurora’s established coordination corridors. Area B, which encompasses the Town Center at Aurora and Aurora City Place shopping centers, is comprised of ten at-grade crossings and six additional signals along Alameda Avenue.

2016 Annual Board Meeting Highlights

By Dongho Chang, P.E., ITE Western District Vice President

On July 10, 2016, Western District Board members, committee chairs, section leaders and guests met at the Hotel Albuquerque in Albuquerque, New Mexico, for the ITE Western District 2016 Annual Board Meeting.

President Cathy Leong noted her travels included visiting several sections in southern and northern California, the Mid-Year Board meeting in Ontario, the Student Leadership Summit at Cal Poly Pomona, and the Intermountain Section Meeting in Jackson, WY. Cathy highlighted ITE International’s guidance regarding tax exempt status for Districts and Sections and their request that all Sections and Chapters file taxes this year.

Vice President Mark Spencer provided highlights of his written report, including awards, committee travel budget and the leadership directory update. Mark reported that we have a new tax accountant who is located near our District Administrator.

Secretary-Treasurer Dongho Chang reported the District’s year-to-date income (for the period of October 2015– June 2016). Notable surpluses from the Las Vegas meeting and WesternITE advertising resulted in year-to-date income of $ 98,775.10. Year-to-date expenses totaled $55,106.11. The current assets of the District are $260,255.59 as of July 9, 2016.

Past President Carlos Ortiz provided a summary of the Lifetime and Individual Achievement Awards.

The District’s three International Directors, Jennifer Rosales, Alyssa Rodriguez, and Walter Okitsu provided summaries of their recent activities.

District Administrator Dalene Whitlock provided the status of the District Bylaws revisions, which, if approved, will take effect 30 days after they are filed with the Institute.

WesternITE Managing Editor Joey Paskey highlighted WesternITE publications and reminded everyone to send content for the monthly e-news and two printed WesternITE editions.

WesternITE Advertising Manager Robert Sweeting provided a summary of his report and that total advertising revenue is expected to meet budget.

Website Manager Justin Link provided a synopsis of his written report. Justin reported on the photo contest for the ITE Western District website and the response to the contest has been positive.

Membership Chair Joe De La Garza reported that total voting members have decreased by about three percent. He provided a breakdown of the membership totals and membership types.

Richard T. Romer Student Endowment Fund Committee Chair Kimberly Leung announced that the Endowment Fund balance was over $475,000.

Honolulu was selected as the location for the 2020 Annual Meeting after a joint presentation by the Hawaii and Southern California Sections. The venue will be in Waikiki on the island of Oahu.

Albuquerque 2016 LAC Co-Chair Jim Barrera said he expects excess revenue from the 2016 Annual Meeting. There were 82 registered students, 400 total attendees, 300 full registrations, and 23 vendors in Albuquerque.

San Diego 2017 LAC Chair Joe de la Garza indicated that the meeting dates are June 18-21,
The meeting was adjourned.

Director Karen Aspelin Chang, Secretary-Treasurer Neelam Dorman, and the 2016 election:

The final order of business was the announcement of the winners of the 2016-2017. The budget was approved by the membership.

Secretary-Treasurer Dongho Chang of Honolulu, Hawaii.

of the 2020 Western District Annual Meeting has been selected as the Fund is close to achieving $500,000. She announced that the location of the 2016 Annual Business Meeting Highlights (continued from page 3)

2017, and the location will be the Hilton San Diego Resort near Sea World and other major attractions.

Keystone 2018 LAC Chair Ben Waldman provided a summary of the LAC activities to date, including signing of the contract, and the latest details for hosting a joint meeting with the Texas District (TexITE).

Monterey 2019 LAC Chair Justin Link provided a summary of the LAC activities to date.

Other items of note included a report on the LAC Handbook and a presentation by the 2017 Student Leadership Summit team from Cal State Fullerton to be held January 13-15, 2017.

The meeting adjourned at 4:30 pm. The next board meeting will be held on January 27, 2017 in Oakland, CA.

2016 Annual Business Meeting Highlights

By Dongho Chang, P.E., ITE Western District Vice President

The 2016 Annual Business Meeting for ITE's Western District was called to order on Tuesday, July 12th by President Cathy Leong. The meeting commenced with the Pledge of Allegiance and a moment of silence for deceased members David Capelle, Angie Louie, James MacIssac, David Roper, Richard C. Thomas, Lawrence Wherry, and Robert Wortman.

Awards were presented by the Student Initiatives Committee, Student Endowment Fund Committee, Technical Committee, and Career Guidance Committee.

The final call for ballots was followed by the convening of the tellers committee by President Cathy Leong. The Tellers Committee was headed by District Administrator Dalene Whitlock and also included Erik Zandlvi and Anthony Henderson.

