The impact of groundwater on underground construction can be enormous and should never be underestimated. The extent and method of groundwater control is a function of some or all of the following: the type of soils present in the excavation profile; groundwater hydrology; the size and depth of the excavation; method of excavation, whether there are existing structures in the proximity; and whether contaminants are present in the groundwater. Geotechnical engineers and contractors have a range of tools at their disposal to deal with groundwater issues. These fall under a spectrum of measures varying from dewatering, grouting, to complete groundwater exclusion with ground freezing. This presentation will provide an overview of the specific techniques that fall within each general category, with discussion of the recent groundwater control methods applied at a number of projects including large transportation projects in the New York area such as the East Side Access Northern Boulevard Crossing, Second Avenue Subway, and the World Trade Center.

Dr. Schmall is a Vice President and Chief Engineer for Moretrench, a nationally recognized company providing a comprehensive range of construction and specialized geotechnical services. He has responsibility for the company's complex groundwater control projects involving grouting, ground freezing and artificial recharge for underground construction or tunneling. Paul has more than 26 years of geotechnical construction experience and has engineered and managed numerous technically complex projects in the United States and overseas over the course of his career.

*One Professional Development Hour (PDH) will be provided for attendance at dinner meeting*
October 2014 Short Course

TOPIC: Ethics and Responsible Engineering  3 Hours—3 PDH’s

SPEAKER: E. James Hamilton, PE, Esq

DATE: Tuesday, October 21, 2014

LOCATION: Valley Forge Casino, 1160 First Avenue, King of Prussia, PA

TIME: 1:30 PM to 4:30 PM – A snack will be provided

***Register and Credit Card Payment Online at www.DVGI.org ***

SHORT COURSE ABSTRACT:

This 3-hour short course examines the basic ethical issues likely to be encountered by scientists, engineers, planners, etc. in professional practice. Ethical issues and their impact on responsible engineering are examined in the context of codes of ethics, standards of care and project management concepts to provide a framework to understand business and commercial considerations and pressures on professional engineers. The program comprises 11 subject areas as will discuss each one individually.

- Registration and licensure
- Employer and employee responsibilities
- Ethical implications of design-build project delivery
- Confidentiality
- Conflicts of interest
- Whistle blowing
- Standards of care
- Innovativeness / State of the art engineering
- How to approach and resolve common ethical dilemmas
- Where to obtain guidance and resources
- Implement ethical obligations in a positive manner to deal with unreasonable client, employer or team requests.

E. James Hamilton is a ME registered professional engineer (ME. P. E. # 4000) and attorney (ME Bar # 2464) with over 24 years of experience in construction and environmental law as an engineer, project manager and attorney. Mr. Hamilton developed and taught graduate engineering courses on Environmental Law for Engineers / Scientists, Engineering Ethics, and Legal Aspects of Engineering and Construction. In addition, he developed and taught Environmental Ethics and Professional Practice seminar for the Maine Department of Environmental Protection.
The September meeting was presented by Sarah McInnes of PennDOT District 6 and Bob Crawford of James J. Anderson Construction Company. This unique presentation gave the prospective of PennDOT designing the project and the contractors engineering alternatives to account for site access and other site specific details. Their presentation was an overview of ground improvement techniques used on part of PennDOT’s multi-billion dollar I-95 corridor reconstruction effort in Philadelphia. A major aspect of the corridor reconstruction is the Girard Avenue Interchange Reconstruction (referred to as section GIR) in the Fishtown and Port Richmond sections of Philadelphia just north of I-95’s connection to the Vine Street Expressway and Center City. Sarah gave an overview of PennDOT’s approach to the project and review of several ground modification considered by PennDOT due to weak underlying soils with average N-values of less than 10 and maximum allowable settlement of less than one inch.

The widening of I-95 through section GIR requires abutments, wingwalls and modular retaining walls to be constructed on these weak underlying soils. As depth to rock in this area was frequently determined at or greater than 90 feet, shallow foundations combined with either improvement of the existing underlying soil or undercut replacement and backfill with lightweight material at the abutments, wing walls and modular retaining structures were determined as the most effective options. Ultimately, in the GR2 Section, a combination of undercut replacement and backfill with lightweight foamed concrete (Elastizel) and selective areas of ground modification using impact stone columns was implemented to support the mainline widening. The design, construction and settlement monitoring of these GR2 structures was presented.

