

# The Voice

JULY/AUGUST 2010

# Voice

**ACEC**  
AMERICAN COUNCIL OF ENGINEERING  
COMPANIES OF TENNESSEE

THE VOICE OF TENNESSEE'S ENGINEERING COMPANIES

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## Rockslide! Problem Solved after 5 Months of Work

by *Vanessa Bateman, PG, PE*  
*Geotechnical Engineering Section*  
*Tennessee Department of Transportation*

On November 10, 2009—following an intense rainstorm—a major rockslide occurred along US 64 in Polk County at mile marker 17.6 in the Ocoee River Gorge near the Ocoee 2 Dam. It obliterated the roadway; the main slide mass stopped in the Ocoee River. Fortunately, no one was injured. However, the road was completely shut down for 5 months as TDOT and its contractors fought to



**Vanessa Bateman**

remove additional unstable masses of rock and to stabilize the slope before any further damage could occur. Complicating the repair was a large unstable mass on the east side of the existing slide. This unstable mass had to be removed before it slid down beside the previous slide and potentially destroyed the concrete-faced, timber crib Ocoee 2 Dam built in 1912.

### Cameras Capture the Event

Amazingly, as the massive rockslide happened, it was caught on film by local news

*A massive rockslide on November 10, 2009, closed US 64 at mile marker 17.6 in Polk County for 5 months.*

camera crews that were on-site due to a smaller rock fall that had occurred earlier in the day. This smaller rock fall did not appear, at first, to present a danger of a larger slide. However, as the day developed, the rock cut began to make popping and cracking noises. The area was evacuated. Shortly after everyone was out of harm's way, the large slide occurred. Images of the slide were broadcast on national news.

### Solution to a Big Problem

The rockslide was primarily a plane-shear type failure in a type of partially metamorphosed sandstone called a metagreywacke/meteconglomerate. Because there was little ditch clearance, no ability to re-route the roadway, and a historic dam in the area, re-cutting the entire slope to allow for a huge rock fall catchment ditch was not feasible. Analysis of the slope indicated that

*(continued on page 2)*



# Steps to Goal Line Begin at Annual Meeting

by Steve Bostic, PE  
President, ACEC of Tennessee

As our organization begins its new year, it's time to consider our goals for the next 12 months. At the recent Board retreat, we reviewed last year's goals and discussed goals for the coming year.



Steve Bostic

**Goal #1:** Membership retention and recruitment will continue to be a priority. During the difficult economy of the past two years, some member firms "tightened their belts" and dropped their membership. Mergers and acquisitions have also been a factor in the membership decline. We must continue to emphasize and communicate the value of ACEC membership to current and prospective members.

**Goal #2:** Local Chapters need to be strengthened. A key focus will be continued development of consistent by-laws for all Chapters. Quarterly conference calls between Chapter presidents and Board members will be conducted to improve coordination and share ideas. A clear path to the Chapter president

post will be developed to ensure seamless leadership transition within local Chapters. Chapter presidents will meet at the Annual Meeting to share ideas and discuss challenges they may face regionally.

**Goal #3:** The organization and its members must continue to keep abreast of what happens on Capitol Hill. Each year, new legislation is introduced that can directly impact our profession and our bottom lines. Candy Toler does an excellent job keeping up with proposed legislation and its movement through the various committees and processes. She keeps members informed regarding the sponsor(s) and the reasoning behind introduction of the legislation. She works with other organizations that the legislation may impact and coordinates with their leaders to develop strategies to address the proposed bills. However, members must get involved. It is especially important to participate in *Engineers' Day on the Hill*, March 8, 2011.

The first steps toward the goal line in each of these areas will be taken at the Annual Meeting. I encourage you to attend; the program is going to be excellent thanks to the joint efforts of ACEC of Tennessee and TSPE Board members, staff members Candy and Judy, and members. See you there.

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## Rockslide *(continued from page 1)*

re-cutting the slope would not eliminate the possibility of future large rockslides. Blocks from the slide were massive; the largest was estimated 45' x 30' x 20'. This meant that a rock fall fence was not capable of stopping a slide.

