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AMERICAN COUNCIL OF ENGINEERING COMPANIES
of Tennessee

1968

40th ANNIVERSARY

2008

The Voice

THE VOICE OF TENNESSEE'S ENGINEERING COMPANIES

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Mission Accomplished in Honduras

by Bob Watson, EIT
Askew Hargraves Harcourt & Associates

Editor's Note: *As ACEC of Tennessee prepares to celebrate the 2008 Engineering Excellence Awards on March 4, civil engineer Bob Watson shares his experience working on a project in Honduras. It's a story that reminds us of how engineering truly changes lives.*

It was what Peace Corps volunteers call my "defining Peace Corps moment." It was the day in February 2005 when a new potable water system was inaugurated for the village of El Diviso in Honduras.

During my four years working as a Water & Sanitation Peace Corps Volunteer in Honduras, I worked on dozens of projects, large and small. However, El Diviso has special meaning for me.

When I first arrived in Santa Barbara, Honduras, in May 2003, the construction of the El Diviso project was already underway.

Two or three times a week, my Honduran counterpart Abelardo Carcamo, the director of a local non-profit agency to which I was assigned, picked me up at 4:30 a.m. Off we would go, driving 90 minutes up dirt mountain roads to El Diviso, where the men and a few women and children of the village waited with picks and shovels in hand. They would cram into the bed of the pickup, and we would go up the mountain, driving as close as possible to the worksite. Then we hiked about 30 minutes until we reached our destination. Abelardo and a couple of the men went back and forth hauling materials as I directed and coordinated the construction.

Project funding came from the Rotary Club of Minnesota, which paid for the pipes, valves, cement, and other construction materials. The villagers were responsible for the

back-breaking work of digging trenches and hauling materials on their shoulders up steep trails. Most projects had conduction lines of 3 to 6 kilometers; however, El Diviso would take its water from a spring located 12 kilometers away across rugged terrain. It was the only source available to them that wasn't contaminated and of sufficient elevation for a gravity fed system to work.

Series of Setbacks

The first setback was a big one. Many months into construction, Abelardo was working in another community. On his way home, he lost control of the pickup, plunged over a precipitous drop-off and crashed. Somehow he survived. After many weeks in the hospital, he recovered, although he could not return to El Diviso. Progress halted. We no longer had any transportation or logistical support. However, we regrouped and forged ahead. I started going up to El Diviso on the

(continued on page 2)



Bob Watson hauled lots of cement while working on the El Diviso water project in Honduras.

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Everyone Can Be a Winner on March 4

by James D. Morinec, PE
President, ACEC of Tennessee

Tuesday, March 4, offers three winning opportunities for the engineering profession in Tennessee.

In the morning, members of ACEC of Tennessee and TSPE will jointly participate in *Engineers' Day on the Hill*. This annual event is an opportunity to meet with our state legislators and express our position on issues that impact the engineering profession and the safety and welfare of Tennesseans. If you haven't participated in the past, please



James D. Morinec

consider it this year when it's particularly important that we express the importance of adequately funding transportation infrastructure and programs to maintain and improve the quality of the living and working environment in Tennessee. TDOT's funding mechanisms are basically fixed and have been depleted by the increasing cost of materials. It has reached the point that the Department can no longer provide matching funds for all of the available federal funding programs. Tennessee's excellent infrastructure is one of the major factors attracting new industries to the state. The deterioration of this system will

impact all elements of the state's economy, not just the engineering profession. It is crucial that we carry this message to legislators on March 4.

The **Senior Principals' Forum** is scheduled in the afternoon. Facilitated by David Davidson, PE, president and CEO of Barge Waggoner Sumner and Cannon, this event provides an open forum for senior principals to exchange views and discuss issues that impact our businesses. One topic for discussion will be the proposed change that would require a Bachelors degree plus thirty credit hours of engineering education to qualify for professional licensure. This could result in inconsistent requirements among the states, making it impossible to administer and placing firms with multi-state operations at a significant disadvantage. There are certainly pros and cons to this proposal, but we need to establish consensus to either support the change or defeat it.

On the evening of March 4, we will learn the outcome of the judging for the 2008 *Engineering Excellence Awards*. I urge you to be there. Come share proudly in the accomplishments of our profession with your clients and enjoy an evening with your colleagues.

Engineers' Day on the Hill, the *Senior Principals' Forum* and the *Engineering Excellence Awards* banquet: March 4 will be a day filled with opportunities to celebrate our profession and to impact its future.

Honduras continued from page 1

"bus," a flat-bed truck with a tarp stretched over the top on which the campesinos of the area would load themselves, their provisions, chickens, and children for transport to and from Santa Barbara. I stayed in El Diviso for a week at a time, living with a family in their one-room house. There were two beds; I slept in one and the six of them slept in the other or on the floor.

