



INSTITUTE OF TRANSPORTATION ENGINEERS

## SECTION ANNUAL REPORT FORM

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# 2013



Institute of Transportation Engineers



RIVERSIDE AND SAN BERNARDINO SECTION

**OFFICERS:**

*Current Officers:*

**PAST PRESIDENT** Dowling Tsai  
**PRESIDENT** Jonathan Hofert  
**VICE PRESIDENT** John Kerenyi  
**SECRETARY/TREASURER** Gianfranco Laurie



*Committee Chairs:*

**50TH ANNIVERSARY COMMITTEE** Anwar Wagdy  
**WEBMASTER** Nathan Mustafa  
**SCRIBE** Daniel David  
**SOCIAL** J.R. Morgan & Dennis Acuna  
**NEWSLETTER** Antonio D. Salas  
**TECHNICAL** Mohammed "Dr. Q" Qureshi  
**LEGISLATIVE COORDINATOR** Anwar Wagdy

**MEMBERSHIP:**

<i>Number:</i>	<i>Membership Grade:</i>	<i>Section Annual Dues Rate:</i>
1	Honorary	\$ 0
8	Fellow	\$ 27.50
10	Fellow Life	\$ 0
33	Member 10	\$ 27.50
102	Member	\$ 27.50
7	Member Life	\$ 0
3	Member Retired	\$ 0
4	Institute Affiliate	\$ 27.50
16	Student Member	\$ 0

**TOTAL MEMBERS:** **184**



Was there a change in the Section Bylaws during this reporting period? (If yes, please attach a copy of the new bylaws.)

[ ] Yes [X] No

### TECHNICAL ACTIVITIES:

Two members of this Section presented at the Arizona 2013 Western District Annual Meeting. The presentation discussed LED versus HPS Lighting, A Shoot-Out on the Nason Street Corral. A brief summary of the presentation is provided below. A copy of the report is also attached.

The City of Moreno Valley has opened a new roadway featuring light-emitting diode (LED) street lighting. The authors utilized a light meter to gauge the performance of the roadway lighting system using both new LED and new High-Pressure Sodium (HPS) luminaires. The field calculations were used to verify a computer model of the lighting system using a readily available lighting analysis computer program whose methodology replicates the methods developed by the Illuminating Engineering Society of North America. The paper presents quantitative and qualitative analysis of the performance of the HPS and LED lighting systems both individually and comparatively, and also considers the performance of the computer model against the field data. A cost analysis is presented which considers the electrical service provider and agency responsible for maintenance (e.g. franchise electrical utility maintained versus agency maintained).

### LEGISLATIVE ACTIVITIES DURING THIS REPORTING PERIOD:

Within our monthly newsletter, which is sent out to our mailing list of 300 plus recipients is our mechanism for distributing very important legislative updates. We have tasked our Legislative Chair, Anwar Wagdy to a column that discusses Legislative information and his first article was in our September 2013 titled Anwar's Corner. He began his first article in September, and has continued to provide updates to legislative information while throwing in a funny piece every once in a while. A brief summary of what legislative information passed to our members in 2013:

- AB 612: this Assembly Bill requires that the minimum yellow time for all movements of traffic signal equipped with automated enforcement system be increased by one second. The bill was subsequently sent to the CTCDC for review and recommendations.

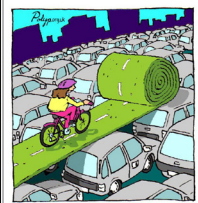
- AB 1371: this signed bill requires motorists to give bicyclists at least three feet of space when passing, or to slow down if they can't give room.

- Provided a link to the 2014 digest of new traffic legislation, which was prepared by the Auto Club, CHP & DMV.

#### ANWAR'S CORNER

As your new Legislative Chair, I will keep you updated on new traffic/transportation-related news and updates, but in the mean time don't be late going to work by getting trapped in the construction zone...!!

