

The Land Development Design Initiative (LDDI) 2013 Annual Report



LAND DEVELOPMENT
DESIGN INITIATIVE

Program Coordinator's Message

I'm thrilled to provide this 2013 Annual Report of the Land Development Design Initiative at Virginia Tech! Putting together the pieces that make up this report causes us to reflect on all the great things that are happening in the program and all the wonderful help we get from our professionals. Let me express my sincere gratitude to all of you that make this possible, including the hard working LDDI Advisory Board Members and others who give freely of their time and energy to the program.

Believe it or not, we began this program only seven years ago and it has continued to evolve and mature to be a program of unparalleled excellence in land development design. Our organic growth model, from the ground up, has been a story of a collaborative vision to improve the land development design profession by creating a new type of young professional. We've had two primary missions during this period, dramatically improving our educational offerings, and involving professionals into the university experience of our students. I believe we're succeeding at both, with your help. We're now sending out our newsletter and eUpdates to more than 450 professionals. This includes designers, developers, municipal engineers, home builders, service providers, equipment manufacturers, and professionals in many vocations linked to land development. We continue to spread our graduates across the broad canvas of the industry where they are digging in and making a difference. I submit to you that with the LDDI program, our students are productive from day one on the job and loving every minute of it.

Within this report, you'll read about this past year's events and course improvements. We've been working hard on making sure we continue to improve the curriculum and bringing new ideas to the program. With your help, we stress both the technical and the social aspects of a professional; client relationships are a key to success. You'll also read about our vision for the future and our need for sustaining the program over the long term; we are making a difference and can't afford to let the program lapse due to a lagging economy. On that note, you may notice that our sponsorship drive has been strong, with the number of sponsors growing again this year. We're also pursuing a Research and Development arm of LDDI, with some projects currently underway. The student club has been extra busy this year with plenty of plans for the upcoming year.

There are so many exciting things underway, I hope that you'll stay in touch and get involved. If you are not already active in LDDI, I encourage you to seriously think about it; we'd love to have your input. We've outlined numerous ways to get involved at the end of this report, so join in and have some fun working with our students!

Best regards,



Table of Contents

Program Coordinator’s Message..... 1

Diamond and Platinum Corporate Sponsors..... 3

2012-2013 General Membership Meetings 7

2012-2013 Financial Summary 7

Endowment and Long Term Program Sustainability 8

Program Goals and Strategic Planning 9

Curriculum and Course Enhancement..... 9

Student Impressions of the LDDI Program 12

Practitioner Involvement..... 13

Outreach Committee Update 16

How to Get Involved with LDDI 17

Special Thanks 19



Diamond and Platinum Corporate Sponsors

In our 2012-13 fiscal year, Diamond and Platinum Corporate Sponsors contributed over \$80,000 to LDDI. The following section highlights each of these corporate sponsors and their involvement with LDDI.

Diamond Level:

Bohler Engineering

Bohler Engineering was founded in 1981 with a small office in New Jersey, and today, they have 14 offices in 8 states along the East coast. They offer services in Civil Engineering, Landscape Architecture, Land Surveying, Environmental Consulting, and LEED & LID Civil Design Consulting.



Bohler Engineering has been a sponsor of LDDI since 2007. Ginger Greunke, Recruiting Manager from the Sterling, VA office, and Charlie Yowell, a Project Manager from the Warrenton VA office are both serving as the Outreach Committee Co-Chairs on the LDDI Advisory Board.



Bowman Consulting

Bowman Consulting was founded in 1995, and has been recognized as one of the fastest-growing consulting firms with 24 offices distributed across the United States. They offer services in Civil Engineering, Planning, Landscape Architecture, Surveying,

Environmental Consulting, Transportation, and more. Bowman Consulting has been a sponsor of LDDI since 2007. Roy Waugh, Principal from the Chantilly, VA office, currently serves as the Vice Chair of the LDDI Advisory Board.

Kimley-Horn and Associates, Inc.

Kimley-Horn and Associates, Inc. was founded in 1967 in North Carolina, and over the past 45 years has grown to include over 65 offices in 17 states. They provide an array of engineering and land planning service including transportation, water resources, land development, and more.

Kimley-Horn and Associates has been a sponsor of LDDI since 2007. Derrick Cave, Principal and Senior Vice President from the Vero Beach, FL office is a Life Member on the LDDI Advisory Board.



Platinum Level:

Accumark Subsurface Utility Services

Accumark Subsurface Utility Services was founded in 1994 as a certified small business. The firm now has a total of eight offices located in five states.

Accumark provides their clients with accurate and reliable underground utility information, location, and mapping. Accumark has been a sponsor of LDDI since 2011.



