



NEWS

April/May 2004
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PRESIDENT'S MESSAGE

By Sarath Joshua, PE, PhD



Dear AZITE Member,

We have had an exciting month of March during which we held a very successful annual conference, and we also helped persuade enough members of the state senate to vote "No" on Senate Bill 1271. First, our thanks go to all the volunteers in the organizing committee, vendors/exhibitors, and speakers for making this year's event a memorable one. As for SB 1271, we can say with relief that the system worked and logic, reasoning and good sense prevailed. If passed, SB 1271, would have required most signalized intersections in the state with left turn arrows to be converted to lagging operations. Such a legislative mandate would have reduced the technical decision making ability of transportation professionals to recommend what is best for the traffic conditions, thus rendering their professional decisions less effective. This is the first time in recent history that AZITE has had to make an official statement on any proposed state legislation. I hope that, in the future, we could avoid having to request legislators to vote "No". A timely dialogue between transportation professionals and state legislators could help identify potential problems early in the process.

Over the last month or so I have given much thought to our role as professionals and engineers in society. I know that not all of you, AZITE members, are engineers, but please bear with me as I wear my engineer hat for awhile, I am sure it applies to all professionals. I feel that whether we serve in the public or private sectors, we are bound to come across tough situations where we may be caught in conflicts between our roles as individual professionals or as employees of firms or agencies. The Canon of Ethics for ITE Members (included in this newsletter) clearly lays out how we should conduct our relations with the public, employers, clients and other professionals. Please take a few minutes to read it. The best course of action, in my view, when confronted with such situations, is to take a firm stand as a professional based on our ethics and rules of professional conduct. The easy path of inaction, on the other hand, could eventually lead to our profession being considered irrelevant. Taking a stand, however, is easier said than done.

Website Update: If you have not visited our website it is at www.azite.org. Again thanks to our webteam, Sylvia Mousseux of Scottsdale and Nak Kim of Earth Tech for maintaining the website.

Forum: We have implemented the AZITE Discussion Forum via the District 6 website. Just click on the Forum button at our website. New default accounts were added for all active ITE members as of March 25, 2004. The default accounts have the following general formats: Username = First 6 letters of last name plus Last 3 digits of Membership ID No. For example, the Username for James Johnson, Member ID 129989 would be johnso989; all lowercase. If your last name has less than six letters, just use all the letters you have. Password = ITE Membership ID No. (all digits). For James Johnson, it is 129989.

Once you successfully login, you are free to change your password via the PROFILE link for your account. If there are any questions, send a message to an admin (vite@westernite.org) for help.

District 6 Annual Meeting: The 2004 District 6 Annual Meeting will be held in Sacramento from June 20-23. We will be making a presentation there hoping to be selected as the host for the 2009 District meeting in Phoenix.

Recent Meetings & Events:

- January meeting Reed Kempton presented Maricopa County Trails System
- Future City Competition – AZITE award won by a team from Ira Murphy Elementary School in Peoria, mentored by AZITE member Paul Porell.
- Engineers Day AZITE Exhibit at Arizona Science Center
- February meeting Paul Basha presented a study comparing safety of leading and lagging signal phasing.
- March 9-11: ITE/IMSA Spring Conference

Upcoming Events:

- April 22 Meeting, Location: Monti's La Casa Vieja, Tempe
- Speaker: Mike Frisbie Topic: ROW Management Program

If you have questions or would like more information about our Section please visit our website at: www.azite.org. If you don't find answers to your questions there or you want to make suggestions related to AZITE please feel free to contact me or any of the board members via email, phone or in person at our monthly meetings.

Kim Carroll Promoted to Lead Kirkham Michael's Arizona Traffic Group

Kimberly A. Carroll, PE, was recently promoted to Traffic Engineering Manager for the Arizona operations of Kirkham Michael Consulting Engineers (KM). Kim has more than 10 years of professional experience serving as a project manager at KM since 2000, leading traffic design and studies for municipalities, county and state departments of transportation, and private owners and developers.