-Anwar Wagdy, PE



Courtesy of polyp.org.uk

## MEETINGS HELD DURING THIS REPORTING PERIOD:

***Purpose: January Vendor Show (Topic: Inductive Bicycle Loop Detectors)***

***Date: January 17, 2013***

***Location: DoubleTree Hotel, Ontario Airport***

***Attendance: 130***

The guest speakers were Ron Keith with Orange County Transportation Authority (OCTA) and Thomas Potter with Reno A&E. The topic presented to us was, "Development of an Inductive Loop Detector for Bicycles." This presentation discussed the design, evaluation and refinement of an inductive loop design that will detect bicycles.

Loop geometry for bicycle detection is a real critical design characteristic. Bicycle riders have a tendency to ride along the lane line, therefore, typical loop geometry is inadequate. Reno A&E has developed a 12ft wide, 4 turn, parallelogram loop geometry that can detect all vehicles with the added ability of differentiating bicycles from motorized vehicles. Separating bicycles from motorized vehicles allows programming independent initial and extension times for bicycles. This benefit allows traffic engineers to detect and provides a safe passage time for bicycles without compromising the intersections efficiency.

The installation cost is approximately the same as typical loop detection installation. OCTA is in the process of finalizing investigations for bicycle loop detection. The subsequent steps are video counts and other relevant data counts to produce report and present to the transportation authority.



***Purpose: February Luncheon (Topic: Partnering with Law Enforcement)***

***Date February 21, 2013***

***Location: Old Spaghetti Factory, Rancho Cucamonga***

***Attendance: 28***

The guest speaker was Mike Soubrious a retired Lieutenant with the California Highway Patrol (CHP). The topic presented to us was, "Partnering with Law Enforcement." This presentation discussed the collaboration between law enforcement personnel and engineers to improve traffic safety in our streets.

Mr. Soubrious presented a few examples as he has personally worked with engineers to help solve traffic safety problems. The first example he discussed was an abandoned mobile home unit discarded on the side of the road. He coordinated with local transportation engineers and came to a solution. The solution was to change the classification of the mobile home unit from a vehicle to an abandoned storage shed. The new classification permitted local County transportation staff to come and remove the storage shed from the side of the road.

The second example Mr. Soubrious presented to us was a motoring traffic collision along a winding road. He coordinated with local transportation engineers and came to a solution. The solution was to add more asphalt and include rumble strips with other traffic safety improvements. These improvements would help reduce motoring traffic collisions along the winding road.

A third example Mr. Soubrious presented to us was parked vehicles in front of residential mailboxes. He coordinated with local transportation engineers and came to a solution. The solution was to install red paint on the existing curb. The red paint would eliminate vehicles parking in front of these residential mailboxes.

Mr. Soubrious explained to us engineers the idea of building a good connection with law enforcement. The partnership between law enforcement personnel and engineers can efficiently improve our traffic safety problems we incur daily. Mr. Soubrious advises us to coordinate with our local CHP.



***Purpose: March Luncheon (30th RSBITE Annual Golf Tournament)******Date March 22, 2013******Location: Menifee Lakes Country Club, Menifee******Attendance: 100***

For 30 years in a row our March meeting has been a golf tournament to bring together our members and friends for a day of golf and socializing. Mother Nature came through for another beautiful day for our golf tournament. This year we had 92 golfers and 100 for our lunch banquet.

RSBITE began 30 years ago on March 8, 1984 when 48 golfers played in our first golf tournament held at Quail Lake Golf Course in Moreno, California. Our golf tournament was moved the following year in 1985 to Mountain View Country Club in Corona. In 2002 our tournament was moved to Menifee Lakes Country Club which we have called home since.

J.R. Morgan (our Social Chair) has played in all but one of our 30 golf tournaments. In 1991, J.R. started helping Dick Longstreet (Caltrans) organize the tournament. In 1995, he took over as tournament director. Organizing the golf tournament has been challenging, rewarding, fun and helps keep him connected with people in the transportation profession since J.R. retired in 2005.