AES Consulting Engineers

AES Consulting Engineers was founded in 1980, and has since grown to have five offices in central and eastern Virginia. They offer services in Civil Site Design, Landscape Architecture, Surveying, Land Planning, and Public Utilities Design.

AES Consulting Engineers has been a sponsor of LDDI since 2007. Firm Vice President Arch Marston currently serves as the Practitioner Involvement Committee Chair on the LDDI Advisory Board.



christopher consultants

christopher consultants, ltd.(ccl) was founded in 1982 and is a full-service civil engineering, land planning, surveying, and landscape architecture firm. The firm is organized as a corporation in the Commonwealth of Virginia and is designated a Small Business Enterprise by the Commonwealth's Department of Minority Business Enterprises. The firm's work is organized into the following divisions: Public, Land Development, Surveying, Special Services, Maryland, and Corporate Services. christopher consultants has been a sponsor of LDDI since 2007.



Clark Nexsen

During more than eight decades since its inception, Clark Nexsen has planned and designed a wide variety of projects. With nine offices located in three states and the District of Columbia, the firm offers complete architectural and engineering

services from project inception through completion of construction. The firm is committed to designing highly efficient buildings and systems.

Clark Nexsen has been a sponsor of LDDI since 2011. Greg Deubler, Senior Engineer in the Norfolk, VA office, currently serves on the LDDI Advisory Board.



Dewberry

Dewberry was established in 1956 with an office in Arlington, Virginia and has grown over the past 55 years to have more than 40 locations in 18 states. They offer architecture, consulting, and a variety of engineering services.

Dewberry has been a sponsor of LDDI since 2007. Robert "Skip" Notte, Associate Vice President and Office Manager of the Charlotte, NC office is currently serving as Chair of the LDDI Advisory Board.

Draper Aden Associates

Draper Aden Associates was founded in 1972 with an office in Blacksburg, Virginia and now has 4 offices located across Virginia. They are a full service consulting engineering firm offering services in site planning and engineering, sustainable design, utilities engineering, and more.



Draper Aden Associates has been a sponsor of LDDI since 2007. Firm president and CEO Jeff Lighthiser is a previous Chair of the LDDI Advisory Board.



Filtterra Bioretention Systems

Filtterra Bioretention Systems was developed by its parent company, Americast, in 2000. Americast is an independently-owned precast concrete and reinforced concrete pipe manufacturer, offering a broad range of products and services throughout the U.S. For the past 15 years, Americast has been in the forefront of designing, manufacturing and distributing various sanitary and stormwater treatment systems to meet their clients' regulatory requirements. From that experience, Filtterra Bioretention Systems was developed and has quickly become recognized as a state-of-the-art stormwater solution in advanced bioretention treatment technology.

Filtterra has been a sponsor of LDDI since 2011.

J2 Engineers

J2 Engineers, Inc. provides high quality professional engineering services on a wide range of design projects, with emphasis on developing creative, cost-effective and environmentally sensitive solutions. Founded in 2007, the firm has built an extraordinary track record of providing distinctive and integrated design solutions for civil engineering, transportation, site design, land planning and surveying assignments.



Located in Chantilly, Virginia, J2 Engineers is a Virginia Small Business and a certified business in West Virginia. The firm touts a multi-disciplinary and team-oriented approach to manage complex assignments. J2 Engineers has been a sponsor of LDDI since 2007, and Principal Jeff Gilliland is a former Chair and is a Life Member of the LDDI Advisory Board.



Jansen Land Consulting, LLC

Jansen Land Consulting, LLC was founded in 2008 with an office located in Falls Church, Virginia. They provide development management services for land acquisition due diligence, land entitlement, land development, and bond release.

Jansen Land Consulting has been a sponsor of LDDI since 2010. Bob Jansen, President, is a Life Member on the LDDI Advisory Board.

Maser Consulting

Maser Consulting is a privately owned, multi-disciplined, engineering firm with a unique balance of public and private sector experience. Headquartered in Red Bank, NJ, the firm has consistently been recognized nationally by Engineering News Record as one of its Top 500 Firms and employs an average of 400 professionals throughout the East Coast and Mid-Atlantic regions with a nationally diversified project portfolio.



Maser Consulting has been a sponsor of LDDI since 2012.

2012-2013 General Membership Meetings

Over the past year, LDDI hosted two General Membership meetings. These meetings provide an opportunity to bring our industry partners up to speed on the status of the LDDI program, campus activities inside and outside of the classroom, and immediate and long-term visions for the program. The meetings also provide a wide range of opportunities for industry professionals to become involved with LDDI. In an effort to reach out to professionals, both of this year's meetings were held off campus, one in Richmond and one in northern Virginia.