She is an active member of the Institute of Transportation Engineers and was recently elected Treasurer of the organization in 2003. Kim chaired the planning for ITS Arizona's 2003 state-wide conference and is an active member of that organization which focuses on intelligent transportation systems. She is a 2000 graduate of ACEC's LEAP class and completed the year-long "Leadership Kirkham Michael" program in 2003.

KM opened its first office in Arizona in Phoenix in 1989 and established a presence in Prescott in 2000 to serve Northern Arizona clients. Corporately, former Corps of Engineers employees Rowland Kirkham and Stan Michael founded KM 58 years ago in Omaha, NE. Since then, the firm has grown from a two-man firm into a company employing more than 250 professionals, with 30 in Arizona. Ranked among America's top 400 design firms, we maintain offices in Arizona, Colorado, Iowa, Kansas, and Nebraska offering innovation in transportation engineering, municipal engineering, structural engineering, land development, survey, and construction administration and observation.

Young Professionals Scholarship Program

The ITE Consultants Council is sponsoring a scholarship program for young professionals in the transportation industry. Winners of this scholarship will be provided \$1500 in travel assistance to attend the 2005 ITE Annual Meeting and Exhibit in Melbourne, Australia.

Below are links to the Scholarship Fact Sheet and application form:
http://www.ite.org/councils/2005Scholarship_Program.pdf
http://www.ite.org/councils/Scholarship_App_Form.doc

For further information, please contact Heather Talbert, Chapter Services Associate, Institute of Transportation Engineers, at (202) 289-0222, ext. 138 (phone), (202) 289-7722 (fax), or via e-mail at htalbert@ite.org or the ITE website at www.ite.org.

WANTED: NEWSLETTER EDITOR

ITE Arizona News is looking for someone with ink in his/her veins to take over editorship of the newsletter in time for the September/October issue. If interested, please contact Joe Spadafino at jspadafino@kirkham.com or Sarah Joshua at sjoshua@mag.maricopa.gov.

ACTIVE MEMBERS GROUP MEETING

The next meeting of the Active Members Group will be on May 10th at Rosie McCaffrey's at 5:30 PM. Rosie McCaffrey's is located at 906 East Camelback Road, Phoenix. For additional information, contact Christine Warren at cwarren@ch2m.com.

VIGILANTE GADGETS AND GIZMOS

How would you like to cruise through town without ever having to worry about stoplights? It would be like you're the President of the United States. Well, there is a device out there that changes red lights to green lights as you drive, using a mobile infrared transmitter. It sends a signal about a third of a mile ahead, telling the light to change when you want it to. Fire and emergency medical workers already have access to these gizmos, which are known as MERTs. They are crucial for emergency workers because they need to be able to manipulate traffic to get to emergencies and possibly save lives. Imagine the havoc on the streets if just anyone can get a hold of these devices. Unfortunately, they are available on the Internet and people are paying \$300-\$400 for them. If too many people start using them, it could cause emergency workers to be stalled and eventually result in the systems being deactivated. Fortunately, signal systems that use coding for signal preemption, as in Mesa, are protected from such devices and current state law makes it illegal to use such devices. There is an activity in the Phoenix region, led by Mesa and Tempe, on a unified approach to preemption across the entire region.

WHAT WE'RE UP AGAINST...

Real answers received on exams given by the California Department of Transportation's driving school:

Q: Do you yield when a blind pedestrian is crossing the road?

A: What for? He can't see my license plate.

Q: Who has the right of way when four cars approach a four-way stop at the same time?

A: The pick up truck with the gun rack and the bumper sticker saying, "Guns don't kill people. I do."

Q: When driving through fog, what should you use?

A: Your car.

Q: What changes would occur in your lifestyle if you could no longer drive lawfully?

A: I would be forced to drive unlawfully.