Therefore, TDOT chose to go with removal of the unstable material by means of hand scaling, blast scaling, trimming and blasting back to a point where the slope could be successfully bolted in place, preventing the massive boulders and future potential slides from starting to move. The operation had to be carefully done. Blasting was closely monitored and equipment could not be located beneath parts of the slope for a large portion of the project. This was necessary to prevent the second slide from mobilizing any further and threatening the dam and to ensure worker safety. The entire slope was scaled by hand before trimming, blast scaling and larger scale blasts were allowed. Every step was closely monitored and evaluated as the project contin-

*The rock slope was cleared and secured with 11,250 linear feet of No. 11 rock bolts. After 5 months of work by TDOT and prime contractor, Blalock Construction, and subcontractor, Hayward Baker, the roadway reopened on April 14, 2010.*

ued. Blast plans were continually re-adjusted based on this evaluation.

After scaling and blasting operations were completed, No. 11 rock bolts were installed into the slope. These were 15 feet to 45 feet in depth and intersected potential future slide planes. The drilling and bolt installation continued on a 24 hour schedule until the project was completed. This \$2M project installed 11,250 linear feet of rock bolts and took 5 months to complete. US 64 reopened on April 14, 2010.



# Transportation Partnering Committee: Focus on Funding & Planning

by Stan King, PE  
Florence & Hutcheson  
Chair, TDOT / ACEC of Tennessee Partnering  
Committee

Twenty-one representatives of the Tennessee Department of Transportation (TDOT) and ACEC of Tennessee attended the April 15 meeting of the TDOT / ACEC Partnering Committee. Paul Degges, chief engineer at TDOT, opened the meeting by introducing Joe Carpenter, who is the new Bureau Chief of Environment and Planning at the Department.



Stan King

TDOT let \$1.2 billion in contracts last year. It obligated \$1.5 billion in contracts plus obligated all available funds from the American

Recovery and Reinvestment Act (ARRA) and all federal money was matched. The ARRA funds allowed TDOT to get some backlog cleared and focus on the future. Under the continuing resolution, TDOT stands to receive additional federal funding due to past funding levels that included earmarks that have already been allocated.

However, the state budget remains a concern. TDOT is considering elimination of as many as 200 positions; some positions are current vacancies. Design, Structures and Materials Divisions are subject to significant cuts. TDOT will continue to use consultants with on-call contracts and may expand scope to include a broader range of services for specific projects.

## Long-Range View

Long-term federal funding (reauthorization) will likely shift resources from traditional highway investments to transit and multi-modal investments. TDOT is working to advance Tennessee's position in the high speed rail corridor between Louisville, Nashville and Atlanta. Therefore, TDOT is looking for opportunities—such as partnership with Norfolk-Southern's Crescent Corridor—to be prepared for any shifts in funding priorities.

TDOT also wants to further develop the interstate program and build off the corridor studies for I-40/I-81, I-75 and I-24/I-65. The Long-Range Transportation Plan addresses strategic corridors and 10-year strategic investments. The goal is to fill the gaps in major corridors and use the planning process to drive projects.

The meeting concluded with a demonstration

of proposed procedures for electronically sealing plans. There are several issues that need to be addressed and TDOT requested feedback and assistance from ACEC of Tennessee. David Donaho (SSR), Rick Gafford (Fisher & Arnold), and Jeff Mize (Wilbur Smith Associates) volunteered to work with TDOT on a sub-committee to further investigate the technology.

Detailed minutes of the April 15 meeting are available on the ACEC of Tennessee website. Please note: Paul Degges, Jeff Jones, Jim Waters and other TDOT officials are scheduled to make presentations at the ACEC of Tennessee / TSPE Joint Annual Meeting on Friday, August 27, from 9:00 a.m. to 12:00 noon.