Western District President Cathy Leong addressed the membership and provided a quick recap of the past year's highlights. Some of the highlights included establishing the District's Articles of Incorporation, revisions to the District's Bylaws, creating a career guidance track at the Annual Meeting, and funding of the Leadership ITE scholarship annually in the budget. President Leong noted that the Student Endowment Fund is close to achieving $500,000. She announced that the location of the 2020 Western District Annual Meeting has been selected as Honolulu, Hawaii.

Secretary-Treasurer Dongho Chang summarized the state of the District's accounts for 2015-2016 and introduced the draft budget for FY 2016-2017. The budget was approved by the membership.

The final order of business was the announcement of the winners of the 2016 election: President Mark Spencer, Vice President Dongho Chang, Secretary-Treasurer Neelam Dorman, and International Director Karen Aspelin.

The meeting was adjourned.

Call for Candidates

The Western District Board is seeking nominations of qualified candidates for Secretary-Treasurer and International Director to run in the July 2017 election. Secretary-Treasurer nominations will be accepted for individuals residing outside California, while International Director nominations are sought for individuals residing in California. Anyone who would like to submit a nominee for consideration, or who would like more information about the election process, should contact Western District Past President Cathy Leong at cleong@wilsonokamoto.com. Nominations will be accepted until December 1, 2016.

Western District Committee Updates

The following are updates from the Western District committees:

Legislative Committee

By Tom Mericle, P.E., T.E., MPA, Legislative Committee Chair

Well, another legislative year is done. This was an even numbered year so Montana and Nevada did not have a legislative session, whereas all of the other states did. Most states finished their legislative sessions by the end of the spring except Alaska (who ended in July) and California (who ended in August).

A complete update on relevant legislation that was approved is listed on the WesternITE website at http://westernite.org/news/legislation/. Please visit the site to see what is happening in your state.

If you have any state legislative activity that you want Western District ITE to follow up on please let the Western District Legislative Committee Chair, Tom Mericle, know. He can be reached at (805) 654-7774 or at tmericle@cityofventura.net.

Local Arrangements

By Randy McCourt, P.E., PTOE, Local Arrangement Committee Liaison

The Future of Western District Annual Meetings

In this coming year we will be talking about how we can make the Western District Annual Meeting a better experience for all of our members. Our meetings attract 10 to 15% of our district members annually and rotate around the west providing networking and professional development opportunities for our members. It has become a growing platform for attracting students into our profession and now giving us a chance to shape the best customer experience for you all. It has become more and more complex to balance venue, pricing and content, particularly as hotels are highly focused on revenue recovery. The Western District
Area E borders the Anschutz Medical Campus/Fitzsimons Redevelopment Area and includes two at-grade crossings as well as three other signals, including the I-225 interchange at 17th Place. Area G includes three at-grade crossings and three additional signals, all on Peoria Street at the north end of the project area.

![Figure 1 - Aurora Line Signal Retiming Project Area and Subareas](image)

In this map, at-grade crossings (whether at signalized or unsignalized intersections) are marked with crossbucks. Additional signals that were included in the retiming scope for coordination purposes are marked with signal heads.

The City of Aurora currently maintains timing plans for five different times of day. These include the standard AM Peak and PM Peak periods, as well as Weekday Off-Peak, including the middle of the day and the late evening; Weekend, all day on Saturdays and Sundays; and Overnight, seven days a week. Almost all signals in Aurora are free-running during the Overnight plan. Because trains on the Aurora Line are expected to operate from early morning until after midnight every day, all five of the signal timing plans for each intersection, not just those for the peak hours, need to be designed to work in conjunction with the light rail operations.

**INITIAL MODEL DEVELOPMENT:**

**PEAK HOURS**

The first step in developing signal timing plans for the different areas was to determine parameters such as the level of priority that could be granted to the trains at each crossing, the types of priority that could be used, and the locations where trains could or could not be permitted to stop outside of stations. RTD, City of Aurora, and PUC staff worked together to establish a preliminary concept of operations for each of the three areas, outlining on paper how trains were expected to travel through each segment.

Due to concerns from the City over potential impacts to existing signal coordination and traffic operations, the initial concept of operations designated Transit Signal Priority (TSP) to be used at most of the signalized crossings. The closely spaced crossings in Area B along Sable Boulevard, from Alameda Avenue to Ellsworth Avenue, were elected to be “linked” together using TSP to minimize disturbance to the non-train traffic at each intersection. This strategy called for trains to wait at holding signals on either end of the segment until being released at the appropriate time to cross Alameda Avenue concurrently with the northbound and southbound traffic on Sable Boulevard. Timeline diagrams were created using Synchro and Excel to show how the traffic signal phasing, necessary track clearances, and gate operations at the linked crossings would overlap so that, once released from the holding signals at either end, trains could pass through the entire section without stopping. The crossings in Area E and in Area G were also linked together in this way, each with their own timelines outlining how train and traffic operations would interact.