*Dave Flanagan (Elm Street Development)
speaks at the July, 2012 meeting*

On Monday, July 23rd, 2012 LDDI hosted a meeting at the Professional Insurance Agents facility in Richmond. One unique aspect of this meeting was a panel comprised of current students, recent graduates of the LDDI program, and former students who are now working in the land development field. Members of the panel shared their impressions of the program and also addressed questions from the audience. This meeting also featured a panel of guest speakers including Jeff Edelman, Director of Land Development for Pulte Homes; Dave Flanagan, President & Principal of Elm Street Development; Tom Rust, Virginia House of Delegates; and Ginny Snead, Regulatory Programs Manager – Virginia DCR. Meeting attendees were awarded two PDH credits.

On Friday, January 11th, 2013, LDDI hosted its annual winter General Membership meeting at the Fairfax County Government Center. The meeting was one of the largest of its kind to date, with more than 90 attendees representing the academic, consulting engineering, and development communities. Also attending were representatives from several local governments as well as product and service vendors. The meeting once again featured a number of guest speakers, including Barbara Byron, Director Fairfax County Office of Community Revitalization; Tom Biesiadny, Director Fairfax County Department of Transportation; John Amatetti, Principal VIKA, Inc.; and Tom Fleury, Executive Vice President of Cityline Partners, LLC. Meeting attendees were awarded two PDH credits.

2012-2013 Financial Summary

During the 2012-2013 fiscal year, LDDI collected revenue of approximately \$116,000 through its corporate sponsorship program and individual donor campaign. This figure remains consistent with revenue collected during our previous fiscal year, and demonstrates the value that our corporate partners and individual donors see in the program, even in a lagging economy. These funds were used to directly support LDDI activities inside and outside of the classroom. The following describes some of LDDI's major expense categories to which this revenue was directed.

Instructor Compensation: Of the seven LDDI courses offered each year at Virginia Tech, the University provides financial support for only three. Private donations to LDDI provide instructor compensation for the remaining four.

Program Expenses: Program expenses include support for LDDI's student club, including field trips, travel to service project locations, and social gatherings. This expense category also includes event catering for LDDI general membership and outreach meetings, publication of the *LDDI Bridges* quarterly newsletter, and past funding of the LDDI student internship program.

Operations Expenses: Operations expenses include general overhead costs such as postage, printing and copying, website development and maintenance, telecommunications, and University Foundation fees.

Travel and Meetings: LDDI has traditionally hosted two general membership meetings each year. Outreach efforts such as these comprise a critical part of LDDI's efforts to ensure continued practitioner participation in the program.

Student Support: Though none were awarded this past academic year, to date, LDDI has administered a total of ten \$2,000 scholarships. Eligibility for these scholarships is restricted to students who have completed or are enrolled in certain LDDI courses. This expense category also provides for a total of 10 high performance "loaner" computers that are made available to student design teams in CEE 4274 – Land Development Design.

Endowment and Long Term Program Sustainability

One of the current major, immediate goals of the LDDI program is to establish an endowment. The principal reason to establish such an endowment is to ensure the long-term sustainability of the program. LDDI has achieved remarkable results since its inception, funded solely by the financial contributions of our generous corporate sponsors and individual donors. While this is one model to operate such a program, recent economic trends have revealed this can be a risky approach to sustain longevity. The establishment of an endowment will assure necessary operating capital in good and bad economic times.

The program's current goal is to establish an endowment of \$5 million. At a yield rate of 5%, this would provide \$250,000 operating revenue annually to the program. Such funds could be used to provide scholarships, endow a professorship within the program, supplement the operating costs of the program, and enable the program to more aggressively pursue research opportunities within the field of land development. Regardless of how the funds may be used in one or multiple areas, the endowment would entrench the program solidly within the Via Department of Civil and Environmental Engineering at Virginia Tech.

Over the past two years, various LDDI Advisory Board members have met and will continue to meet with endowment candidates to accomplish this endowment goal. Endowment may come from one individual, one company or a consortium of multiple businesses and individuals. The

feedback we've received thus far from our initial meetings is that the lingering, fragile economy is the only impediment to one of more individuals or groups from establishing the endowment. We will continue to pursue meeting with as many individuals as possible to get the word out about this important measure. We welcome input and ideas also from you, the general membership of LDDI.