Our golf tournament was a success thanks to those people who took the time to play golf and volunteer. Deepak Ubhayakar and Cynthia Martinez (DDL Traffic, Inc.) helped by checking in golfers and passing out the goodie bags to each player for the 30th Annual Golf Tournament. To celebrate this special event, every player got a sleeve of logo balls commemorating the 30th annual tournament. Thanks to Dennis Acuna (County of Riverside), Janna Mckhann (Nextech Systems, Inc.), and Laurie Casper (Fortell Traffic, Inc.) for putting together the goodie bags.

Students from Cal Poly Pomona's student chapter of ITE held a fundraiser at Hole 4. Our golfers were very generous again this year, and helped the students raise more than three hundred dollars. American Golf and Fitness International was also set up on the course providing drivers to demo. They sponsored a raffle for a "Crank It" driver which was won by Franco Luero. Special thanks to Mike Girardot, President of RodefX, for sponsoring the golf trophies and medals. After the golf awards J.R. was able to raffle off some great raffle prizes. Thanks to all of our consultant and vendor friends who provided some very nice items for the raffle.



*Purpose: April Luncheon (50th RSBITE Anniversary Celebration)*

*Date April 19, 2013*

*Location: Hilton Ontario Airport, Ontario*

*Attendance: 120*

On Friday, April 19th, RSBITE members and guests attended a swank dinner party to celebrate the 50th anniversary of the founding of the Riverside/San Bernardino Traffic Engineers' Association, now RSBITE. About 120 persons attended the event, each of whom dressed up for the occasion.

On entry, couples and groups were invited to have their photographs taken, which became a souvenir portrait in a picture frame.

After a social hour and delicious dinner, the attendees were treated to a magic performance by Mike Perovich, former Caltrans District 8 Director; and a comedy routine by Dee Ubhayakar. After the show, attendees danced the night away to tunes played by the DJ. Others attended an after party hosted by Dee in his hotel suite.

The Board wishes to thank Anwar and his organizing committee which consisted of Dee Ubhayakar, Jim Harris, JR Morgan, David Alcala, and Nathan Mustafa. We also wish to thank the sponsors: Albert Grover and Associates, Counts Unlimited, South Coast Lighting, Hartzog & Crabill, RodefX, Orosz Engineering Group, Hall & Foreman, RBF Consulting, and Dee Ubhayakar. Special thanks also to Dee for sponsoring the DJ, and JR for sponsoring the cake.



***Purpose: May Luncheon (Topic: Student Presentation)***

***Date May 16, 2013***

***Location: Bombay Restaurant Banquet Hall, Ontario***

***Attendance: 58***

The ITE student chapter member presentations were from Cal Poly Pomona and Cal State Fullerton. Two teams from Cal Poly Pomona presented interchange improvement projects. One team from Cal State Fullerton presented a traffic study. Each student chapter competed for first, second, and third place prizes for their student chapters. A brief summary of the student's senior projects and competition results are described.

The first team to present was from Cal Poly Pomona and their project title was, "Improvement of Three Interchanges at State Route 41." This project is located in the City of Fresno and the purpose of this project was to widen on-ramps at Shield Avenue and McKinley Avenue from one-lane to two-lanes and install a ramp metering system to serve the projected traffic increase. The project included a traffic analysis, signal designs, traffic control plans, and drainage improvements. The team prepared plans, specifications and estimates.

The second team to present was from Cal Poly Pomona and their project title was, "Cajalco Road and I-15 Interchange Improvements." This project is located in the City of Corona and the purpose of this project was to develop a project study report including project needs, alternatives, feasibility studies, and geometric approval drawings. The project included a traffic analysis, environmental impact studies, and a cost benefit analysis.

