



October 2016

Volume 10, Issue 4

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LDDI Bridges

is a publication of Virginia Tech's Land Development Design Initiative

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Fall greetings from Blacksburg! While hard to believe, the calendar, crisp air, and vibrant fall foliage are all daily reminders that we're now deep into the fall 2016 semester! As you are reading this newsletter, more than 200 students are currently enrolled in LDDI courses! Outside of the classroom, LDDI is hosting a number of networking events this fall, including a Career Night mixer on the eve of the CEE Career Fair, and a football viewing party as the Hokies travel north to take on the Pitt Panthers. This semester's Career Night mixer marks the nineteenth consecutive semester that the event has been held. As the old saying goes, time flies when you're having fun! This semester also finds upperclassmen in the Sustainable Land Development Club actively recruiting new students to participate in a number of exciting service projects that we have lined up for the spring semester. It's certainly an exciting and busy time of year!

I hope you enjoy reading this most recent edition of our newsletter and learning more about the people and firms that make LDDI a success. As always, I welcome your feedback on how we can improve upon our efforts to maintain Virginia Tech as the national leader in undergraduate land development design education.

Dr. Randy Dymond, PE, VT LDDI Coordinator

LDDI Offers Additional Section of CEE 3274

Making its debut during the fall 2009 semester, CEE 3274 – Introduction to Land Development Design has become an integral part of the overall LDDI curriculum. Prior to the creation of CEE 3274, no prerequisite existed for LDDI's senior design course, CEE 4274. As a result, students often found themselves overwhelmed in the design course, not having the benefit of previously completing an applied introductory course on the subject matter. Fast forward to 2016, and CEE 3274 is well entrenched not only in the LDDI curriculum, but also in the overall undergraduate CEE curriculum, as it is one of eight courses from which students must complete seven in order to graduate.

The popularity of LDDI's junior course has not come without its drawbacks. As a matter of departmental policy, junior-level, introductory CEE courses are capped at a maximum enrollment of 65 students. During the 2015-16 academic year, two sections of CEE 3274 were taught at full capacity, with more than 60 students left on waiting lists unable to take the course. As CEE 3274 is a prerequisite for CEE 4274, this resulted in a curriculum bottleneck and declining enrollment in the design course. Enabled by the recent hiring of Mrs. Claire White, PE as an Assistant Professor of Practice, this fall marks the first semester that LDDI is offering two sections of CEE 3274. LDDI Assistant Coordinator Kevin Young, who regularly teaches both the fall and spring offerings of the course, stated, "I'm thrilled that we're now able to accommodate twice as many students each semester. I'm confident that this will result in more, and better prepared students taking CEE 4274. LDDI is extremely fortunate to have Claire. Her consulting experience, as well as serving as a GTA for multiple LDDI courses during her time as a graduate student, make her the ideal person to take on the additional section of 3274."

Young and White are coordinating closely, on almost a daily basis, this semester to ensure that the two course sections remain chronologically on pace with each other. They have also coordinated to hold common time exams across the two sections of the course. Looking ahead, two sections of CEE 3274 will be offered during both the fall and spring semesters.

by Kelly Shayne Young



The recent hiring of Claire White, PE has enabled LDDI to offer multiple sections of its junior level course.



Draper Aden Associates is providing numerous services to redevelop and revitalize the Town of Pulaski, VA.

Draper Aden Aids in Revitalization Efforts in Pulaski, VA

edited by Kelly Shayne Young

Draper Aden Associates is assisting the Town of Pulaski, Virginia in transforming its former downtown manufacturing economy and development pattern into a pedestrian oriented commercial and service community. This effort has focused on the identification and enhancement existing downtown community assets and the evaluation of abandoned industrial sites for redevelopment that advances the revitalized downtown Pulaski.

Building upon several recent economic development projects in the central downtown area, Draper Aden Associates has worked with Pulaski in preparing the Peak Creek Promenade Master Plan. The planning includes various improvements that connect a series of community spaces along a pedestrian pathway organized along Peak Creek. In addition, the “promenade” unifies landscape-improved downtown streets that emphasize and support existing commercial thoroughfares.