Q: What are some points to remember when passing or being passed?

A: Make eye contact and wave "hello" if he/she is cute.

Q: What is the difference between a flashing red traffic light and a flashing yellow traffic light?

A: The color.

Q: How do you deal with heavy traffic?

A: Heavy psychedelics.

SCIENTIFICALLY SPEAKING

What causes the "washboard" effect on unpaved roads?

Q. We live in a rural area and on many of the unpaved roads a washboard effect develops. Others I've asked an explanation say it's a result of bumps causing tires to leave the ground and then land, and erosion takes care of the rest. This answer doesn't seem to account for varying speeds, car weights and tire sizes. The ruts seem pretty uniform in their depth and spacing-- wouldn't erosion create a more haphazard effect?

A. The phenomenon you refer to is known as "washboarding," a wave-like pattern on unpaved roads that might more aptly be

called speed bump hell. As you've observed, the ruts occur with striking regularity, belying a chaotic event like erosion.

According to Tom Pettigrew, a Forest Service engineer, the cause is an unlikely source: your car's suspension. (Well, maybe not yours specifically, but it's not innocent in this matter, either.) A vehicle's suspension system distributes the shock and energy of road irregularities with a bouncing rhythm called harmonic oscillation. At each down stroke, the wheels exert extra force on the road, causing the particles in the road to either pack or displace at regular intervals. Once a pattern of ruts starts to establish itself, it becomes self-reinforcing due to what engineers call forced oscillation. The next car hits the same irregularities in the road and bounces at the same rate, causing the pattern to become more and more defined. Forced oscillation overcomes minor variations in oscillation rate that might otherwise arise due to differences in car weight.

Wouldn't variations in speed affect the washboard pattern? Sure, which brings us to another critical part of the feedback loop: you, the driver. Drive too fast on a washboard road and the down stroke exerted by the car wheels may meet the road at a point where a bump is ramping upwards. You know what that means: You bounce off the ceiling. Instinctively most drivers slow to a speed at which the down strokes coincide with the troughs between bumps, reinforcing the pattern.

Washboarding is inevitable in any unpaved road that sees fairly heavy traffic. The only way to avoid it is to: (a) radically redesign how automotive suspensions are made, (b) give up suspensions altogether, or (c) keep off those dirt roads.

CALL FOR PANELISTS

Richard E "Rich" Corbett is responsible for the Transportation Track at the Arizona Planning Association State Conference, to be held in Tucson September 22 - 24, 2004. He is looking for experts to organize and/or participate in panel discussions at the conference.

He describes the Transportation Track thus:

Transportation: Improve Conditions

Where has our rapid growth taken us? Will we continue to rely solely on private motor vehicles, as has been the tradition in the Southwest? Can Growing Smarter make a difference? Are we being innovative in the ways we address transportation, as we attempt to manage growth? This Track addresses these and related questions, and will include timely and interesting presentations, such as:

- The Phoenix rail system - challenges & opportunities
- Neighborhood Traffic Calming/Control
- PAG as the Tucson Regional Transportation Authority - status & prospects
- Tucson's Puerto Nuevo - Synergy of Transportation Modes

There will be a total of six sessions:

- 1) The Phoenix rail "system"
- 2) Puerto Nuevo as it relates to international trade goods movement
- 3) Community & Special Area Transportation Planning
- 4) Neighborhood traffic calming/control
- 5) The Tucson area RTA - status and prospects
- 6) Rail crossings - Range of solutions and potentials for them

Rich believes that three presenters per panel will work best. The Panel Chair could be one of the presenters, or not. Please let Rich know if you are interested, either to Chair (and organize) one of these, or to be a presenter on one. For more information, contact Rich at

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FUTURE CITIES' RESULTS

On Saturday January 24, 2004 the state's Future City Competition was held at the Phoenix Preparatory Academy with 83 entries/models submitted by teams from 29 Arizona schools. On Wednesday evening the AZITE team of judges selected the top four models. On Saturday the AZITE team interviewed the kids and decided on the team ranks. Here's how the teams ranked:

