

**MARCH 2009 MEETING:**  
*Engineers Without Borders*

**TOPIC:**

For this month's luncheon, we are pleased to have representatives from both the San Luis Obispo Professional and Cal Poly chapters of Engineers Without Borders discuss their current projects located in Kenya, Thailand, and Nicaragua. Engineers Without Borders (EWB), a non-profit humanitarian organization supported by ASCE, partners with disadvantaged communities to improve their quality of life through implementation of environmentally and economically sustainable engineering projects. Through partnerships, international projects empower the communities by enhancing local, technical, and entrepreneurial skills.

EWB SLO and Cal Poly's current projects include the improvement of design standards for interlocking compressed earth blocks, working with a hill tribe in Mae Nahm Kuhn, Thailand to improve a failing septic system while providing energy production, designing a health clinic in Camillo Ortega, Nicaragua, and assessing the possibilities for providing clean drinking water in Ilgori, Kenya.

**LOCATION:**

**AJ Spurs**  
1760 El Camino Real  
Grover Beach, CA



**DATE & TIME:**

Thursday, March 19<sup>th</sup>  
12:00 pm (Noon)

**MENU:**

Food will be your choice of tip sirloin, barbeque chicken or a vegetarian plate, and will include a beverage, soup, beans, salsa, salad, rice pilaf, bread and a root beer float.

**RESERVATIONS:**

Seating is limited to 50 participants. Please sign up by 1:00 pm Friday, March 13<sup>th</sup>, at the Branch web site ([www.asceslo.org](http://www.asceslo.org)). Please attend the luncheon if you sign-up – some restaurants will charge the Branch for every seat we reserve, regardless of the actual attendance. If you have specific dietary restrictions or have questions, please contact Tom Zehnder at (805) 544-4011 or by email at [TomZ@wallacegroup.us](mailto:TomZ@wallacegroup.us). The cost is \$20 for members or guests and \$10 for student members.

Visit the ASCE Website at: [www.ASCESLO.org](http://www.ASCESLO.org)

**PRESIDENTS PERSPECTIVE:**  
*A Higher Hurdle for Aspiring Civil Engineers*

The goal after graduating with my Bachelor of Science in Environmental Engineering was clear – get two years of qualifying experience and four supervising professional engineers to support me as references so I could qualify for the professional engineering exams as soon as possible – before I forgot how to study, before I got “comfortable” in having a job, before I started thinking about having a family. After receiving that lovely letter in the mail (and squealing of course), I breathed a sigh of relief – no more tests or requirements, just send in some dough every two years and I can continue to put those two letters after my name. But with the efforts of advocates of ASCE Policy 465, it looks like the story may be different for engineering graduates of the future.

ASCE Policy 465 seeks to expand on the current body of knowledge required to achieve licensure as a civil engineer by requiring additional education beyond the bachelor's degree as well as appropriate experience guidelines for the workplace, and related education and experience standards. The Policy recognizes that the civil engineering profession is undergoing significant, rapid, and revolutionary changes that have increased the body of knowledge required of the profession, include the following:

- Globalization has transcended the historically recognized worldwide geographic boundaries primarily as a result of enhanced communication systems.
- Information technology continues to make more information available; however, the analysis and application of this information is becoming more challenging.
- Complex systems are requiring integration of our knowledge and skills outside of traditional sub-discipline focus.
- The diversity of society is challenging our traditional views and increasing our need for improved interpersonal and communications skills.
- Many clients are searching for leadership in new management approaches that equitably manage risk as well as improve cost, quality and safety performance.
- New technologies in engineering and construction are emerging at an accelerating rate.
- Enhanced public awareness of technical issues is creating more informed inquiry by the public of the technical, environmental, societal, political, legal, aesthetic, and

(Continued on page 3)

## REMEMBERING DR. EDWARD SULLIVAN



Dr. Edward Sullivan, F.ASCE, Past-President of the San Luis Obispo Branch of ASCE (2005-2006) died February 16 from complications relating to cancer. He was 64. Dr. Sullivan was a Professor in the Civil and Environmental Engineering Department and the Associate Dean of Engineering for Research and Graduate Programs at Cal Poly. Dr. Sullivan's technical specializations were traffic analysis and modeling, evaluation methods, and traffic collision modeling.

Dr. Sullivan joined Cal Poly in 1989 and played a central role in development of the Civil and Environmental Engineering Department, including serving as Chair of the Department from 1995-1998. Dr. Sullivan received both his bachelor's and master's degree in civil engineering from M.I.T. and his Ph.D in transportation engineering from UC Berkeley. He also held a Master's in Business Administration from John F. Kennedy University.

Before coming to Cal Poly, Sullivan worked as a research engineer and professor at UC Berkeley's Institute of Transportation Studies for 18 years. He won numerous awards for his work in transportation engineering and in 1997, he won the ASCE Urban Transportation Division's "Best Paper" award for an article he published in "Journal of Transportation Engineering."

In 2001, Sullivan was honored with Cal Poly's Litton Award for excellence in research and development. Sullivan was again awarded "Best Paper" in 2005 by the Transportation Research Board Committee on Safety Data, Analysis and Evaluation. Dr. Sullivan was recently elected to Fellow membership status in ASCE.