The installation of the Aurora Line is anticipated to substantially increase pedestrian and cyclist activity in areas that already see frequent foot traffic. As such, City of Aurora and RTD staff agreed to accommodate pedestrian crossing times within the regular cycle length at almost every signal. This helped to ensure there will be good progression for drivers and trains along these corridors, without disruption to the coordinated operations.
every time a side street pedestrian phase is called. The possible cycle lengths that could therefore be considered for implementation were increased because many of these intersections have long crossing distances and thus long pedestrian phases. Additionally, the project team agreed not to allow skipping of any pedestrian phases in the TSP settings, in order to curtail potential unsafe pedestrian or cyclist crossings due to skipped phases during train operations.

With these considerations in place, the functionality of the proposed concept of operations could be tested using PTV Vissim micro-simulation software. Initial timing plans for the AM and PM peak hours, designed for non-train traffic in Synchro, were input into Vissim models of the anticipated Opening Day 2016 conditions for each area and then amended for train operations as needed. Vissim was selected as the software of choice for this process because, while still only approximating real-world conditions, it could model train operations in a multi-modal environment—with automobiles, pedestrians, and cyclists—much better than Synchro alone. The ability to create videos of the simulation meant that the project team could observe signal operations in real time, rather than simply relying on reported results to verify the effectiveness of the concept of operations.

**Operational Refinement: Bench Testing**

As the Aurora Line will be operating in some of the most active regions of Aurora, there justifiably have been some concerns about the efficiency of field testing once the tracks are completed and trains begin running regularly later this year. While field testing is unquestionably necessary, City of Aurora, RTD, and PUC staff are keen to make the procedure work as smoothly as possible for all parties involved.

To that end, the City, RTD, and PUC staff have employed an additional step known as “bench testing” as a key required element to further the line construction. This innovative technique acts as an intermediate stage between pure computer simulations and full field operations. The City of Aurora routinely uses this process before installing new or improved signal technology in the field. With help from Kiewit, the design-build contractor for the Aurora Line, and Mass Electric Construction Co. (MEC), the project team has been able to create a much more elaborate bench test than usual. The actual signal controllers that will be installed for the traffic and train signals along the Aurora Line have been set up in a controlled environment off-site and connected to a series of light boards that can display signal states for each intersection in real time. An external computer simulation transmits detailed information relating to the trains, such as location, speed, headways, and travel times, while the controllers respond and change the light boards accordingly to represent actual signal operations. This process allows the traffic and train operations to be observed in a more accurate reproduction of reality than in Vissim, but without the safety risks that can arise unexpectedly during field testing, and with the ability to make changes to the timing inputs much more responsively than in the field.

**Figure 2 – Vissim Simulation**

This screenshot, captured during a simulation run of the Area B PM Peak Vissim model, shows two trains crossing Alameda Avenue in parallel with the vehicles on northbound and southbound Sable Avenue. The linked crossings at the Commercial Access and Bayaud Avenue are visible in the background.

**Figure 3 – Area B Bench Test**

The first part of bench testing for Area B focused on the five crossings between the Florida and Aurora Metro Center stations. The light boards for each crossing are each hooked up to a separate signal controller, while the screen at the bottom displays the status of trains during each test.

By utilizing bench testing, the timing parameters for the AM and PM peak hours were able to be transferred into the signal controllers and observed in real time, well before field installation. As a result, certain shortcomings that were not previously discernible within the limited capabilities of the Vissim models were brought to light.

Fortunately, the bench testing process allows such adjustments to be identified and tested without major impacts to the project schedule. For instance, three of the signals on Exposition Avenue in Area B, which had been coordinated with trains given partial TSP in the preliminary concept of operations, were found to operate more effectively for all modes when fully actuated with full priority allotted to the trains. The proposed “linked” sections in all three areas were similarly revised, with some of the previously interconnected signals changing to full TSP or even preemption to help reduce delays. Two of the busiest crossings retained the original concept, with trains being released from holding signals at the appropriate times to cross with the parallel vehicle phases without disrupting the signal timing—Alameda Avenue & Sable Boulevard (Area B) and Peoria Street & 33rd Avenue (Area G). Without bench testing, modifications such as these would have taken much more time and effort in the field to isolate and implement. With the results of the bench tests in hand, field installation and testing later this year should be a more efficient process.