We now walked several hours before work could begin and pipe was carried on our shoulders or a mule, if it could be borrowed. Morale lagged. The word in neighboring villages was that El Diviso would never finish its water project. People in town began to believe it. Accusations flew and people stopped wanting to work. I called a community meeting to iron things out, but my attempts failed when the meeting degenerated into a free-for-all. After having no contact with them for about two weeks, I was visited by a community delegation asking me to come back and help them finish the project. I did.

After many more months of toil, the line almost reached the town. The people were opening the nearest valve to bathe and wash their clothes. One day after a heavy rainstorm, the water stopped

flowing. The rains had caused a mudslide at the top of the line where above-ground iron pipe crossed some difficult terrain. The pipes had been washed away and buried. The intake structure at the source was under a foot or two of mud and several large trees lay over the route of the line. I managed to scrape together money to hire someone with a pickup to haul replacement material that the Rotary Club agreed to buy. After a few weeks, the water was flowing again. Soon tap stands had been installed at every house, the culmination of almost three years of work for the community.

Clean Water at Last

Inauguration day was festive in El Diviso. Townspeople invited family and friends from neighboring villages. There were musicians and food, and even a few nips from the bottle of chicha, the local version of white lightning. Rotarians from Santa Barbara and politicians from the area were on hand to claim part of the credit for this beautiful new water system. However, the wonderful, humble and generous people of El Diviso deserved the credit. They persevered through years of hard work, disappointment, and difficulties. The people of this poor, little mountain village had clean drinking water.

The Event of the Year: EEA on March 4

by David Harrell, PE

Chair, Engineering Excellence Awards Committee

With entries from around the state and a keynote speaker who is guaranteed to both entertain and challenge your thinking, this year's annual statewide *Engineering Excellence Awards* (EEA) banquet promises to be one of the best ever.



Dr. John Petersen

The entries are from 14 firms throughout the state, ranging in size from 20 full-time employees to global capabilities, and representing all entry categories as well. The keynote speaker is Dr. John D. Petersen, president and chief executive officer of the University of Tennessee Sys-

tem which includes the flagship campus at Knoxville, campuses in Chattanooga and Martin, the Health Science Center in Memphis, the Space Institute in Tullahoma, and statewide institutes of agriculture and public service. Dr. Petersen became the president of UT on July 1, 2004 and is UT's 23rd President.

The project accomplishments of our Tennessee engineering community are simply amazing. They include: transit and highway infrastructure improvements; electrical systems improvements; bridge renovations and replacements; airport improvements; environmental site cleanup; boundary surveys; water plant renovations; a stream realignment and restoration project; a wetlands study; large scale stadium additions; and drainage studies.

This will be the most talked about engineering

event of the year. The date is March 4 and the place is the Hilton Nashville Downtown. Plan now to reward the top performers in your firm by making plans for them to attend this grand gala to see "their" projects in the show.

Note: The next newsletter edition will be a joint March/April issue. It will include extensive coverage of the Legislative Reception on March 3, *Engineers' Day on the Hill*, the *Engineering Excellence Awards* banquet, and other March activities.

Thank You to EEA Sponsors

(as of January 28, 2008)

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For sponsorship information,

please contact Judy Logue at

615-242-2486 or

jlogue@tnec.org.

2008 EEA Project Entries

Alcoa Water Treatment Plant; *Client:* City of Alcoa; *Location:* Alcoa, TN; *Firm:* Smith Seckman Reid, Inc.; *Category:* Water & Wastewater

Ashland City Water Plant Renovation & Additions; *Client:* City of Ashland City; *Location:* Ashland City, TN; *Firm:* Hart Freeland Roberts, Inc.; *Category:* Water & Wastewater

Biloxi Bay Bridge Replacement Materials Testing Management; *Client:* Volkert & Associates, Inc.; *Location:* Biloxi, MS; *Firm:* K.S. Ware & Associates; *Category:* Special Projects

Historic Renovation of the Market Street Bridge; *Client:* Tennessee Department of Transportation; *Location:* Chattanooga, TN; *Firm:* Parsons Transportation Group; *Category:* Structural Systems

Inbound Roadway Improvements; *Client:* Memphis-Shelby County Airport Authority; *Location:* Memphis, TN; *Firm:* Pickering Firm, Inc.; *Category:* Transportation

Laurel Snow Boundary Survey; *Client:* Tennessee Department of Environment & Conservation; *Location:* Dayton, TN; *Firm:* Hart Freeland Roberts, Inc.; *Category:* Surveying / Mapping Technology

Love Creek Realignment and Restoration; *Client:* Wal-Mart; *Location:* Knoxville, TN; *Firm:* S&ME; *Category:* Water Resources

Mack Hatcher Parkway Context Sensitive Design; *Client:* Tennessee Department of Transportation; *Location:* Franklin, TN; *Firm:* Wilbur Smith Associates; *Category:* Transportation

