

### TECHNICAL ARTICLE by Christopher Speck, [Oldcastle Precast](#) Oldcastle Precast Provides Box Culvert for Design-Build Project at Fort Belvoir

[Fort Belvoir](#) on the Potomac River in Northern Virginia is within 12 miles of Washington, D.C. The U.S. Army installation is strategically located and provides logistical, intelligence and administrative support to a diverse mix of commands, activities and agencies. Throughout its 93-year history one of its goals has always been to protect the environment. This commitment is reflected in its name--*Belvoir*--which in French means "beautiful to see."

The [U.S. Army Corps of Engineers](#) and general contractor Charles DeWeese Construction approached [Oldcastle Precast](#) in Fredericksburg, Va., for custom precast products for a design-build infrastructure project at Fort Belvoir. It focused on three areas:

1. Widening the main entrance road to the base
2. Upgrading the stream flow capacity
3. Installing an additional tunnel for an animal passageway



In total, 105 components were produced: 62 12' x 14' sections, 29 12' x 10' sections, and 14 wing walls. All were transported from Oldcastle's Fredericksburg plant. This amounted to approximately 1,320 tons of precast product.

As a result of the 2005 Defense Base Closure and Realignment Commission, Fort Belvoir

has experienced a substantial increase in the number of people stationed or employed there. The increase in the traffic in this heavily-traveled area required infrastructure upgrades at the base. A new culvert replaced two aging runs of 36-inch reinforced-concrete pipe. The structure was placed in two phases: one was completed in September 2010, and the second in January 2011. This allowed for the excavation and backfilling that needed to occur in order to move the road.



Tunnel with Steven Shelby of Charles DeWeese Construction Inc. inside. Steven Shelby stands in the 14-ft. tunnel that allows the large deer population in the area to pass safely under the roadway.

The stream bed upgrade required 172-linear feet of 12' x 10' skewed culvert. One of the features of the structure is the Tensar®-style geogrid wing walls, which stabilized the embankment.

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In keeping with its mission as environmental stewards, an additional 172-linear feet of culvert tunnel was installed to facilitate egress and ingress for the large population of white-tailed deer. It is 12-feet wide x 14-feet high, leaving plenty of open space and light for deer to cross safely under the roadway. A mix of crushed stone and an organic soil product on the floor simulates a more natural base for travel.

A spandrel-wall, commonly used in construction, filled in the entire area where the arches adjoin, and was cast-in-place by the general contractor. This was the only part of the concrete work not supplied by Oldcastle Precast.

"This was an interesting project in that the Army Corps of Engineers came to us with their concept of what they wanted to achieve. We developed an economical solution that accomplished their end goal. Our manufacturing efficiencies and expertise produced a quality product that will serve Fort Belvoir well into the future," said Britton Dovel, sales engineer.

# Member News

## President's Message



**Don Anger, PCAV President**

Thank you to all that attended the Annual Meeting on May 11 & 12 at Wintergreen Resort. If you did not attend, you missed a wonderful and informative meeting. I invite you to participate in the PCAV and attend its functions. I know you will walk away with valuable information by networking with the membership and guests at any function.

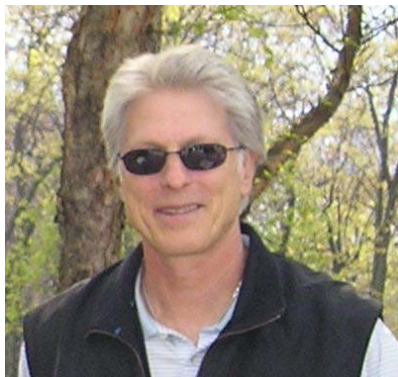
The three speakers at the Annual Meeting provided information on the state of affairs in Virginia and nationally. **Mal Kerley** updated us on the [VDOT Highway Construction Program](#); **John Layman** discussed the economic projections for Virginia; and **Dan Houck** talked about the [National Precast Concrete Association](#) and support for the affiliate members including PCAV.

Our relationship with VDOT, NPCA, and [American Concrete Pavement Association](#) makes us a very strong and envied state association.

We are officially out of the recession and recovering. I know that is no comfort, but the recovery is underway no matter how slow. Working together promoting Precast Concrete as the **standard for construction**, we can survive and eventually flourish.

Please call on any board member or me with ideas on how we can best serve the association and industry.

## Executive Director's Report



**Mark Singer, PCAV Executive Director**

The conclusion of the 2011 Virginia General Assembly finally saw Virginia pass some

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meaningful transportation infrastructure funding legislation. The transportation funding bills, which were overwhelmingly agreed to by both chambers, require at least 20 percent of the proceeds from the newly created Infrastructure Bank to be used to make grants to localities for transportation projects, with the remaining resources to be used to make loans to private or public entities for transportation projects.