Program Goals and Strategic Planning

Legendary coach Vince Lombardi once stated, "The achievements of an organization are the results of the combined effort of each individual." Since its inception, LDDI has embraced an organic growth model that relies heavily on the grassroots efforts of individuals both inside and outside of Virginia Tech. Now boasting a general membership of more than 450 individuals, it can at times be a challenge to organize so many different (and potentially conflicting!) ideas into meaningful actions items that effectively advance the program in the right direction. The primary means by which LDDI's Advisory Board organizes, prioritizes, and achieves program goals is through its Strategic Plan. The first LDDI strategic plan was crafted over five years ago, and has since that time evolved considerably into two distinct components: goals and action items. The "big picture" goals represented in LDDI's current strategic plan are as follows:

1. Maintain awareness of land development as a career opportunity for undergraduate students
2. Continue to improve the educational experience in the land development area
3. Increase opportunities for practitioners to interact with students
4. Provide for the long term sustainability of the program
5. Solicit and promote interdepartmental collaboration and university support
6. Promote and sustain the LDDI research program

In direct support of these program goals, a collection of detailed action items comprise the remainder of the document. The LDDI Advisory Board conducts a formal review of the strategic plan during its annual April and October meetings, as well as periodically throughout the year. During these meetings, the status of each action item is critically reviewed and items that have been completed are removed from the plan, while those that are either ongoing or not yet begun are evaluated and organized by priority and feasibility. If you would like to review this dynamic document that serves as the LDDI program roadmap, please email a request to Kevin Young at keyoung@vt.edu.

Curriculum and Course Enhancement

Prior to creation of LDDI, students at Virginia Tech had only one land development design course offering available to them (CEE 4274, Land Development Design). Due to the efforts of LDDI, there are now a total of six different course offerings in land development design, with seven course offerings each academic year. The six individual courses comprise the most comprehensive undergraduate land development design curriculum in the country. As a direct result of LDDI's efforts over the past seven years, the 2013 Virginia Tech CEE graduates have the best foundation for a career in land development design of any students Virginia Tech has ever

produced. Of the seven land development course offered at Virginia Tech each year, the University provides financial support for only three. The remaining courses are funded through LDDI's corporate sponsorship program and individual donations to the program. On behalf of the students benefitting from these courses, LDDI wishes to thank all of our business partners and individual donors!

The following section briefly summarizes these courses, including the major changes made to CEE 4284 (Advanced Land Development Design).

Introduction to Land Development (CEE 3274)

During the 2012-13 academic year, CEE 3274 was offered during both the fall and spring semesters. In total, the two offerings saw a combined enrollment of more than 200 students!

The course is intended to introduce CEE students to a wide range of topics in the field of land development design. These topics include governmental roles and basic engineering principles underlying the land development process. Students get an overview of transportation, hydrology, utility design, and erosion and sediment control as it relates to a land development project. In conjunction with these topics, students are exposed to GIS and Civil 3D as tools to communicate and facilitate design. Additionally, the course covers a diversity of non-engineering topics including population growth, planning, landscapes, neighborhood dynamics, finance, and sustainability.



Derrick Cave (Kimley-Horn and Associates) delivers a guest lecture to CEE 3274 students

Land Development Design (CEE 4274)

CEE 4274 offering remains tremendously popular among students despite its heavy workload! Offered in both the fall and spring semesters, a total of 60 students took CEE 4274 during the 2012-13 academic year. Beginning in the fall 2006 semester, and facilitated through LDDI, students taking CEE 4274 have been paired with a professional engineer who serves as their mentor throughout the entirety of a semester long design project. LDDI would like to thank the following firms for their time and energy to serve as mentors to CEE 4274 students this year:

AES Consulting Engineers
 Bohler Engineering
 Bowman Consulting Group
 christopher consultants
 Dewberry
 Draper Aden Associates

Filterra
 J2 Engineers
 Kimley-Horn & Associates
 Rinker Design Associates
 William H. Gordon Associates

Municipal Engineering (CEE 4254)

CEE 4254 – Municipal Engineering is offered during the spring semester of alternating years, and was not taught during the 2012-13 academic year. The course was last offered during the spring 2012 semester, and was coordinated by Adele Schirmer (Director of Engineering and GIS, Town of Blacksburg). Adele was assisted in course organization and design by James Patteson (Fairfax County Director of Public Works and Environmental Services) and Randy Dymond (LDDI Coordinator). The course focused on familiarizing students with the role of the municipal engineer, and the important relationship that exists between municipal engineers and the land development industry. The course included 15 guest speakers and having 6 municipal engineering mentors work directly with students on projects. Commenting on the revised course, James Patteson stated, “this course is an opportunity for students to learn about the role of local public works departments and municipal engineers in building, maintaining, and operating public utilities such as water and wastewater systems and public infrastructure, which are the life blood of any community.” Municipal Engineering will next be offered in the spring of 2014.