The third team to present was from Cal State Fullerton and their project title was, "Traffic Study on Nutwood Avenue." This project is located in the City of Fullerton and the purpose of this project was to reduce the vehicular delay and improve the level of service on Nutwood Avenue. The project included a field investigation, performing peak hour turning movement counts and an evaluation of diverting traffic. The team prepared a traffic study.

All three team presentations were excellent. Each team understood their scope of work and displayed knowledge within areas of interest.



***Purpose: June Luncheon (Topic: RSBITE Business and Election Meeting)***

***Date June 20, 2013***

***Location: Dave and Buster, Ontario Mills Mall***

***Attendance: 40***

The RSBITE Business and Election Meeting is held yearly to discuss year end financials and announce newly elected officials. John Kerenyi (2013 RSBITE Secretary/Treasurer) presented a PowerPoint presentation covering the Sections income, expenditures, new website benefits and vacant chair positions for interested members considering to take office. At the conclusion of the business meeting, the meeting then shifted to the election portion of this mixed meeting. The guest speaker Walter Okitsu, (2013 Western District President) initiated the election ceremony of the meeting by calling the new 2014 RSBITE Board to the podium. RSBITE members congratulated Dowling Tsai as their new 1st Past President, Jonathan Hofert as President and John Kerenyi as Vice President. The Board called for a volunteer to tally votes for the Secretary/Treasurer position. There were two well qualified candidates running for RSBITE Secretary/Treasurer position and the results determined Gianfranco Laurie as the new elected officer. Walter Okitsu administered the oath for all newly elected officers.



***Purpose: September Luncheon (Topic: Corona Works With a Brand New Controller)******Date September 19, 2013******Location: City of Corona City Hall, Corona******Attendance: 77***

The speaker featured for this business meeting was the City of Corona's very own Dennis Ralls, who is the Traffic Management Center (TMC) Specialist. He gave his presentation entitled "McCain's Omni eX ATC: Corona's Introduction to a New Traffic Controller" describing how the City's traffic signal system evolved throughout the years prior to the product. He also defined why McCain's Omni eX ATC was selected, what exactly the system can do, how it is being tested, and where they are now today. He further discussed what the City has planned for the future linking this new controller.

Mr. Ralls began the presentation with a detailed account of the earlier stages towards how the City's traffic management operation was ran. The City originated with Caltrans 170 and NEMA 390 Infrastructure controllers in attempts to manage the traffic throughout the City, from one central location described as a cubicle. Nevertheless, the systems failed in providing the proper communications to Caltrans, which the City viewed as a high priority within their traffic management operations.

The City went through a short phase of trial and error in selecting a traffic system that met its traffic management needs. The McCain Model 2070 controller was initially used, however, found too bulky to operate effectively even though it used an early version of the program QuicNet. The McCain Omni eX ATC controller was then selected as it utilized an improved QuicNet program that allowed commands to be sent directly to Caltrans.

The City of Corona assisted McCain in testing this new controller through a series of bench, field, and QuicNet tests. It also tested the systems communications, logging, and alert features. The Omni eX ATC was tested to provide solutions toward the prior coordination and preemption issues the City experienced. During testing of the Omni eX ATC, the City was able to reduce traffic delays in specific locations from 90 mins to 45 mins using the controller. The product was also effective in reducing delays during the City's annual 4th of July festival.

As of today, 116 Omni eX ATC controllers that have been deployed, along with its final firmware upgrade. McCain is nearing the end of beta testing "Transparency", which is McCain's new Intelligent Transportation System central control software that includes Omni eX integration.

In the future, the City of Corona's primary plan is to complete the testing of the Omni eX ATC. Upon completion, it is projected that, the system will provide the City with live arterial status such as volumes, occupancies, and speeds. Detection data collection, turning movement counts at any given time, and seasonal trend identifications will be provided using the system. In the horizon, the Omni eX ATC controller will be able to send status updates to mobile devices providing recipients a wide range of information, alerts and feedback from the Omni eX ATC. The meeting concluded with an optional TMC visit.



