



October 2007

Volume 1, Issue 2

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Entering only its second year of existence, momentum behind Virginia Tech's Land Development Design Initiative (LDDI) is growing rapidly. The unique partnership between industry professionals and the Via Department of Civil and Environmental Engineering continues to raise student awareness of land development as a career path, while also enhancing and expanding upon the department's educational efforts in land development design. This past April, LDDI began offering sponsorship to firms as a means of generating revenue to support its efforts. In just five months, close to 20 firms have generously committed as business partners! The revenue generated from these sponsorships has enabled the hiring of personnel to further expedite the goals of LDDI, the publication of this quarterly newsletter, the creation of a new website, and the development of LDDI-sponsored contests to attract student interest to the program.

On July 20th, a LDDI General Membership meeting was held on campus. This all-day event provided an opportunity for LDDI volunteers to get together and share ideas on both curriculum enhancement and practitioner involvement in the program. The meeting also served as an introductory experience to a number of new firms who we hope will become regular participants in LDDI.

Coinciding with the beginning of the fall semester, LDDI launched its new website ([www.lddi.net](http://www.lddi.net)). I encourage you to visit the site, as it showcases many exciting land development projects, industry professionals, and various LDDI events and happenings!

As always, a thank you to Ana Constantinescu and Kevin Young for making this newsletter happen. This newsletter is published for YOU, and we want to keep you up to date on all of the exciting happenings in LDDI. I welcome your feedback on how the newsletter can be improved to meet your expectations.

Best wishes, and a tremendous thank you to our sponsoring organizations!

VT LDDI Coordinator,  
Randy Dymond

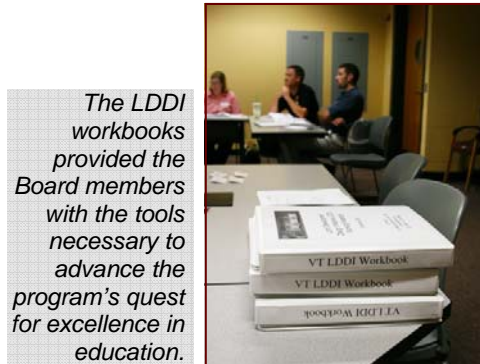
## Board meeting strengthens commitment to LDDI



In July '07, LDDI Advisory Board members met to discuss the strategic plans for the increasingly successful program.



Randy Dymond, LDDI coordinator, hosted the Board meeting.



The LDDI workbooks provided the Board members with the tools necessary to advance the program's quest for excellence in education.

Bill Pyle from Greenhorne & O'Mara shared his enthusiasm about his experience as a LDDI mentor.



Photos and captions by Ana Constantinescu

## Alumni Spotlight: Lauren Geiger, Kimley-Horn and Associates

### *Successful careers begin with the right attitude and internship*

by Ana Constantinescu



*“At Virginia Tech you get a wide range of experience through your coursework, but it’s the positive, can-do attitude that is fostered during your school years by peers and professors that will help you get the job you want.” - Lauren Geiger, Kimley-Horn and Associates*

Lauren Geiger has special ties with Virginia Tech. Her father, godfather, and younger sister are Virginia Tech alumni, and she met her fiancé in their freshman year at Virginia Tech. Since June 2007, Lauren also will remember the serene Blacksburg campus as the place of her engagement.

Lauren started her career at Kimley-Horn and Associates in 2004, right after she graduated with a degree in civil and environmental engineering. She was recruited to join a new program called “Land Development University” at one of the firm’s Florida offices. “This program enabled me to learn about various technical and professional growth topics that have helped me become not only a better consultant, but also have a more rounded understanding of all that land development encompasses,” says Lauren.

The transition from school to real life can sometimes be challenging. “I realized that there wasn’t only one correct answer,” admits Lauren. “In real life, there are many ways to solve engineering problems, some are better than others, some you only learn through

experience.”

Academic programs such as LDDI are created to make the transition from theory to practice smoother for future civil engineers. Lauren believes that LDDI is a great opportunity for students to learn about civil engineering prior to entering the field. “It also gives them access to companies that are successful within the field,” she adds.

Even though Lauren misses the small joys of being a student at Virginia Tech such as going to football games with her friends and sorority sisters, Lauren has a bright future ahead of her. She is now a civil engineering analyst and is involved in projects ranging from mid to large size commercial development, to implementing new design products for underground stormwater detention facility design.

Managing such diverse projects is tough, but worthwhile. “It is extremely rewarding to be able to bring work to the table as a young professional, and it also gives you an opportunity to market yourself and the firm you represent.”