Sustainable Land Development (CEE 4264)

Sustainable Land Development was first offered during the spring 2008 semester as a one credit seminar and was expanded to a three credit course shortly afterwards. The course continues to be very popular with students and Dr. Dymond had 48 students take the class in the spring semester, the most ever! While enrollment in the course is restricted to only those students with senior standing, students from *any* major may enroll. This arrangement introduces various perspectives to classroom discussion and better prepares students for their careers where they will inevitably cross paths with professionals from a myriad of academic backgrounds. The Sustainable Land Development course focuses on the developed site’s long term sustainability and preservation of the pre-development quality of its environment. Specific topics include site selection and linkage; neighborhood pattern and design, development impacts on water, air, and soil; microclimate; industrial ecology and materials; energy; and incentive driven sustainability efforts. The course also introduces students to third party site evaluation methods including Leadership in Energy and Environmental Design for Neighborhood Development (LEED ND) and Earthcraft Communities. Students visit development projects employing innovative, sustainable design features and a number of outside guest speakers give interesting presentations.

Advanced Land Development Design (CEE 4284)

With the development and continual improvement of CEE 3274 over the past four years, much of the fundamental material necessary for students to become successful land development engineers is now being introduced during their junior year. This has had a “ripple effect” throughout the LDDI curriculum, allowing instructors to now introduce new and more advanced subject matter in CEE 4274 and CEE 4284. Historically, 4284 has focused on site grading and ADA requirements, storm sewer design and basin routing, and erosion and sediment control. Students are now being introduced to these subjects in CEE 3274 and again, in the context of a

design project, in CEE 4274. Because of this, the Curriculum and Course Enhancement Committee undertook a substantial overhaul of CEE 4284 between the previous two academic years, discussing what material to include in its 2013 offering. Some of the new items that were included in the curriculum were:

- Stormwater quantity issues, including channel velocity/energy requirements set forth in the new Virginia DCR regulations
- Stormwater quality treatment, including
 - Low Impact Development strategies and design of structural BMPs
 - Selection and installation of proprietary BMPs
 - Virginia's "Runoff Reduction Method"
- Site selection, due diligence and project entitlements
- The design-build process
- Infill development and development challenges in urban environments
- Security issues in certain developments

Advanced Land Development Design was taught by three different practitioner teams from Balzer & Associates, Draper Aden Associates, and Kimley-Horn & Associates. LDDI wishes to thank these three firms for their commitment to LDDI!

Course and Curriculum Committee Chair Cameron Palmore (Balzer & Associates) commented, "The spring semester of 4284 was very gratifying for the instructors. It is extremely satisfying to see the students so eager to learn on Friday nights and Saturday mornings when there are so many other things going on in Blacksburg. These are exceptional students!"

Geotechnics for Land Development (CEE 4544)

First offered in 2008, the Geotechnics for Land Development course focuses exclusively on geotechnical issues as they pertain to land development projects. Topics include foundations, soil stability, geotextiles, and retaining walls. This course is taught once each academic year by Dr. Joe Dove. 12 students were enrolled in CEE 4544 in the spring semester.

Student Impressions of the LDDI Program

The core mission of LDDI is to produce civil and environmental engineering graduates who are not only aware of the career opportunities in land development, but prepared to hit the ground running in this exciting field. The following are testimonials from both current and former students in the LDDI curriculum.

"Last year, I took Introduction to Land Development (CEE 3274) and Land Development Design (CEE 4274). These two classes have provided me with a solid foundation. They introduced new terms and practices that I believe are essential in the engineering profession. The intro class supplied me with the knowledge that I needed in order to successfully prepare a set of site development plans, which was required for the subsequent design class. Some fundamentals that were introduced include VDOT, VDH, VDEQ, and DCR requirements, local governmental regulations, design techniques, and an overall grasp of how everything, from sewer lines to water lines to stormwater management, has a role in our society. When the time comes for me to begin my career as a professional engineer, I will be confident in my design decisions because

of the concepts that were introduced to me in these classes.” - Julie Trumpoldt, VT CEE ‘13, Vice President of the Sustainable Land Development Club