With a career that spans more than 30 years, Ed had been a lecturer at Northern Jiaotong University (also known as Beijing Jiaotong University) and a visiting professor at the Universidad Central de Venezuela. He traveled the world enthusiastically, and was proud to maintain dual citizenship in the U.S. and in Ireland.

"Ed was an outstanding scholar, teacher and humanist," said Daniel Walsh, associate dean for the College of Engineering. "He was a calm voice at the center of every storm. He fought a very brief and unfair battle with cancer."

"Ed Sullivan was a great member of the university community. During his long tenure at Cal Poly, he contributed so much, as a mentor, teacher, scholar and valued colleague," said Cal Poly President Warren Baker.

"Ed was a great scholar and a true gentleman in every way," said Mohammad Noori, dean of the College of Engineer-



ing in a prepared statement. "I consider myself fortunate to have had the opportunity to work with Ed for over three years. Ed was a very kind person who was always willing to give his time and knowledge to help others."

Sullivan is survived by his wife, Donna and his two daughters. Ed is remembered fondly for his overall generosity and folksy charm that was backed up with the utmost of substance.

A memorial reception will be held at Cal Poly on March 17, 2009 to honor Dr. Sullivan's professional contributions and achievements. Members of the local ASCE Branch are most welcome to attend this celebration of Ed's life (appropriately scheduled for St. Patrick's Day). The reception will be held in the Advanced Technologies Laboratories Building (building #007) from 1:00-2:30.

~ Jim Hanson

## K-12 Outreach Succeeds!



One group from Lopez High School whose structure held 57 textbooks!

Volunteers reached out this month to help out in local classrooms and succeeded in spurring children's interest in civil engineering! During February 23-27, Branch members visited schools throughout the County and described the endless possibilities of a civil engineering career. After a short presentation, students participated in a contest where each group built a set of columns (materials: 5 notecards, 5 paperclips) and tested their ability to withstand loading (i.e. stack of textbooks!). Thank you to all those who volunteered! Look for upcoming K-12 Outreach Program announcements for future opportunities to get involved.

## 2009 San Luis Obispo Branch Awards Program

It's time to nominate outstanding projects and professionals for this year's San Luis Obispo Branch Awards Program! This year we will be modeling the Los Angeles Section's Awards Program to ensure our outstanding projects and professionals have a chance to be recognized at the section and region levels. The categories for nominations are as follows:

- Outstanding Government Civil Engineering Project
- Outstanding Private Sector Civil Engineering Project
- Outstanding Sustainability Project
- Outstanding Architectural Engineering Project
- Outstanding Civil Engineer in Government
- Outstanding Civil Engineer in Private Sector
- Outstanding Life Member Civil Engineer
- Outstanding Younger Civil Engineer
- Outstanding Faculty Advisor
- Outstanding Practitioner Advisor
- Outstanding Civil Engineer in Legislative Activities
- Outstanding Civil Engineer in Community Service
- Excellence in Journalism

Nominated projects shall be located within the boundaries of the Los Angeles Section and nominees shall be Section members, except for the Journalism award, located in the San Luis Obispo County and Northern Santa Barbara County areas, and not submitted to other branches for award consideration. Nominations should provide all the pertinent information relative to the project or person. Please provide a cover letter indicating the intended award and a brief overview of the nomination. Projects must have been completed between January 1, 2008 and April 24, 2009.

Nominations (one copy) in electronic format, CD/DVD, or hard copy are due April 24, 2009, to allow time to review and select the winners and obtain the awards. Nominations should be sent to the address or email in the letterhead above. There are no specific requirements for the format of the award submission. Nominations should include all pertinent information to provide the best possible description of the nominee. Those submitting are encouraged to provide easily reproducible nomination documents.

Award winners will be announced at our June meeting, and invited to present their projects during subsequent monthly luncheons.

Please recognize the good work that civil engineers do for the society and the public and nominate projects and individuals that deserve recognition. Please call or email me if you have any questions.

~ Courtney Howard

## PRESIDENT PERSPECTIVE (CONT.)

*(Continued from page 1)*

financial implications of engineering projects.

- Civil infrastructure support within the United States is rapidly changing from a focus on development and operation, to the innovative renewal, maintenance, and improvement of existing systems, and the visionary development of new systems.

These changes have created a need for civil engineers to have simultaneously greater breadth of capability and specialized technical competence than that required of previous generations. For example, many civil engineers must increasingly assume a different primary role from that of designer to that of program, project or team leader.

With advocates working to establish a framework for young engineers to be successful in meeting these new challenges, what does it mean for those of us that may be grandfathered in and exempt from new requirements? It means we'll need to do more than just send in our license renewal fees every other year in order to remain effective and competent engineers with these changes. We'll need to make the effort on our own to keep up on and consider new engineering technologies, and perhaps step outside our comfort zone in developing our leadership and interpersonal skills and learning and utilizing new information technology. By participating in local ASCE branch activities, we are already taking a big step in making that effort.

~ Courtney Howard

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