**Fine-Tuning: Off-Peak Hours**

Once the concept of operations was refined in the bench test for the peak hours, Stantec could proceed with creating plans for the off-peak periods. Developing optimized Weekday Off-Peak, Weekend, and Overnight timing plans for each of the three subareas is essential to ensuring acceptable service for all modes at all times of day.
After all of the effort that was put into the AM and PM peak hour timing plans, the interactions between non-train traffic and trains did not require any further investigation for the three off-peak periods. As such, the timing plans could be developed now using Synchro, rather than returning to Vissim. Without the need to focus on parameters relating to train operations, Synchro was the more effective tool to optimize the timing and offsets of each area.

In order to create the best possible timing plans for the off-peak hours, accurate volume projections were necessary. The City of Aurora and RTD provided existing 2008 and 2012 traffic counts, but there were some significant gaps in the available weekday off-peak and weekend data. In order to fill in these gaps and forecast the necessary weekday off-peak and weekend volumes for Opening Day 2016, Stantec compared the AM and PM volumes, which were available for every intersection in the scope, to those few intersections where weekday off-peak and weekend counts had been collected in 2008. The resulting ratios allowed volumes for the rest of the intersections to be estimated for 2008 and then projected using the established growth rates into 2016. The final projected volumes were balanced and then entered into Synchro to produce the optimal Weekday Off-Peak and Weekend timing plans.

For the overnight period, even less data was readily available – only a series of 24-hour tube counts gathered at a few of the busier intersections in 2012; turning movement counts were not available at all. Because all of the signals within the scope of this project are meant to run free, i.e., non-coordinated, and fully-actuated in the Overnight timing plan, and only a simple assessment of the existing volumedensity controls was required, Stantec determined that detailed turning movement projections were not necessary. Instead, efforts focused on estimating maximum link volumes for each approach at each intersection based on the available 24-hour tube counts. A similar comparison between the measured overnight link volumes and back-calculated AM peak hour link volumes was established to estimate approach link volumes for all intersections without existing overnight data. After projecting these new overnight link volumes into 2016, they were compared to the projected weekday off-peak values. In every case, the overnight volumes were found to be close to or below the weekday off-peak numbers. Stantec determined that the basic timing parameters used for the Weekday Off-Peak plans would suffice to control traffic in the free-running Overnight plans as well.

**NEXT STEPS**

Now that the preliminary timing plans for all times of day have been completed, RTD, Kiewit, the City, and PUC staff will proceed with more bench testing. Each timing plan will be assessed and refined to attempt to work out as many bugs as possible in a controlled setting. While additional fine tuning will still occur when field testing begins in the next few months, overall, the process should be faster and smoother thanks to all the work that has already been completed. If all goes according to plan, the Aurora Line will be ready to operate on time!

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**Western District Committee Updates**

The Student Endowment Fund has delivered very cost effective meetings in the past and we are committed to them in the future - this coming year in San Diego, in 2018 in Keystone, Colorado together with the Texas District, followed by 2019 in Monterey, California and 2020 in Honolulu, Hawaii. Our local sections are doing their best to produce the best program for you annually. That is where you all can help us. We are looking to expand the depth and content of our technical programs. All ideas are on table and, for those who have attended recent meetings, we are testing different formats. If you have interest in the technical programs of our annual meetings and have ideas, please feel free at any time to contact me to share your thoughts and ideas and we can see what we can do to advance them into the future (randy.mccourt@dksasssociates.com). We look forward to sharing ideas with you all in San Diego this year.

**Public Relations**

The Western District Board is pleased to welcome our new **Public Relations Committee Chair, Paul Stanis.** We look forward to hearing more from Paul about his vision for this committee in the upcoming months. Contact Paul at paul.stanis@sfmita.com if you have any comments, ideas, or want to volunteer.

**Richard T. Romer Student Endowment Fund Update**

By Kimberly Leung, Richard T. Romer Student Endowment Fund Committee Chair

The Student Endowment Fund has officially closed the gap and reached its $500,000 goal! Thank you to the support of our leaders and members at the District, Section, and Chapter levels to get us to this point. Hear more about this achievement and the next steps for the Endowment Fund from **Past President Cathy Leong** and **President Mark Spencer** in the SEF November/December Spotlight at www.westernite.org.

The Student Endowment Fund was founded in 2004 to provide a stable source of funding for the District’s Student Initiatives Program with the goal of eventually accruing $500,000. Each year, over $15,000, paid from the Endowment Fund is spent on student initiatives with the objective of attracting, supporting, and retaining the best and brightest to the transportation profession in the west.

**Student Initiatives**

By Danielle Scharf, P.E., PTOE, LEED AP, Student Initiatives Committee Chair

The following report provides a summary of the 2016 ITE Western District student award winners.