“I graduated from Virginia Tech in the spring of 2008 and went through the Land Development Design courses during my time there. While taking these courses and working on current projects, I truly felt like I was getting real work experience. Looking back four years later, I have fully realized how much these courses offered by Virginia Tech jump started my career into becoming a project manager and understanding all aspects of working in the field of Land Development. I feel that the mentorship I received from working professionals provided me an edge over students graduating from other universities by providing me with real life knowledge of how projects progress in the development world, and not just a classroom education. The Land Development Design courses offered by Virginia Tech were a tremendous aid in the early stages of my career by allowing me to talk with and gain knowledge from real project managers.” – Kyle Bollinger, VT CEE ‘08, Project Manager with LDDI 2013 Diamond Sponsor Kimley-Horn and Associates

“LDDI has done a great job preparing me for the position I presently hold, most notably in the qualitative aspect of land development. I am conversational in most topics related to land development and have even offered design suggestions for various projects based on material I was exposed to in advanced courses such as Sustainable Land Development (CEE 4264) and Land Development Design (CEE 4274).” - Kevin Cox, VT CEE ‘12, Engineer with LDDI 2013 Diamond Sponsor Bowman Consulting

“The networking opportunities and the connection to alumni that LDDI provides definitely help students to obtain jobs and internships. Last year, I took Introduction to Land Development (CEE 3274) and Land Development Design (CEE 4274). After completing the classes, I felt like I understood what a set of site development plans should look like and how to use tools such as Civil 3D to develop those plans.” - Jessica Hekl, VT CEE ‘13, President of the Sustainable Land Development Club

“I am a member of the VHB land development team in Tysons and I use concepts that I learned in the design class (CEE 4274) every single day. On top of that, it was my CEE 4274 mentor that recommended me and forwarded my resume to the supervisor who hired me in my current position. Land development design is what I wanted to do, and because of the LDDI program, I am doing just that...” – Tim Smith, VT CEE ‘10, Engineer with LDDI Silver Sponsor Vanasse Hangen Brustlin

Practitioner Involvement

The major objective of LDDI’s Practitioner Involvement Committee (PIC) is to develop a strong and sustainable relationship between all sectors of the land development profession and the students within the Via Department of Civil and Environmental Engineering. This involvement is to help students prepare for a career in the land development design profession. The following describes some of the PIC-supported activities during the 2012-13 academic year.

Career Nights

This year, LDDI and the Sustainable Land Development Club (SLDC) continued their tradition of hosting a “Land Development Career Night” on the eve of the Civil & Environmental Engineering career fairs. Multiple representatives from various LDDI sponsoring firms attended both the fall and spring career nights and, as always, student turnout was exceptional. These information sessions serve two important purposes. First, they provide a means of further communicating to students the various roles of the land development engineer and the career opportunities available in the land development design field. Second, they allow students to meet and mingle with prospective employers in a casual, relaxed setting immediately prior to the often stressful environment of the career fair. This interaction helps students to develop the social skills necessary to succeed in the land development field. The career nights were held at the Hokie House, and many of the practitioner attendees enjoyed the opportunity to revisit one of their old haunts from their time at Virginia Tech.



Jeff Gilliland (J2 Engineers) chats with a group of CEE students at the spring 2013 Land Development Career Night, while Matthew James (Draper Aden Associates) looks on.

Football Viewing Party

When fall rolls around, few things in the Hokie community take priority over football. While last football season left many Hokies disappointed, spirits weren't entirely dampened when LDDI hosted a football viewing party for the Hokies' Thursday night showdown against the Miami Hurricanes. The event was held at Bull & Bones restaurant in Blacksburg and was very well attended by CEE students and land development professionals, some of whom made the trip to Blacksburg all the way from northern Virginia!



With the game not going in favor of the Hokies, LDDI students hone their structural engineering skills erecting plastic cows brought to the party by LDDI gold sponsor AST Cowen Design Group.

Student Club Activities

With the aid of faculty advisors Kevin Young and Randy Dymond, and working closely with LDDI, the Sustainable Land Development Club (SLDC) brings together students with a common interest in sustainability as it relates to land development design. Graduating senior Jessica Hekl served as club president this year, and enjoyed the help of officers Julie Trumpoldt, Camilo Apolinar, and Julia Hart.

During the 2012-13 academic year, the club worked on various service projects. One of these projects involved the design of a parking lot expansion for a local church. Members of the SLDC performed field surveying of the existing lot, and then developed several conceptual layouts to present to the church. The final design nearly doubled the number of existing parking spaces, and construction was completed in late June! During the spring semester, the SLDC also partnered with the FloydFest music festival. From relatively modest beginnings in 2002, the festival has grown considerably, and last year's event saw more than 12,000 attendees. With its rapid growth, festival organizers have encountered numerous challenges, including site layout, shuttling of patrons into and out of the festival grounds, and public safety issues. SLDC members developed a series of site maps to help festival organizers address these issues. In April, SLDC members provided stakeout surveying of the track for Virginia Tech's annual Relay for Life Event.