## Member News

- **Nathan A. Brown, PE, and David Korda, PE** have joined **Barge Waggoner Sumner & Cannon, Inc. (BWSC)**. Brown is Manager of Electrical Services, responsible for electrical services of the industrial and facilities groups in all locations. Korda is Manager of Structural Design Services with responsibility for oversight of all structural activities of the industrial and facilities group in Knoxville. In addition, **Russell D. Moorehead, PE**, has joined BWSC in Chattanooga as Senior Project Engineer, responsible for water and wastewater projects.
- **EnSafe Inc.** won the large-employer category (61+ employees) in the *Memphis Business Journal's* 30th annual Small Business Awards. The firm's President and CEO, Phillip G. Coop, CHMM, accepted the award in a ceremony at The Peabody in May.
- **James N. Speakman, PhD, PE**, recently retired from **EnSafe Inc.** after a distinguished 28-year career with the firm. To honor Dr. Speakman, his image and name will be added to the wall of Distinguished Engineers and Builders at the Tennessee Engineering Center, Nashville.
- **Larry Ridlen, PE**, senior transportation engineer and infrastructure practice leader at **Gresham, Smith and Partners**, has been installed as a member of the National Board of Directors of the American Society of Highway Engineers (ASHE).
- **Gresham, Smith and Partners (GS&P)** received two awards in the 35th Annual Metropolitan Nashville Historic Commission Preservation Awards. GS&P was recognized for work in the Religious Buildings category for renovation of the Fall School Building for the Church of Scientology. It was honored in the Commercial Buildings category for work on the renovation and conversion of the American Trust Building into Hotel Indigo.

## CALENDAR

### AUGUST

# 25

Tennessee Engineering

Foundation Golf

Tournament

King's Creek Golf Club

Spring Hill, TN

### AUGUST

# 25 - 27

ACEC of TN / TSPE

Annual Meeting

Embassy Suites

Murfreesboro, TN

### OCTOBER

# 17 - 20

ACEC Fall Conference

El Conquistador

Resort & Spa

Las Corabas, Puerto Rico

Tennessee Engineering Center  
800 Fort Negley Boulevard  
Nashville, TN 37203

Return Service Requested

## JULY/AUGUST 2010

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## Thank You, PAC Contributors

Thanks to the following individuals for their contributions to the Tennessee Professional Engineers PAC. It's not too late to contribute!

Steve Bostic, Lamar Dunn & Associates  
Harold Cannon, Cannon & Cannon  
Steve Field, Stantec  
Ed Hargraves, Askew Hargraves Harcourt & Associates  
David Harrell, Vaughn & Melton  
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Mike Pohlman, Pickering  
Chuck Saunders, Fisher & Arnold  
Mike Stomer, S & M E  
Jerry Stump, Wilbur Smith Associates  
Candy Toler, ACEC of TN  
Tim Verner, Fisher & Arnold  
John Wimberly, I C Thomasson Associates

## FROM THE EXECUTIVE DIRECTOR

### Recap, Preview & Appeal

by Candy Toler  
Executive Director, ACEC of Tennessee

The 106th Tennessee General Assembly adjourned in early June after passing a budget that was not pretty; lagging tax receipts necessitated some deep cuts. The best news was Tennessee's selection to receive Race to the Top federal education funding!



Candy Toler

The waning days of the legislative session were filled with efforts to reconcile differences between bills passed in the House and bills passed in the Senate. Legislation to continue the State Architects' and Engineers' Board and several other licensing boards got caught up in the process and will have to be addressed when the legislature comes back in January. For information about legislation or the General Assembly, go to <http://www.legislature.state.tn.us> or send me an email ([ctoler@tnec.org](mailto:ctoler@tnec.org))

#### Annual Meeting Preview

The joint annual meeting of ACEC of Tennessee and TSPE will be August 25-27 at the Embassy Suites in Murfreesboro. This is a great opportunity: 16 hours of professional development will be available. Topics include Ethics, Sustainable Site Design, FAR Accounting Requirements, LEED Challenges for HVAC, AASHTO Audit Guide, TDEC updates and more. TDOT officials will give an update the morning of August 27. There's also the Tennessee Engineering Foundation's Golf Tournament on August 25 at King's Creek Golf Club in Spring Hill. Be sure to register for the meeting by August 18.

#### PAC Appeal

I know that 2010 is an election year because the telephone calls and solicitation letters from legislators and candidates are arriving. Your PAC needs your help. The auction at the Annual Meeting is one way we raise PAC money. It's a fun event because we never know what will happen. For example, once we raised over \$2,000 when a visiting dignitary from Arkansas was willing to teach auction participants the Razorback hog call. What will happen this year? Find out! Contribute an auction item; participate in the August 26 auction.