1. St Theresa Catholic School, Phoenix: Celestial, a space colony located between earth and the moon, ca. 2253 A.D.
2. Ira Murphy Elementary, Peoria: Lemures Arx, a former Colorado mining town, ca. 2227 A.D.
3. Mesquite Junior High, Gilbert: Quick Silver, a pneumatic powered mass transit, earth-based city, ca. 2249 A.D.
4. Cocopah Middle School, Scottsdale: Genesis, a colony on Gemini, a planet very similar to earth in another galaxy, ca. 2550 A.D.

The Society Award from AZITE went to Ira Murphy Elementary's Lemures Arx. The Society Awards are distributed by competition organizers among the top ranked models to make sure that one entry/model does not end up with all the awards.

AZITE award for the Best Multimodal Transportation System was also won by Ira Murphy Elementary. This team also won FIRST PLACE in the overall competition and will now go to Washington, D.C. to compete with winners from other states. CONGRATULATIONS to the Ira Murphy Elementary team and their mentor, AZITE member Paul Porrel.

We recognize all AZITE members who contributed to this wonderful event to groom future engineers and past president Andrew Smigielski, who was heavily involved in the conference organization and introduced this event to AZITE a few years ago.

The team of judges for the AZITE award :

Kelly La Rosa - City of Peoria
Scott Nodes - City of Peoria
Amara Ibeji - CK Engineering
Faisal Saleem - MCDOT
Aruna Bodduna - City of Phoenix
Lavanya Vallabhaneni - MAG
Sarith Joshua - MAG

Photos from the event are posted at www.azite.org.



Canons of Ethics for Members

Preamble

The ITE Member, to uphold and advance the honor and dignity of the profession and in keeping with high standards of ethical conduct, will:

- Use professional knowledge and skill for the advancement of human welfare;
- Be honest and impartial in dealing with employer, clients, and the public;
- Strive to increase the competence and prestige of the profession.

Relations with the Public

- Sec. 1. □ The member will have due regard for the safety, health and welfare of the public in the performance of professional duties.
- Sec. 2. □ The member will endeavor to extend public knowledge and appreciation of the profession and its achievements, and will oppose any untrue, unsupported, or exaggerated statements regarding the profession.
- Sec. 3. □ The member will not practice, market or promote in a false, misleading, or deceptive manner. (1992)
- Sec. 4. □ The member will express an opinion on a professional subject only when it is founded on adequate knowledge and honest conviction.
- Sec. 5. □ The member will preface any ex parte statements, criticisms, or arguments issued by clearly indicating on whose behalf they are made.

Relations with Employers and Clients

- Sec. 6. □ The member will act in professional matters for each client or employer as a faithful agent or trustee.
- Sec. 7. □ The member will endeavor to avoid a conflict of interest with employer or client, but when unavoidable conflict arises, will fully disclose the circumstances to all parties involved.
- Sec. 8. □ The member will act fairly and justly toward vendors and contractors and will not request, propose or accept any gratuities or commissions, directly or indirectly, that might compromise the member's professional judgment or induce an action to secure or retain work for any vendor or contractor or the member.
- Sec. 9. □ The employer or client will be informed by the member of financial interest in any vendor or contractor, in any business, or in any invention, machine or apparatus, which is involved in a project or work of the employer or client. Such interest will not be allowed to affect decisions regarding professional services which the member may be called upon to perform.
- Sec. 10. □ The member will indicate to employer or client the adverse consequences to be expected by overruling professional judgment.
- Sec. 11. □ The member will guard against conditions that are dangerous or threatening to life, limb, or property on work for which the member is responsible, or, if not responsible, will promptly call such conditions to the attention of those who are responsible.
- Sec. 12. □ The member will undertake only those professional assignments for which the member is qualified. The employer or client will be advised to engage specialists and the member will cooperate with them whenever the employer's or client's interests are served best by such an arrangement.
- Sec. 13. □ The member will not disclose information concerning the business affairs or technical processes of any present or former employer or client without their consent.
- Sec. 14. □ The member will not accept compensations from more than one party for the same service, or for other services pertaining to the same work, without the consent of all interested parties.
- Sec. 15. □ The member will not offer to or pay either directly or indirectly any commission, political contribution, or fee, or other consideration in order to secure or retain work, exclusive of securing salaried positions through employment agencies.