The master plan includes amenities along the creek such as improved pathway surfaces, stairways and accessible ramps to existing buildings, a creek overlook, and small pocket parks, which will demonstrate the importance of long-term reinvestment in the target area. One focus area of this project

includes an alleyway and existing vacant lot on Peak Creek that creates a view shed from Town Hall on First Street across the creek to the Pulaski County Courthouse building on West Main Street. Another area of focus is a brownfield site located at the eastern end of the corridor, which is a highly visible location with potential to anchor future recreational amenities for the entire downtown area.

A schematic site plan for this property will be prepared to explore opportunities for future greenspace and/or recreational use. Potential uses include outdoor basketball courts and/or the relocation of the Town’s skate park to a more visible, central location. The Town also plans to explore reuse of adjacent and nearby properties for recreational amenities such as an amphitheater, parks/open space, picnic areas, and a permanent location for a farmer’s market, all of which have potential to transform the First Street Corridor into a regional destination to spur significant reinvestment in the community.

This project also includes a general streetscape improvement plan for improvement projects along various main thoroughfares. The purpose of the study is to identify specific locations that afford opportunities to enhance the downtown area through aesthetic improvement.



christopher consultants travelled to the Republic of Liberia in Western Africa to provide mapping, drainage master planning, flood control, stormwater management, and construction oversight to remedy flooding and drainage issues at a local Firestone plant.

christopher consultants Travels Abroad to Alleviate Flooding Issues at Liberian Firestone Plant

edited by Kelly Shayne Young

christopher consultants is working with ECS Mid-Atlantic, LLC, to provide onsite civil engineering and stormwater management support at a Firestone plant in Liberia, Africa. This plant was established in 1926 and is the world’s largest natural rubber producing operation, spanning approximately 119,000 acres. The site also includes a rubber tree furniture processing plant, retail shops, employee housing, schools, a hospital, and a hydroelectric dam. The plant was experiencing flooding issues that caused a major concrete slab floor failure and sinkhole to form below its new plant expansion in a recently completed building.

christopher consultants’ technical staff traveled to Harbel, Liberia to evaluate the site’s drainage issues. christopher’s team, alongside Firestone’s construction and engineering staff, was able to locate the cause of the failure using pipe video camera

systems. The problem was identified and an immediate remediation plan was implemented in the field to restore the plant drainage and structure to operational capacity. As part of the solution, christopher staff recommended a long term option for the deteriorated pipe and proposed improvements to reduce flooding within the rubber manufacturing facility, suggesting the use of HDPE pipe to reroute a portion of the site that currently flows beneath several structures within the facility. christopher consultants is currently developing mapping and designing drainage systems for practical implementation of the recommendations provided during the site investigation. The firm’s project team anticipates traveling back to the site in Liberia during the dry season to assist Firestone staff and ECS in the oversight of construction for the newly designed drainage piping systems.

AES Lends Services for Adaptive Reuse

edited by Kelly Shayne Young

Located in Central Richmond, not far from the Baseball Diamond and the new Redskins Training Facility in an area known as Scott's Addition, is a new residential development called The Preserve at Scott's Addition.

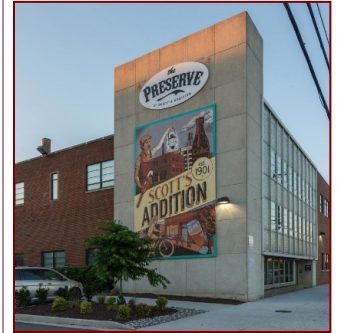
Designed by AES, this project was a complex mix of new construction and historic adaptive reuse. The adaptive reuse included the complete transformation of the historic Mid-Atlantic Coca-Cola Bottling Company building into a modern apartment complex. The new construction section features apartments with modern amenities including a pool and outdoor patio space, a rooftop deck, a fitness center, a club room, a listening lounge, and a social club.

The 4.7-acre site provides 194 apartment units, 124 in the new facility and 70 in the adapted Coca Cola building. Of the total existing building area of just over 100,000 sq. ft., approximately half was demolished for new construction, while the remaining half was renovated. For reasons related to the use of historic tax credits, the finished floor elevations in the renovated

structures had to remain the same. AES survey staff essentially provided "topo" for the inside of the building, because the floors weren't level in many areas and there were drastic changes in levels to accommodate industrial operations. Various techniques were used inside the building to keep the existing floor elevations the same, including steps and ramps. This required attention to detail with regard to fine-grading of the site in areas external to the buildings.