***Purpose: October Luncheon (Topic: sbX E Street Corridor BRT Project)******Date: October 17, 2013******Location: Old Spaghetti Factory, Rancho Cucamonga******Attendance: 40***

The featured speaker for the month of October was Mr. Milind Joshi, PE, PMP who is the project manager at Omnitrans for the sbX E Street Corridor Bus Rapid Transit (BRT) Project. In his presentation, he provided an overview of the entire project from a project manager's point-of-view. Mr. Joshi discussed the background and purpose of the project, and also spoke on what improvements are expected upon implementation of the project. The Project is to operate along E Street in the city of San Bernardino, following Kendall Drive from the Palm Avenue intersection to California State University, San Bernardino, south on E Street through downtown San Bernardino, east on Hospitality Lane, and south on Anderson Street to V A Hospital in Loma Linda.

By introducing the sbX E Street Corridor BRT Project, also referred to as "sbX", Mr. Joshi mentioned that the program will reduce San Bernardino's traffic congestion throughout the corridor, while address the expected population growth. The project is also expected to improve air quality with the area. It was mention that the sbX project was designed to serve the transit population and provide rapid efficient transit for its riders.

The sbX has a wide range of features and accommodations that are designed to provide its users with both a comfortable and rather quick experience. Level boarding will be installed on all the buses, primarily for senior and disabled riders on the bus. This feature will allow the bus door entrance to flush with the adjacent curb making it easier for boarding. The buses will feature advance fare purchasing encouraging riders to purchase their tickets before boarding the bus. There will be fewer stops as the buses will be equipped with traffic signal priority technology, allowing longer green-light time when approaching intersections. Wait time while using for using sbX is expected to range from an impressive five to ten minutes. Lastly, there the program will be using 14 state-of-the-art buses equipped with wifi, wheel accessibility, and outlets for mobile devices.

Mr. Milind discussed the schedule of the sbX, mentioning that both the design and environmental clearance have both been completed in 2010. Construction for the project began in January 2012 and is expected to be completed in August of 2014. The presentation concluded with Mr. Milind addressing question from the audience, with help from his consulting team that were involved in the project. Be sure to keep a close watch for an opportunity to ride the brand new and highly sophisticated Omnitrans sbX BRT system next August!



***Purpose: November RSBITE/SoCal ITE Joint Luncheon (Topic: Decision Time)******Date: November 20, 2013******Location: The Restaurant at Kellogg Ranch, Cal Poly Pomona******Attendance: 95***

Our speaker for this meeting was Tim Watkins of San Bernardino Associated Governments (SANBAG), in which he discussed the challenges and the findings from the study of the Interstate 15 (I-15) Corridor Improvements. He began his presentation by giving a brief overview of why the improvements are desperately needed for southern California's highway system, and explained that the primary reason is that commuters prefer to drive in their own cars. Using the State Route 91 (SR-91) Corridor as an example for these needs of improvement, Tim showed that currently during peak hours there are approximately 842 vehicles per hour travelling on the general purpose lanes while nearly 1700 vehicles per hour travel on the express lanes of the SR-91 freeway. This demonstration was used to show the utilization of the managed lanes compared to the general purpose lanes on the SR-91. It is because of this SANBAG has completed the study for the improvements of the I-15 Corridor using managed lanes as the feasible alternatives.

The first alternative for the I-15 Corridor improvement mentioned by Tim was the addition of a High-Occupancy Vehicle (HOV) lane. Therefore, the corridor's lane configuration would include four general purpose lanes, one HOV, and auxiliary lanes at various locations throughout the corridor. The second alternative that was discussed was the use of express lanes, which are toll lanes that are dynamically priced based on traffic flow. This alternative includes two express lanes going north and south along the highway, four general purpose lanes, and auxiliary lanes at various locations throughout the corridor. Tim mentioned that the selected alternative is the express lanes alternative as it met the improvement goals in the most effective way.