The bills also authorize the issuance of approximately \$1.2 billion in [Transportation Grant Anticipation Revenue Notes](#) (GARVEEs). The proceeds from the GARVEE bonds will be used for transportation projects as determined by the [Commonwealth Transportation Board](#). In addition to the use of the GARVEE bonds, the bills also increase the amount of the Virginia Transportation Capital Projects Revenue Bonds to be issued from \$300 million to \$600 million over the next two fiscal years (totaling \$1.2 billion by 2013). These infrastructure bonds were the result of the transportation bill that passed the General Assembly in 2007.

The bills also increase the availability of dollars for the [Revenue Sharing Program](#), which is a dollar-for-dollar match program, from \$50 million to \$200 million, and increases the per-project cap from \$1 million to \$10 million. This is all very good news, but the solutions passed rely heavily on debt. The real solution to this problem requires new, long-term, sustainable revenue streams. We will have to wait longer for that solution to come to fruition.

[PCAV](#) continues to serve as the primary link between [VDOT](#) and the state's precast producers and industry allies. In furtherance of that goal, the PCAV once again hosted a joint VDOT meeting with key representatives from the Materials Divisions at VDOT on March 22nd in Richmond. The Department presented an update on matters of mutual interest, which touched on a number of subjects including post-installation pipe inspection, Load and Resistance Factor Design (LRFD) issues regarding pipe, drainage structures, box culverts, and retaining walls, the *Inlet Stake-Out Manual*, and pipe bedding requirements. The PCAV Executive Director also presented a summary of the legislative information highlighted above. Once again, both PCAV members and VDOT personnel thought the meeting was very informative and plans are underway to host a second meeting on **September 20, 2011** to continue the dialogue.

A large gathering of PCAV representatives attended the just-concluded PCAV annual conference held at [Wintergreen Resort](#) in the beautiful Blue Ridge Mountains. In addition to the great networking opportunities afforded by the conference, participants were treated to very informative presentations (See the Annual Meeting Recap below).

The Board of Directors re-elected the association's Executive Committee to a second one-year term. Congrats to **Don Anger** ([Americast, Inc.](#))--President, **Don Wagner** ([Hanson Pipe & Precast](#))--Vice President, and **Craig Whitten** ([East Jordan Iron Works, Inc.](#))--Secretary. A special thanks goes out to the hard-working Annual Conference Committee consisting of **Marie Derby** ([Essroc Cement](#)) and **Weldon Mitchell** ([Trelleborg NPC, Inc.](#)) for a job well done.

There have also been a number of leadership changes on the PCAV Board and Committee levels that are worth noting. **Christopher Speck** has replaced **Paul Sherman** as the Producer Director representing [Oldcastle Precast](#). And longtime Marketing Committee Chairman **Scott Crumpler** ([Americast, Inc.](#)) is passing his torch to **Randy Partin** ([Hanson Pipe & Precast](#)). Randy will do a great job in his new role, but the association would be remiss if we did not recognize and thank Scott for his many years of time and commitment to the organization during his lengthy term heading up the PCAV Marketing Committee. **Thanks Scott**, for the countless hours on the road traveling to exhibits, tradeshow and other industry events. Most importantly, thanks for representing our industry in such a professional manner all these years.

Finally the PCAV is happy to welcome our newest member, [Columbia Machine Inc.-Batching Division](#) and their representative **Stewart Luckman**, to the rolls of the PCAV.

## Annual Meeting Recap

The PCAV held its Annual Meeting on May 11-12, 2011, at the scenic Wintergreen Resort. The weather was perfect and the attendance was excellent.

Our event started with the annual golf outing at Devil's Knob. The winners are pictured below.



First place team: Nick Talley, MA Industries; Ed Wiles, Roanoke Cement; and Willie Clark, Oldcastle Precast



Second place team: Doug Keen, Columbia Machine; Tom Hartley, Rinker; Chris Speck, Oldcastle; Leo Jones, Insteel



Scott Crumpler (left) won the longest putt and Darrell Wilson had the longest drive.

Congratulations to all!

We continued with our reception at the stunning Blue Ridge Terrace followed by the always-popular buffet dinner in Pryors.

Our board meeting and general session were the highlights the next day. We were very fortunate to have members of VDOT at our meeting and the Chief Engineer with VDOT, **Mal Kerley**, delivered our first speech. He was informative and entertaining--a true PCAV partner-- and he received great reviews. Our next speaker was the current Chairman of NPCA, **Dan Houck**. It was great to have the national perspective at our meeting! The last speaker was **John Layman**, Director and Chief Economist for the [Virginia Department of Taxation](#). John did an excellent job describing the local conditions and outlook for our state. PCAV President **Don Anger** provided a few concluding words and thanked our members for their participation. All reviews for this meeting were excellent.

Stay tuned for information and dates on the 2012 Annual Meeting.

Many thanks to all,  
Annual Meeting Committee  
Marie, Don and Weldon



### Mission Statement

The Precast Concrete Association of Virginia is dedicated to the growth of the precast concrete industry. We pursue that purpose by educating and partnering with specifiers, installers and end users on the advantages and proper utilization of our products and systems. The association will represent its members in the Commonwealth of Virginia.

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