AES landscape architects, surveyors, and engineers worked in tandem with the client and multiple architects to achieve the highest and best use for an aging structure.

The successful transformation of this historic complex required significant investment, creative input from both the architect and the engineer, and a willingness by the locality to allow for a change in use. Today, The Preserve at Scott's Addition is a terrific example of site engineering techniques successfully applied to an existing site to achieve new investment, historic preservation, and sustainable development.



AES provided services to transform a mid-century historic landmark into a modern apartment complex.

Who We Are: Andrew Gorecki, ccl Senior Associate

Each issue of *LDDI Bridges* focuses on Advisory Board members who make LDDI happen.

Andrew is a Senior Associate at christopher consultants, a civil engineering, surveying and land planning firm, and a new LDDI Advisory Board Member.

What is your specialty within the land development industry?

I specialize in residential and commercial land development design. I also specialize in the suburban market, particularly on planned communities and developments.

What attracts you to civil engineering?

I enjoy watching a project evolve from a raw piece of land into a thriving development. It provides a sense to accomplishment to know that I was a part of it.

Please mention the highlights of your career.

One of the biggest highlights of my professional career is being able to inspire other employees at christopher consultants to grow and help them reach their goals. Another highlight was obtaining my PE license, as well as working on landmark projects such as Heritage Hunt, Manassas Gateway, and Loudoun Station.

What motivated you to become involved with LDDI?

I enjoy helping others grow personally and professionally. The LDDI program gives me an opportunity to take what I've learned throughout my career and share it.

What do you think are the strengths of this program?

LDDI is a great program, one I wish had been around when I was a student at Virginia Tech. LDDI gives students an opportunity to collaborate with industry professionals and do work on real projects.

Could you please share a few of your personal hobbies and/or interests?

I really enjoy building things. In fact, I just finished building corn hole boards (painted with Virginia Tech colors, of course!).

Can you please share something unique about you?

I've worked at christopher consultants for over 20 years, which is my entire professional career. I started working here as an intern, and was hired full time after I graduated in 1995.



"Students who have taken LDDI classes are ready to start designing on their first day on the job." - Andrew Gorecki, christopher consultants Senior Associate

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LDDI Bridges October 2016

LDDI, Inc. Holds Second Golf Fundraiser

by Kevin Young



LDDI Coordinator Dr. Randy Dymond with members of the winning foursome.

On Thursday, October 6th, LDDI, Inc. hosted a golf fundraiser at the Potomac Shores Golf Course in Dumfries, VA. This is the second time LDDI, Inc. has held this event, the first being in October 2014. Moving forward, event organizers plan to hold the event annually. In total, nearly 100 golfers participated in the event and enjoyed playing the challenging Jack Nicklaus course. Proceeds from the event will go toward advancing LDDI program efforts both inside and outside of the classroom. Jim Bishoff (J2 Engineers), Kyle Bollinger (Kimley-Horn and Associates), and Sue Wolford (Pennoni) served as the primary tournament organizers, and LDDI sincerely thanks them, as well as everyone who contributed their time and energy to making the event a success. Of her involvement with the tournament and LDDI, Wolford stated, "this is the first time I have been involved with the golf tournament, and I was a little surprised how interested vendors and clients were in supporting the event once they understood the mission of LDDI. They got it! The importance and relevance of what LDDI is doing to prepare students

was recognized and appreciated!"

In addition to event organizers, LDDI wishes to thank and recognize the following event sponsors:

- Dewberry
- Van Metre Homes
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- Brickwall Printing
- Crown Awards



Members of the Bohler Engineering team take a break from golfing for a photo op.



Former LDDI student Tyson Catlett (Draper Aden Associates) makes an approach shot.

The team sponsored by Concrete Pipe and Precast and comprised of Mark Oetjen, Jeff Oetjen, Frank Hopke, and Mike Hopke took home first place, shooting an impressive 57.

LDDI, Inc. is an independent 501(c)3 non-profit organization that exists to help raise funds and support the efforts of the larger LDDI program at Virginia Tech. LDDI, Inc.'s employer identification number is 20-8828209.