**Student Chapter Award**

The purpose of the Student Chapter Award is to recognize student chapters that have shown outstanding accomplishments and activities. This year we received annual reports from 23 student chapters and the winner was Cal Poly San Luis Obispo. They were recognized at the annual meeting with a plaque and a check for $1000. Congratulations
to Cal Poly SLO on being selected for this award three years in a row! Receiving honorable mention for the Student Chapter Award this year were Oregon State University and University of Utah.

Student Paper Award

The purpose of the Student Paper Award is to encourage student members of the District to conduct and report on independent research and investigation of transportation engineering subjects and to provide a means for recognizing outstanding accomplishment in this area. This year we received 11 papers that were reviewed by a committee of 3 judges from across the District. The winner was Monirehalsadat (Monireh) Mahmoudi from Arizona State University for her paper entitled “Toward a City with Fully Coordinated Vehicle Sharing System.” Monireh received a plaque and a $500 award at the annual meeting.

Student Traffic Bowl

The student traffic bowl was held at the annual meeting in Albuquerque with 10 different student chapters participating. The top 3 teams were:

1st Place: Cal Poly San Luis Obispo
2nd Place: Oregon State University
3rd Place: Oregon Institute of Technology

Cal Poly SLO received the Western District student traffic bowl traveling trophy and $1000 from the Western District for travel assistance to participate in the Collegiate Traffic Bowl Grand Championship in Anaheim, CA. Cal Poly SLO represented the District very well and took second place in the final round, losing to Purdue University by just one point!

James H. Kell RFP

The James H. Kell Student Competition is intended to give student members attending the annual meeting an opportunity to apply transportation and traffic engineering classroom knowledge to a specific “real-world” problem. The competition also gives students the chance to meet and interact with students from other schools. The District issues a request for proposals inviting the student chapters to define and run the student competition at the annual meeting. The winning student chapter is awarded $1,500 to cover material costs and help defray travel expenses. The winner of the RFP process this year was Cal Poly San Luis Obispo for their “Wayfinder” challenge. Over 70 students from across the District participated in the event.

Outstanding Student Awards

The purpose of these awards is to recognize both an undergraduate and graduate student that have shown exceptional dedication to the transportation profession, extraordinary enthusiasm for ITE and unwavering professionalism in transportation research or an intern position. Our winners this year were recognized at the annual meeting with a plaque and a check for $500. The 2016 winners included Ashley Kim as the Outstanding Undergraduate Student and Kevin Carstens as the Outstanding Graduate Student, both from Cal Poly San Luis Obispo.

Outstanding Educator

The purpose of the Outstanding Educator award is to recognize an educator who has shown extraordinary creativity in teaching, taken exceptional measures to spark student interest in the transportation profession, provided unwavering encouragement for student endeavors or shown unequalled service to ITE. The District received three nominations for the 2016 award and the winner was Dr. Kevin Chang from the University of Idaho. Congratulations Dr. Chang on this well-deserved recognition!

Student Chapter Annual Meeting Award

This is a new student chapter award that was started two years ago at the joint annual meeting with the Mid-Western District and is now an annual award with a traveling trophy. The purpose of the award is to recognize overall participation by a student chapter in all of the annual meeting activities. The winner of the Student Chapter Annual Meeting Award for 2016 was Cal Poly San Luis Obispo.

The Student Initiatives Committee is currently seeking volunteers to serve on the review committees for the various student and faculty awards for the coming year. If you are interested in volunteering, or would simply like more information about these awards and activities, please contact Danielle Scharf, Student Initiatives Chair at dscharf@sandersonstewart.com.

Section and Chapter Reports

The Sections and Chapters of the Western District are busy! Highlights of their activities are provided below:

Arizona Section
(Report provided by John Kissinginger and David Lucas)

- Current officers are John Kissinginger, Past President; Alejandro Angel, President; David Lucas, Vice President; Vinay Vanapalli, Secretary; and April Wire, Treasurer.
- Jamal Rahimi, City Traffic Engineer with the City of Peoria, was awarded the title of Life Member and presented with a certificate of recognition at the September Business Luncheon.
- Continuing our chapter’s efforts at increasing student outreach and support, the Arizona Chapter initiated a new award this past year that recognizes an Arizona student who has demonstrated outstanding leadership skills throughout his/her student career. The award is the Jenny Grote Student Leadership Award, named in honor of Jenny Grote, who has been involved in ITE at every level during the past 29 years and who has been a major contributor to the success of the Arizona Section. There were 5 applicants for this honor and the inaugural award went to Andisheh Ranjabari, a doctoral student in Civil Engineering at the University of Arizona and Past President of the UA ITE Student Chapter.
- Monirehalsadat Mohmoudi, a graduate student in Civil Engineering at Arizona State University, was the winner of the 2016 Western District Student Paper Competition. She received her award at the ITE Western District Annual Meeting in Albuquerque, NM in July.
- The Arizona Section had another robust year of well-attended meeting presentations and webinars and continued its transition to a year-round schedule with the addition of a three-part Summer Breakfast Series. Topics addressed in our events included Ethics, Complete Streets, ADOT Freeway Improvements, Valley Metro LRT Operations & Maintenance, I-11 EIS, Transportation Network Companies, Connected Vehicles and Automated Vehicles.