Tim discussed in detail the goals that the express lane alternative will accomplish upon implementation to improve the I-15 Corridor. The first and most important objective that this alternative would be able to accomplish is moving and managing traffic more effectively throughout the corridor. By implementing the use of toll lanes, this alternative would also generate revenue. This is vital as there are not enough resources to buy out the current situation the corridor is in through other alternatives. Also, adding express lanes gives commuters another option to reduce travel time for drivers of all incomes. This is done by adding capacity to the system, allowing SANBAG to manage traffic and effectively reduce travel times in the general purpose lanes. SANBAG has also paid close attention to the pricing of the toll lanes, as Tim mentioned the express lanes were not "priced out". By this Tim explained that the pricing for the toll lanes placed values on time and operation in order to maximize throughput throughout the corridor.



Tim made sure to emphasize that the objective of moving traffic throughout the corridor was being accomplished by the implementation of the express lanes. He mentioned that it was feasible both engineering-wise and monetarily. However, though this plan is feasible, SANBAG has experienced challenges with environmental impacts to the surrounding communities and efforts in getting board approval. Tim explained that in order to execute the plan, it is imperative that people expressed their views on it and let their voice be heard.

*Purpose: December SoCal ITE/OCTEC/RSBITE Holiday Mixer*

*Date December 10, 2013*

*Location: Los Coyotes Country Club, Buena Park*

*Attendance: 95*

SoCal ITE, OCTEC and RSBITE held their very First Annual Holiday Mixer event on December 10, 2013 at Los Coyotes Country Club, in the City of Buena Park. The holiday event was Casino themed and included plenty of games such as three card poker, black jack, craps, and roulette. Each member and guest was given one raffle and drink ticket along with a \$500 cash-in ticket for casino chips to begin table play. Delicious hors d'oeuvres were being passed out by venue hosts and a side table full of crackers, cheese, fruit, and shrimp were available for snacking. Zaki Mustafa, ITE International President, was present at the holiday event and shared a quick two minute ITE Promo toward working together and promoting knowledge to our communities for the benefit of society. After Zaki's presentation, the three organizations (ITE SoCal, OCTEC, and RSBITE) announced their individual raffle prize giveaways. Many great prizes were up for grabs such as restaurant/home improvement gift cards, one watch, two Samsung Galaxy tablets, and a final grand prize of a two night stay in Las Vegas, generously provided by the Casino rental company. Socializing and table play continued until the end of the event.

In summary, the First Annual Holiday Mixer event was a success! The three organizations sincerely thank all the wonderful sponsors who contributed to make this holiday event possible for our members and friends. ITE SoCal, OCTEC, and RSBITE look forward on joining forces again next year.



*Student Chapter Activities during this reporting period:*

The Riverside/San Bernardino Section is a Platinum-level group contributor to the Student Endowment Fund, and also boasts in its membership the top two individual contributors. Its Board believes strongly in the Fund's mission to educate future engineers, planners, and other professionals about the field of transportation engineering. All current Section Board members have either donated individually to the Fund, or have pledged to do so this year. To further the Fund's mission, the Section has announced a fund drive to match its members' contributions to the Endowment Fund this year, through June 30, 2014 dollar for dollar.

Also to our strong support of the Fund, the Section has undertaken other student initiatives such as the following:

- Initiating a Section scholarship last year
- Funding the purchase of traffic data collection equipment for the Cal Poly Pomona student chapter
- Donating space for student chapters to fundraise at the Section's vendor show
- Sponsoring and speaking at local student chapter meetings

*Awards Presented during this reporting period:*



George Parmenter  
(RSBTEA Founding Member)



Gianfranco Laurie  
(Certificate of Appreciation)



Mohammad "Dr. Q" Qureshi  
(Certificate of Appreciation)



Anwar Wagdy, Deepak Ubhayakar, JR Morgan,  
Jim Harris, Dava Alcalá, Nathan Mustafa  
(RSBITE 50th Anniversary Celebration  
Committee Certificate of Appreciation)