Relations with Other Professionals

- Sec. 16. □ The member will endeavor to provide opportunity for the professional development and advancement of professionals in the member's employ or under the member's supervision.
- Sec. 17. □ The member will not injure maliciously the professional reputation, prospects, or practice of another professional. However, proof that another professional has been unethical, illegal, or unfair in professional practice, should be given to the proper authority.
- Sec. 18. □ The member will not engage in competitive practices contrary to the law. (1992)
- Sec. 19. □ The member will, in the solicitation, submittal or evaluation of a proposal for professional services, give due regard to all aspects, including: technical capability, prior experience, creativity and suitability of the proposed work plan.
- Sec. 20. □ The member will cooperate in advancing the profession by interchanging information and experience with other professionals and students, and by contributing to public communication media, and to the effects of professional and scientific societies and schools.
- Sec. 21. □ The member will not associate with or allow the use of his or her name by an enterprise of questionable character, nor become professionally associated with professionals who do not conform to ethical practices, or with persons not legally qualified to render the professional services for which the association is intended.
- Sec. 22. □ The member will not exert undue influence or offer, solicit, or accept compensation for the purpose of affecting negotiations for professional engagement.

ITE/IMSA SPRING CONFERENCE

The annual ITE/IMSA Spring Conference was held at the Black Canyon Conference Center on March 9-11. On this page are an assortment of photos taken during the event..

Exhibit Hall



Opening Session on Thursday

Left: Mesa Mayor Keno Hawker



Presentations of Technical Papers

Safety Forum



Thursday's Luncheon



STATEMENT FROM 2004 ITE-ARIZONA TREASURER CANDIDATE

Micah Henry, P.E., Traffic Engineer, PB Farradyne



Micah Henry is a traffic engineer with PB Farradyne and has been with the company for 3 years. Micah is an east coast transplant and grew up in Virginia, receiving his bachelor's degree in civil engineering from the University of Virginia and his masters degree in transportation engineering from University of Florida. His involvement in traffic engineering has spanned 15 years, beginning as a CAD operator for Farradyne and continuing through academia as a summer intern for several consultants. Micah worked for both the Virginia Transportation Research Board and the City of Charlottesville engineering department, developing a comprehensive traffic calming plan for Charlottesville and assisting in research for freeway interchange guidelines. He was the recipient of the Southeastern Transportation Center (STC) Fellowship while attending the University of Florida, where he researched leading versus lagging left turns. Upon graduating from Florida, Micah and his wife Carmen selected Phoenix as the place to continue their professional careers, with Micah joining TransCore as a traffic engineer tasked with traffic signal and ITS design. Micah is now currently working for PB Farradyne, focusing on traffic operations for the Central Phoenix / East Valley Light Rail project, as well as other projects in New Mexico, Utah, California, and Hawai'i.

Micah has been actively involved with ITE, serving as the President of the Florida student chapter, and an active member with AZITE. He has received several scholarships including the Kenneth M. Wilkinson Virginia Section ITE (VASITE) Scholarship twice. He is a member of Tau Beta Pi Engineering Honor Society as well as the Order of the Engineer. Micah has been active in the region in participating in the nation-wide Future Cities competitions as mentor, judge, and judge team leader.