(continued on page 11)
MiteY Race Update

By Cathy Leong, P.E., MiteY Race Coordinator

Thank you to all of the teams that participated in the MiteY Race at the recent Western District Annual Meeting in Albuquerque, NM! We kicked off the meeting on Saturday with the 6th installment of the race with 6 family/friends and 6 student teams completing fun, but challenging tasks near Old Town in Albuquerque. The top family & friends teams were:

1st Place: MiteY Minions – Mark and Alex Spencer
2nd Place: ENGNRU – Leslie Romero, Hiram Crook, Melinna Boyd, and Myra Candelaria
3rd Place: Kickin' Aspelins – Karen, Erik, Klara, and Neil Aspelin

The top student teams were:

1st Place: Bear Transit – Adrian Diaz de Rivera and Andy Guan from UC Berkeley
2nd Place: Simonica – Monica Fiedler-Ross and Simon Qin from Cal Poly SLO
3rd Place: SLO Bears – Chris Chin from UC Berkeley and Bobby Sidhu from Cal Poly SLO

In addition to the Albuquerque MiteY Race, this was the first year that a MiteY Race was held in conjunction with an ITE International Annual Meeting. The Anaheim MiteY Race was held on August 16th as a part of ITE Game Night. We had 9 family/friends and 8 student teams racing through pit stops located in and around the Anaheim Marriott. The 1st place family & friends team was the Old Boardies Club…Paula Benway, Shawn Leight, Zaki Mustafa, Rock Miller, and Bruce Belmore. The 1st place student team was from the University of Minnesota…Benjamin Nault-Maurer and Jackie Nowak. We were so pleased to be able to share this Western District tradition with the rest of ITE!
## 2016 Annual Meeting Award Winners

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<tr>
<th>Title</th>
<th>2016 Awardee</th>
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<tr>
<td>EF Contributor Recognition</td>
<td>Tim Harpst, Dongho Chang, Tom Mericle, Rock Miller, Walter Okitsu, Jennifer Rosales, Edward Stafford, Intermountain Section, Southern CA Section, SF Bay Area Section</td>
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<td><strong>Endowment Fund</strong></td>
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<td>Highest Contribution per Member Award</td>
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<td>Riverside-San Bernardino Section</td>
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<tr>
<td><strong>Wayne T. Van Wagoner Award</strong> (for best paper by a Western District member published in ITE Journal in prior calendar year)</td>
<td>“Emerging Methods of Signal Timing Optimization,” Jamie Mackey</td>
</tr>
<tr>
<td>Employer Recognition Award</td>
<td>Wilson Okamoto Corporation</td>
</tr>
<tr>
<td>Student Chapter Award Winner</td>
<td>Cal Poly San Luis Obispo</td>
</tr>
<tr>
<td><strong>Student Chapter Award</strong></td>
<td></td>
</tr>
<tr>
<td>Honorable Mention</td>
<td>Oregon State University</td>
</tr>
<tr>
<td>Honorable Mention</td>
<td>University of Utah</td>
</tr>
<tr>
<td>Student Paper Competition</td>
<td>“Toward a City with Fully Coordinated Vehicle Sharing System,” Monirehalsadat Mohmoudi, Arizona State University</td>
</tr>
<tr>
<td>Outstanding Undergraduate Student</td>
<td>Ashley Kim, California Polytechnic State University, San Luis Obispo</td>
</tr>
<tr>
<td>Outstanding Graduate Student Award</td>
<td>Kevin Carstens, California Polytechnic State University, San Luis Obispo</td>
</tr>
<tr>
<td>Outstanding Transportation Educator</td>
<td>Dr. Kevin Chang, University of Idaho</td>
</tr>
<tr>
<td>Young Professional Achievement Award</td>
<td>Devin Moore</td>
</tr>
<tr>
<td>Individual Achievement Award</td>
<td>Erik Ruehr</td>
</tr>
<tr>
<td>Lifetime Achievement Award</td>
<td>Steven B. Colman</td>
</tr>
<tr>
<td>Annual Meeting Best Paper Award</td>
<td>“Roads, Rails, and Running Shoes: Developing Multi-Modal Signal Timing For A New Light Rail Corridor In Aurora, Colorado,” Victoria Edington</td>
</tr>
<tr>
<td>Annual Meeting Best Paper by a Young Professional Award</td>
<td>“Analysis of Bluetooth and WiFi Technology to Measure Wait Times of Personal Vehicles at Arizona-Mexico Ports of Entry,” Yung Koprowski</td>
</tr>
<tr>
<td>William C. Kloos Traffic Bowl 1st Place</td>
<td>Chile Dogs (AZ/NV)</td>
</tr>
<tr>
<td>William C. Kloos Traffic Bowl 2nd Place</td>
<td>Colorado</td>
</tr>
<tr>
<td>William C. Kloos Traffic Bowl 3rd Place</td>
<td>San Diego LAC</td>
</tr>
<tr>
<td>Best Web Site Award</td>
<td>Intermountain Section</td>
</tr>
<tr>
<td>Student Chapter Web Site Award Winner</td>
<td>California Polytechnic State University, San Luis Obispo</td>
</tr>
<tr>
<td>Student Chapter Web Site Award Honorable Mention</td>
<td>California State Polytechnic University, Pomona</td>
</tr>
<tr>
<td>Wisest and Windiest Scribe Award</td>
<td>Arizona Section</td>
</tr>
<tr>
<td>Student Traffic Bowl 1st Place</td>
<td>California Polytechnic State University, San Luis Obispo</td>
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<tr>
<td>Student Traffic Bowl 2nd Place</td>
<td>Oregon State University</td>
</tr>
<tr>
<td>Student Traffic Bowl 3rd Place</td>
<td>Oregon Institute of Technology</td>
</tr>
<tr>
<td>James H. Kell Student RFP</td>
<td>California Polytechnic State University, San Luis Obispo, “Wayfinder”</td>
</tr>
<tr>
<td>Membership Award Highest Number Gain</td>
<td>Nevada Section</td>
</tr>
<tr>
<td>Membership Award Highest Percentage Gain</td>
<td>Hawaii Section</td>
</tr>
<tr>
<td>Student Chapter Annual Meeting Award - Winner</td>
<td>California Polytechnic State University, San Luis Obispo</td>
</tr>
</tbody>
</table>
Section and Chapter Reports (continued from page 8)