## LDDI Advisory Board: Jeff Lighthiser, Draper Aden Associates

*An accomplished civil engineer, with P.E. licensures in eight states, Jeff is a member of the LDDI Advisory Board and helps teach an advanced LDDI class at Virginia Tech. Jeff is Executive Vice President and Director of Marketing at the Richmond, Virginia branch of Draper Aden Associates.*

### **What is your specialty within civil and environmental engineering (CEE)?**

**JL:** I have spent most of my career on land development projects ranging from residential to institutional. Sample projects include Hethwood in Blacksburg, Virginia; academic, residential and recreational projects at the University of Richmond; public projects such as the renovation of the Virginia State Capitol, the State Finance Building, the Washington Building and the 8th and 9th Street Office Building; and various development projects for industrial clients such as Wella, the Federal Reserve Bank, and Mead Westvaco.

### **What attracts you to CEE?**

**JL:** The desire to improve the built environment attracted me to the field of civil engineering. I have also enjoyed the variety of projects that I have been exposed to

throughout my career.

### **What is the highlight of your professional career?**

**JL:** Definitely opening a branch office of our firm in the Richmond, Virginia market. Starting with a staff of one, our office has grown to over 100 people in 20 years, offering land development engineering, water and wastewater design, surveying, structural engineering, geotechnical engineering and environmental services. Other highlights focus on the historical work that I’ve been involved with. Helping to develop a new master plan for Thomas Jefferson’s Monticello, and being a member of the design team for the new visitors center at James Madison’s Montpelier, have been fascinating projects.

### **What do you think are the strengths of this program?**

**JL:** Involving the practitioners in the LDDI program through mentoring and instructing teaches the students what employers are looking for in the workplace. The vision that Dr. Dymond has brought to LDDI provides the students a unique opportunity to set themselves apart when seeking employment.



*“As a co-op student at Virginia Tech, I learned first hand the value of hands-on practical experience. Helping students prepare for their careers in civil engineering is my way to give back to the profession.” - Jeff Lighthiser, Executive Vice President and Director of Marketing, Draper Aden Associates*

## christopher consultants, ltd. changes the face of large Washington metropolitan area

christopher consultants, ltd. (ccl) is giving a new purpose to a 310 acre empty site along Virginia Route 1 in the Washington metropolitan area. The project, called Potomac Yard after its location across Potomac River, is one of the most significant redevelopment ventures in the nation's capital area in the past 20 years.

Spanning Arlington and Alexandria, the Potomac Yard was historically operated as a rail yard, until plans for redevelopment were announced in 1987.

Controversy surrounded Potomac Yard during the initial planning stage when the community opposed the construction of a Washington Redskins stadium on the site. As a result of the dialogue between the Arlington and Alexandria communities and the property owners, Potomac Yard is now the site of several retail, residential and commercial projects.

ccl is involved in all aspects of this \$500 million multi-phase project. The engineers started by relocating 3.5 miles of train track as preparation for the region's largest

mixed-use development project. Next, ccl design teams completed plans for the light rail system, pedestrian circulation, road network, and utilities. The firm also provided the preliminary design for the 600,000 square feet Potomac Yard retail center, which included a movie theater, big-box stores, and other small retail pads.

The Arlington section of Potomac Yard is currently in the design phase, but once completed it will provide mixed-use development of 2.5 million square feet of office space, 1,600 new residential units, and 188,000 square feet of restaurants and shopping.

Recently, ccl has completed one of the most exciting projects in Potomac Yard's Arlington section: a 654,000 square feet two-tower office and retail building complex. One of the towers now houses the Environmental Protection Agency. The building boasts a Gold LEED Certification, which offered ccl the opportunity to expand its portfolio with "green building" and environmental design.

*edited by Ana Constantinescu*



*When finished, the Alexandria part of the Potomac Yard will be home to 1,683 residential units, almost 2 million square feet of office and retail space, and 625 hotel rooms.*

## Bohler Engineering surmounted unique land development challenges in Front Royal, Va.

Building a 500,000 square foot retail center on the site of a former quarry in a region with Karst geology is not an easy task. Just ask the engineers at Bohler Engineering who are currently working on the Riverton Commons project in Front Royal, Virginia.

The abandoned quarry site, which was 90 feet deep and covered an area of 2.5 acres, needed special planning by the Bohler Engineering team. An access road had to be cut into the existing quarry to allow the entrance of equipment. Next, several hundred cubic yards of grout were injected into the ground to prevent potential sinkhole formation due to the area's Karst geology. Also, Bohler Engineering performed an extensive amount of grading to minimize rock excavation, and filled the quarry site to grade under the proposed building footprint.