I am very excited at being nominated for the treasurer position. I have been looking to increase my involvement with ITE, and I think all members should be asking themselves, "How can I volunteer more and get active in my professional community as well as my home community?" With a broader focus on fellowship and activism, ITE can help the profession achieve a greater status in society. My goals as AZITE Treasurer include:

- Increasing membership and participation via awareness and student programs
- Advocating joint meetings with brother and sister organizations to reduce costs
- Reviewing available revenue sources and seeking new ones
- Reviewing existing expenditures and seeking to reduce costs
- Expanding participation by providing new opportunities for members to take part

My tax man told me this year that I had the most organized records he's ever seen. Unfortunately that didn't help my return. I take pride in being thorough and vigilant and this is what I hope to bring to AZITE. Thanks for your time and consideration.

STATEMENT FROM 2004 ITE-ARIZONA TREASURER CANDIDATE

Paul S. Porell, P.E., (M), Traffic Engineering Director, City of Scottsdale



It is an honor to be nominated as a candidate for the ITE Arizona Section Treasurer. If elected I promise to serve the section membership faithfully and to the best of my abilities.

As a thirty-year member of ITE, I started my career in Traffic Engineering upon graduation from Northeastern University in Boston with a Bachelor of Science degree in Civil Engineering. I have spent the bulk of my career in the Consulting business; the first eighteen years in the New England area and then in Arizona since 1985. I resigned my position as Vice President of the New England Section of ITE when I relocated to Phoenix to open the new office for H.W. Lochner, Inc. During my early days in Boston, I worked on two of the very first computer controlled traffic signal systems and was involved in the early stages of planning on the “Big Dig” which is just now coming to a construction conclusion. In Arizona I have been involved with planning and design activities for the valley freeway system as well as a host of transportation planning and traffic engineering design projects for ADOT, and numerous municipalities in the Phoenix and Tucson areas. Most recently I have joined the public sector as Traffic Engineering Director for the City of Scottsdale.

One of my first duties upon starting work in Scottsdale was to testify before the Senate Committee on Transportation concerning the bill that would have mandated lagging left turn phasing at all traffic signals in Arizona. This bill has been defeated in the full Senate, however it has brought to my attention the need for all transportation professionals to increase their presence and to make their feelings known at the State Capital. The Arizona Section of ITE needs to strengthen its voice in these matters and to provide a more proactive stance in matters that impact our profession. As a member of the section board I would like to foster a stronger involvement of our membership in legislative matters not only at the state level but in county and municipal government as well.

The ever-increasing use of advanced technology in the traffic engineering field has always presented a challenge for the transportation professional to stay current. ITE has been in the forefront in providing the type of learning necessary to stay abreast of these advances through networking, sharing experiences and fostering research. I believe that as members of ITE we should be sharing more of this knowledge with other public works professionals and the general public. I would like to see the Arizona Section of ITE expand its role in the public information and outreach area. Working with the local media and being able to supply them with informative copy that is understandable to the average reader will hopefully increase awareness, understanding and compliance with traffic control installations.

Finally, I would like to continue the fine work that ITE has been doing in the area of increasing the involvement of our student membership. Both the national efforts and the local section efforts to strengthen the connection to our student chapters should be continued. I would like the Section to consider more events and possibly a mentored competition similar to the concrete canoe competition as a means to expose more students to transportation engineering.

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MEETING ANNOUNCEMENTS



APRIL MEETING ANNOUNCEMENT

The Monthly Meeting of the Arizona Section of ITE will be held on
Thursday, April 22, 2004 at 11:55 A.M.
at

Monti's La Casa Vieja
One West Rio Salado Parkway
Tempe

Cost: \$20.00

(Menu: Filet Mignon, Baked Cod, or Vegetarian Entrée-veggie fajitas or pasta marinara)

Speaker: Mike Frisbie, P.E., City of Phoenix Traffic Engineering Supervisor
Topic: City of Phoenix Right of Way Management Program



RSVP by noon, Monday, April 19 to Kim Carroll

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