- The Arizona chapter regularly hosts webinars and training opportunities for our membership and several such events are planned for the coming year. In addition, work has already begun for our very successful annual ITE-IMSA Spring Conference, which is scheduled for February 28 – March 2, 2017 at the Embassy Suites Phoenix-Scottsdale.

- While the Civil Engineering program at NAU is not new, it has only recently grown to the size that could sustain a student chapter of ITE, which was founded in 2015. The NAU students, advised by Dr. Ed Smaglik (a former ITE student himself), have enthusiastically embraced their new status, and are currently working hard to establish connections with transportation professionals in Northern Arizona and beyond. Current president Skylar Clemons is in the process of building a repertoire of professional speakers for their fall seminar series.

- While NAU is building its chapter from scratch, the chapters at Arizona State University and the University of Arizona continue to maintain strong programs and connections to the Southern Arizona Chapter and Arizona Section. ASU recently hosted a seminar with Eric Anderson, MAG Transportation Director, and more seminars and meetings are being planned.

- A new annual Arizona ITE Student Chapter Workshop is under development, which will include members from all three Arizona ITE Student Chapters. The Workshop will include professional and leadership development sessions as well as a Traffic Bowl “Scrimmage” and networking opportunities between students and future employers and mentors. The workshop will initially be planned to take place during the Arizona ITE/IMSA Spring Conference, but will hopefully migrate to a fall semester timeframe by next year and will rotate among the three university campuses.

- We held Summer Breakfast Series, which is a three-part series of related topics held in the cooler morning hours during the summer months of June, July and August. This year’s theme was the impacts of Transportation Network Companies and Connected/Automated Vehicles and we were joined by ITS Arizona as a co-sponsor. In June we had two presentations, with Dawn Coomer presenting Valley Metro’s TDM program and David Corbin (Xerox Services) discussing the Transit Mobility Marketplace. In July, attendees were treated to a review of the State of the Industry in Connected Vehicle Technologies by Dr. Doug Gettman (Kimley-Horn). Our series concluded in August with Scott Shogun’s presentation on the Impact of Automated Vehicles on our Transportation System.

Colorado/Wyoming Section
(Report provided by Devin Joslin)

- Current officers are Ryan Gernroth, President; Lou Davenport, Vice President; Duane Cleere, Secretary/Treasurer.

Intermountain Section
(Report provided by Devin Moore)

- Current officers are Devin Moore, President; Cameron Waite, 1st Vice President; Erin Claunch, 2nd Vice President, Hal Johnson, Secretary/Treasurer.