SLDC members stake out the track for Virginia Tech's annual Relay for Life fundraiser

Since it was first established in the fall 2009 semester, the SLDC has enjoyed the membership of some very impressive students. Many of these students are now making their presence felt in the professional world, while one former club president is representing the Hokie nation as a graduate student at Stanford University. At this time, LDDI would like to recognize its 2012-13 officers: President Jessica Hekl, Vice President Julie Trumpoldt, Treasurer Camilo Apolinar, and Service Project Coordinator Julia Hart. We are happy to announce that club president Jessica "Jessie" Hekl will be sticking around to work on her Master's degree, and she has generously agreed to help the next SLDC president get their feet on the ground!

Design Charrette and Competition

In April, Dewberry Associate Vice President Skip Notte visited campus and conducted LDDI's first annual Design Charrette and Competition. After introducing a real world site design problem to the student design teams, the teams were given one-hour to work toward a solution. The submittals were judged by local land development



Students dig in to their site design challenge during the first annual LDDI Design Charrette and Competition

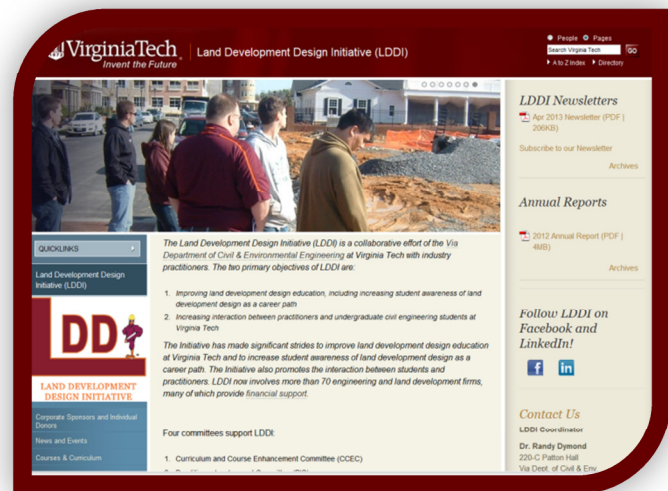
professionals, and prizes were given to the top teams. In total, eight student teams participated in the event. LDDI plans to hold another, similar competition during the spring 2014 semester.

Outreach Committee Update

The major objectives of LDDI's Outreach Committee are: 1) to promote the field of land development engineering to students and encourage their participation and support; and 2) to promote the Land Development Design Initiative to land development professionals and encourage their participation and support of the program.

Website Revisions

During the past couple of years, the Outreach Committee worked tirelessly to make major improvements to the LDDI website. In making these modifications, our goal was to make the website both appealing and useful to students and practitioners. Students are able to now easily find information about LDDI courses, upcoming events, career opportunities, and interesting land development projects. Diamond, Platinum, and Gold level sponsors of LDDI may access a student resume bank on the new website, as well as showcase projects that their firms have worked on. We hope you'll visit the LDDI website at <http://www.lddi.cee.vt.edu>.



The revised LDDI website now features the same template as other Virginia Tech sites

Social Media

To grasp the importance of social media in today's society, one need not look any further than its lofty initial offering when Facebook went public in 2012. Recognizing the role social media now plays in all of our lives, LDDI expanded its footprint in this realm during 2012-13. "Liking" LDDI on Facebook, joining our group on LinkedIn, and following our newly created Twitter account are all great ways to stay up to speed on recent happenings and upcoming events.



Search "Virginia Tech Land Development Design Initiative (LDDI)"



Search "LDDI-Virginia Tech CEE Land Development Students and Alumni"



Search "LDDI" or "@VTLDDI"

How to Get Involved with LDDI

To continue the success and sustainability of the Land Development Design Initiative, both time and money is needed from the industry. You and your company can get involved by becoming a sponsor, becoming a general member, or donating your time by serving on a committee or helping with course offerings.

Corporate Sponsorship and Individual Giving

LDDI currently has 32 corporate sponsors and an additional 28 individual donors. There are four levels of annual corporate sponsorship which afford varying levels of student/corporate interaction and exposure. For more information, please contact Kevin Young or Randy Dymond. If you as an individual wish to support the program, you may donate to the Virginia Tech Foundation and earmark the donation to LDDI.