McEwen Interchange; *Client:* City of Franklin / Tennessee Department of Transportation; *Location:* Franklin, TN; *Firm:* Gresham, Smith & Partners; *Category:* Transportation

Metal Management: Engineering Revitalization; *Client:* Metal Management, Inc.; *Location:* Nashville, TN; *Firm:* EnSafe Inc.; *Category:* Environmental

Morris Boulevard Program Management; *Client:* City of Morristown; *Location:* Morristown, TN; *Firm:* Lamar Dunn & Associates, Inc.; *Category:* Special Projects

Nashville International Airport Master Drainage Study; *Client:* Metropolitan Nashville Airport Authority; *Location:* Nashville, TN; *Firm:* PBS&J, Inc.; *Category:* Small Projects

Neyland Stadium - New Club Level and Concourse; *Client:* McCarty Holsaple McCarty, Inc.; *Location:* Knoxville, TN; *Firm:* Ross Bryan Associates, Inc.; *Category:* Structural Systems

Runway Safety Area at Nashville International; *Client:* Metropolitan Nashville Airport Authority; *Location:* Nashville, TN; *Firm:* CTE; *Category:* Transportation

Vanderbilt TVC Highbay Generator Project; *Client:* Vanderbilt Medical Center; *Location:* Nashville, TN; *Firm:* Smith Seckman Reid, Inc.; *Category:* Building / Technology Systems

Wetlands Investigation: A Study in Cost-Avoidance; *Client:* U.S. Navy, Naval Facilities Engineering Command Southeast; *Location:* Pensacola, FL; *Firm:* EnSafe Inc.; *Category:* Studies, Research or Consulting Engineering Services

CALENDAR

FEBRUARY

16

Engineering Day

Adventure Science Center,
Nashville

FEBRUARY

17-23

Engineers' Week

MARCH

3

Legislative Reception

6:00 p.m. - 8:00 p.m.

Sheraton Nashville

Downtown

MARCH

4

Engineers' Day on the
Hill

9:00 a.m. - 1:30 p.m.

State Capitol

4th Annual Senior

Principals' Forum

2:00 p.m. - 5:00 p.m.

Hilton Nashville

Downtown

Engineering Excellence

Awards Banquet

6:00 p.m. - 9:00 p.m.

Hilton Nashville

Downtown

MARCH

5

Board Meeting

8:30 a.m. - 11:30 a.m.

Hilton Nashville

Downtown

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WELCOME, New Partner Program Member

Bechtel Power Corporation

5275 Westview Drive
Frederick, MD 21703
Riley Bechtel,
Chairman & CEO
www.bechtel.com/powercareers

Bechtel's diverse portfolio encompasses energy, transportation, communications, mining, oil and gas, and government services. It has projects in dozens of locations worldwide, from Alaska to Australia. *Engineering News-Record (ENR)* has named Bechtel the top U.S. construction contractor for nine straight years.

FROM THE EXECUTIVE DIRECTOR

Put Engineers in the Spotlight

by Candy Toler
Executive Director, ACEC of Tennessee

The General Assembly is moving into high gear. With tax collections below expectations, the prospect of new programs is not good. However, don't expect a lackluster session. As I review legislation introduced so far this year (over 2,000 bills!), I am intrigued by the variety of topics, ranging from the definition of "candy" to setting the date for public schools to begin each year. In addition to the proposals that are flooding in, bills introduced



Candy Toler

last year may be reconsidered, including establishing a practice act for interior designers, environmental/water issues, and transportation funding.

In the midst of all this, ACEC needs your participation at a **Legislative Reception** on March 3 and at **Engineers' Day on the Hill** on March 4. These two events put engineers and the issues of concern to them in the spotlight. While we do not know all of the bills that will be proposed this session, we do know that there are issues with the potential to affect public health and safety. Both events, which

drew over 60 engineers last year, offer you the opportunity to "build bridges" with state decision makers, promote the value that engineers bring to every Tennessee community, and address issues that impact public safety and the engineering profession.

The Legislative Reception at the Sheraton, coordinated by the Nashville Chapter, begins with an issues briefing at 5:15 p.m.; our guests begin arriving at 6:00 p.m. *Engineers' Day* begins at 9:00 a.m. in the Old Supreme Court Chamber (first floor of the State Capitol) with an issues briefing and ends after lunch. To register for *Engineers' Day*, you may use the registration form on www.acectn.org, (*What's New* tab) or just send me an email (ctoler@tnec.org) that you plan to participate. Please send the names of your state representative and senator, and whether you will have lunch with us. If you know a legislator well (someone you grew up with or went to school with, etc.), I would really like to know that.

This Spring: ACEC's Annual Conference and Legislative Summit will be April 27-30 in Washington. This is another occasion for engineers to promote their profession with Tennessee's Senators and Representatives. More information is available at www.acec.org