- The Intermountain Section meeting was held May 19-21, 2016 in Jackson, WY. 130 professionals attended the conference, including 11 students from 5 universities. The following awards were presented:

  - Intermountain Section Distinguished Service Award – H. Terry Smith
  - Project of the Year – South Valley Connector (City of Pocatello/ HDR)
  - Best Technical Presentation - Thomas McMurtry (Bow Tie Intersection)
  - Ellis L. Mathes Scholarship – Natalia Brown (BYU) and Jordan Frustaci (BYU)
  - Student Paper Winners – Holly Lloyd (USU) “Safety Analysis of the Diverging Diamond Interchanges in

(continued on page 12)
**Nevada Chapter**  
(Report provided by Eric Hawkins)
- Current officers are Eric Hawkins, President; Molly O’Brien, 1st Vice President; Lindsay Saner, 2nd Vice President; John Penuelas, Secretary/Treasurer; and Kondala Rao Mantri, Past President.
- Annual award winners from the ITE Chapter were:
  - Project of the Year: I-5151/ Horizon Drive Diverging Diamond Retrofit
  - Engineer of the Year: Scott Thorson
- Meetings are held regularly (third Thursday of each month), and the Fall Transportation Conference was held October 13-14.

**Oregon Section**  
(Report provided by Molly McCormick)
- Current officers are Miranda Wells, President; Mark Haines, Vice President; Patrick Marnell, Treasurer; and Anthony Buczek, Past President
- Meetings and workshops are held regularly within the Section with past topics including bus rapid transit, Road to Smart Mobility, expert traffic panels, and smart cities. The QUAD ITE/IMSA joint conference was held May 23-25 in Lynnwood, WA.
- The Bill Kloos Traffic Bowl turns 25 this year and it’s going to be the biggest event yet November 17 in Portland, OR! Please join us in watching transportation engineering students from Oregon & Washington duke it out over transportation trivia to see who gets to take home the coveted trophy and claim the biggest novelty check!
- Oregon ITE hosted a “Golf for People that Don’t Golf” tournament at McMenamins Edgefield. The focus was on having fun and socializing with other great members of Oregon ITE! It was a pitch and putt style 20 hole par 3 course.

**San Diego Section**  
(Report provided by Teala Cotter)
- Current officers are Ryan Zellers, President; KC Yel-lapu, Vice President; Ali Shahzad, Treasurer; Teala Cotter, Secretary; and Mark Jugar, Past President
- Meetings are held regularly within the Section with past topics including Transportation Demand Management and SB 743 Implementation. Upcoming meetings include the holiday party (December 10).
- ITE San Diego held their annual ITE Golf Tournament at Twin Oaks Golf Course in San Marcos. There were awards, raffle prizes, and BBQ dinner following everyone playing 18 holes. Approximately 100 people attended the event.
- ITE San Diego held a Volunteer Mixer at the Blind Lady Ale House in San Diego. The event created a platform for people to network, socialize, and learn how they can participate in ITE. The event was a great time for people to show their interest in ITE and sign up to volunteer in the various positions available. The volunteer meeting was a great event to cultivate new members, allow new opportunities to be involved, and cultivate upward leadership tracks for young members that may wish to eventually be on the executive board.
- ITE SDSU has been very busy as well, having attended the SLS, and holding a resume workshop, a joint bowling social, plan check workshops, as well as volunteering at the Annual Golf Tournament.
- Preliminary planning efforts are currently underway for the 2017 Western District Meeting to be held in San Diego. Keep up to date on this and other Section events on the Section’s website: www.sandiegoite.org
Viewed by over 4,000 engineers and vendors monthly, WesternITE is an excellent means for advertising your company and positions available! Contact our Advertising Manager, Robert Sweeting at rsweeting@toaks.org or (805) 449-2438 for more information and pricing.

**POSITIONS AVAILABLE**

Transportation Engineer Project Manager – City of Flagstaff (Flagstaff, AZ)

Assistant Traffic Designer - Rick Engineering (San Diego, CA)

Traffic Signal Designer – Hexagon Transportation Consultants (San Jose or Gilroy, CA)

Lead Traffic Engineer - WSP Parsons Brinckerhoff (Orange, CA)

Lead Traffic Engineer - WSP Parsons Brinckerhoff (Seattle, WA)

Associate Engineer – Napa County (Napa Valley, CA)

Transportation Planner – Kimley-Horn (Oakland, CA)

Traffic Engineer/Transportation Planner – David Evans and Associates (Denver, CO)

Transportation Engineer/Planner – W-Trans (Santa Rosa or Oakland, CA)
PROFESSIONAL SERVICES DIRECTORY