The Riverton Commons project was designed to utilize low impact techniques for stormwater quality management. The

engineers included several rain gardens throughout the site to achieve stormwater quality control and to provide additional landscaping areas. "Our goal was to maintain water quality for the Shenandoah River and ultimately the Chesapeake Bay," says Mark Joyce, P.E., Bohler Engineering Warrenton office branch manager.

One other challenge that confronted the Bohler Engineering specialists was to provide a solution to the heavy truck traffic at the entrance to this major shopping center. "The Riverton Commons was one of the first projects in the state of Virginia to include the design of a round-about to ease traffic flow in and out of the site," explains Mark.

The Riverton Commons round-about is the first example of such a traffic solution in the Staunton District of the Virginia Department of Transportation, and it was successfully reviewed by the Federal Highway Administration.

*edited by Ana Constantinescu*



*Riverton Commons is a dynamic addition to the Front Royal area in Northern Virginia. Upon its projected completion in July 2008, Riverton Commons will provide much needed shopping and restaurant venues for the residents of Warren County, Virginia.*

## Virginia Tech

The Via Civil and  
Environmental  
Engineering  
Department

## LDDI Bridges

A publication of  
Virginia Tech's  
*Land Development Design  
Initiative*

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October 2007  
Vol. 1, Issue 2

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## William H. Gordon Associates undertakes immense land development project

*edited by Kevin Young*

William H. Gordon Associates, Inc. (WHGA) has undertaken the unique opportunity to design a new town center from the ground up in Loudoun County, Virginia.

Comprised of 358 acres, One Loudoun represents a new paradigm in land use. Evolving from "smart growth" principles, the project's goal is to establish a mixed-use, pedestrian-oriented environment achieved through vertical integration, while preserving natural open space.

"The goal is to encourage people to exit their vehicles to enjoy a diverse and vibrant destination where one can work, live and play," explains Linda Erbs, One Loudoun project manager.

Upon its completion, One Loudoun will be a member of the World Trade Center Association. The World Trade Center affiliation means that the project is immense not only in terms of land area, but also in terms of its financial impact on the surrounding community. Projections are that the project will create approximately 14,000 jobs.

In addition to providing civil engineering design and surveying services, WHGA also assisted the project's development team in educating local business leaders and citizens on the tremendous benefits of the project. This outreach effort resulted in a

project that was embraced by neighboring communities.

The majority of the project's design efforts employed automated tools within a myriad of software programs. However, project manager Linda Erbs states, "the art of engineering will always require the talent of our design professionals."

The project's phased construction is slated to be substantially complete in approximately seven years, with ultimate build out anticipated by 2018.

One Loudoun is the first project in Loudoun County to earn a "Smart Growth Project" award from the Smart Growth Alliance. For more information on the Smart Growth Alliance, please visit [www.sgalliance.org/criteria.pdf](http://www.sgalliance.org/criteria.pdf).



*Upon completion, One Loudoun will feature a World Trade Center, office space, residential units, a school, parks, hotels, a movie theater, shops, and restaurants.*

## Thank You to our sponsors!

The sponsorships of our business partners are an essential component to the success of LDDI. To find out more about the benefits associated with each level of sponsorship, please visit [www.lddi.net/BusinessPartners.asp](http://www.lddi.net/BusinessPartners.asp) and click on *Sponsorship Documentation*.

We thank the following firms for their generous support:

**PLATINUM:** Balzer & Associates, Inc.; Kimley-Horn and Associates, Inc.; Bohler Engineering; christopher consultants, Ltd.; Bowman Consulting; Draper Aden Associates; Paciulli, Simmons & Associates, Ltd.; Wetland Studies and Solutions, Inc.; AES Consulting Engineers; William H. Gordon Associates, Inc.; Burgess & Niple; ESP Associates, P.A.; Vanasse Hangen Brustlin, Inc.

**GOLD:** Anderson & Associates; Greenhorne & O'Mara; Dewberry; Fairfax County

**SILVER:** American Infrastructure

## Inaugural CEE Career Fair booked in 10 minutes

*by Kevin Young*

The Via Department of Civil & Environmental Engineering (CEE) is proud to offer the opportunity for student recruitment through a new career fair on October 3-4 called the CEE Fair. Employer demand for this new fair has been tremendous: All available exhibition space was booked in 10 minutes! The emphasis for the new fair will be on civil engineering design and related services (environmental, geotechnical, land development, structural, transportation, and water resources).

For more information on the fair, please visit [www.cf.cee.vt.edu](http://www.cf.cee.vt.edu).