General Membership

Since its earliest beginnings LDDI has depended heavily on the volunteer efforts of its general membership to achieve program goals. The past seven years have seen LDDI grow to become a nationally recognized leader in undergraduate land development design education. Despite the program's rapid growth, LDDI continues to embrace an organic, grass roots operational model. This model relies on the participation of industry professionals who sincerely believe in LDDI's mission. There are currently more than 450 general members of LDDI, many of whom attend semi-annual meetings, both on-campus and at locations across the state. During these meetings, these general members contribute ideas for practitioner involvement, courses, and other aspects of the program.

Committees

The LDDI Advisory Board is broken into four committees for the purpose of guiding the program in these main areas.

The **Course and Curriculum Committee** focuses on developing the land development design curriculum, individual coursework, and other student help materials. The committee's primary objective is to prepare students for a career in the land development design profession. Over the past six years, this committee has generated four new courses including Introduction to Land Development, Sustainable Land Development, Municipal Engineering, and Advanced Land Development. If you would like to become involved in the Course and Curriculum Committee, please contact the Committee Chair, Cameron Palmore at cpalmore@balzer.cc.

The **Practitioner Involvement Committee** focuses on developing a strong and sustainable relationship between all sectors of the land development profession and students at Virginia Tech. This involvement includes student mentoring, providing networking opportunities, and support for the Sustainable Land Development Club. If you would like to become involved in the

Practitioner Involvement Committee, please contact the Committee Chair, Arch Marston at arch.marston@aesva.com.

The **Outreach Committee** focuses on promoting the field of land development to students and promoting the Land Development Design Initiative to the land development professionals and encourages their participation and support of the program. This includes maintaining the website, organizing out-of-town meetings, publications, and more. If you would like to become involved in the Outreach Committee, please contact either of the Committee Co-Chairs, Ginger Greunke at ggreunke@bohlereng.com or Charlie Yowell at charlesyowell@ccl-eng.com.

The **Research and Development Committee** focuses on investigating issues in the land development industry that need an objective and scientific viewpoint. There are a number of ongoing research projects that keep VT graduate and undergraduate students working with faculty to discover new knowledge and develop solutions to current problems. If you would like to become involved in the Research committee, please contact the Committee Chair, James Patteson at james.patteson@fairfaxcounty.gov.

For more information on how to get involved with LDDI, please contact:

Dr. Randy Dymond, PE
VT LDDI Coordinator
(540) 231-9023
dymond@vt.edu

Skip Notte, PE
LDDI Advisory Board Chair
(704) 625-5088
snotte@dewberry.com

Kevin Young, PE
VT LDDI Assistant Coordinator
(540) 231-2474
keyoung@vt.edu

Roy Waugh, PE
LDDI Advisory Board Vice Chair
(703) 464-1000
rwaugh@bowmanconsulting.com

Special Thanks

The sponsorships of our business partners and individual donors are an essential component to the success of LDDI. We thank the following Firms and individuals for their generous support during our 2012-13 fiscal year:

Diamond

Bohler Engineering · Bowman Consulting · Kimley-Horn and Associates, Inc.

Platinum

Accumark Subsurface Utility Services · AES Consulting Engineers · christopher consultants, ltd
Clark Nexsen · Dewberry · Draper Aden Associates · Filterra · Jansen Land Consulting, LLC
J2 Engineers, Inc. · Maser Consulting

Gold

Balzer & Associates, Inc. · Burgess & Niple, Inc. · Cowen Design Group, LLC · Fairfax County
Gay and Neel, Inc. · Land Design Consultants · Rinker Design Associates · Tri-Tek Engineering
Van Metre Homes · William H. Gordon Associates, Inc. · Youngblood, Tyler & Associates, P.C.
Patton Harris Rust & Associates, A Pennoni Company

Silver

AECOM · Blackwood Development Company · Brookfield Homes · The Genuario Companies
MEB General Contractors · Vanasse Hangen Brustlin, Inc. · Wawa

Individual Donors

Mr. Julian B. Bell, Jr. · Mr. Gary Bowman · Mr. Tom Rust · Mr. Paul Johnson
Mr. Barry Bryant · Mr. Derrick Cave · Mr. Bob Jansen · Mr. Bill Junda · Mr. Jeff Lighthiser
Mr. Lawrence Phipps · Mr. Bill Pyle · Mr. William G. Reynolds · Mr. Patrick Shaffner
Mr. Jefferson Sinclair · Mr. Bryan Stevenson · Mr. Billy Anderson · Mrs. Mary Ann Bonadeo
Mr. Mark Huffman · Mr. Michael Cardman · Mr. Tyson Catlett · Mr. Arvil Catlett
Mr. Rick DiSalvo · Mrs. Meredith Jones · Mr. Mark Richardson · Mr. Greg Stecher
Mr. Drew Sullivan · Mr. Jack Vega · Mr. Joe Whitebread