Sarah McInnes, P.E., has spent her 17 year career in the Geotechnical Unit and has held the DGE position for the past six years. Her experience in the Geotechnical Unit includes involvement in most District highway and bridge projects from inception to construction. Bob Crawford, is the Chief Engineer for James J. Anderson Construction Co., Inc. of Philadelphia. Bob has spent his 26 year career as a construction engineer and construction manager working in the Philadelphia area and has been Chief Engineer of JJA for the past six years. Bob has overseen construction for several of PennDOT’s completed I-95 reconstruction projects. He is currently working on PennDOT’s I-95 Girard Interchange Reconstruction where he oversees all on-site construction for Sections GR1, GR2 and GR3 with an aggregate contract amount of $350 Million.
Inaugural DVGI Golf Outing

On June 27th over 40 DVGI members and friends participated in the Inaugural DVGI Golf Outing at Jeffersonville Golf Club. The weather was perfect and the refreshments were cold as the first team teed off at 12:30 that day. The Maser Consulting team took home the best team score prize, while the McCrossin Foundations/Gannett Fleming team had the dubious honor of the worst team score. Casey Grzybowski of McCrossin Foundations won the longest drive award. After the round of golf, participants gathered at the pavilion for dinner and drinks.

It was a great event to get to socialize with DVGI members and friends on a more casual venue. A lot of people were hard to recognize without their usual suit and ties. Thanks to our 16 corporate sponsors, the event was a success, providing over $2,000 for the DVGI Scholarship fund. The feedback we received from the golfers was overwhelmingly positive and we are looking forward to planning next year’s golf event in hopes it can be bigger and better. Stay tuned for details.
Employment Opportunities

Kleinfelder has nearly 2,000 employee-owners with offices nationwide and abroad. With over 50 years of experience, Kleinfelder’s reputation for providing innovative, commonsense solutions to the most complex challenges has solidified its status as a trusted partner to its global clients and a leader in the industry.

Working as a team, Kleinfelder’s bright people will deliver the right solutions.

Kleinfelder’s Cranberry office (Pittsburgh, PA) is seeking a Senior Geotechnical Engineer to lead its geotechnical engineering discipline in our exciting Marcellus-Utica Shale Program. We are currently providing our clients with multi-disciplinary professional engineering services on the most challenging pipeline, well-pad, and facility development projects in the rapidly expanding Marcellus and Utica Shale plays. Kleinfelder’s Marcellus-Utica Program offers a wide range of challenging project work and a great opportunity to develop professionally.

The ideal candidate will have the following skills and experience:

- Pro-actively troubleshoot and problem-solve with practical, client-focused solutions
- Demonstrate technical expertise in geotechnics, slope stability, foundation design and earthwork
- Excellent verbal and written communication skills
- Lead a team of geotechnical engineers and professionally develop staff at all levels
- Interface with the civil design team to develop and value-engineer practical, fit-for-use grading plans
- Develop strategic pursuits and proposals
- Organize priorities and multi-task effectively
- Collaborate with Regional leadership and Project Managers to resource delivery effectively
- Manage projects from cradle-to-grave in a fast-paced and dynamic environment
- External focus to grow client relationships and develop business through the work

Possess a thirst to learn and achieve continuous improvement in a team environment

Requirements

- Candidates are required to have 12+ years of related experience.
- Proven experience in geotechnical design, slope stability, foundation design and earthwork
- Past experience in leading diverse project teams

Proven experience in business development opportunities and preparing proposals

Education: Bachelor’s degree in civil engineering, MS degree geotechnical engineering or equivalent required. Professional Engineering license required.

Kleinfelder offers an excellent compensation and benefits package, including: medical, dental, vision, life insurance, 401(k) plan, paid holidays, and employee-ownership. Kleinfelder is an Equal Opportunity Employer.
GEOTECHNICAL ENGINEERING JOB POSTING

Mid-Level Geotechnical Engineer: Solid geotechnical engineering background w/ 2- to 4-years experience on foundation design projects. AutoCAD & PennDOT experience, with construction inspection experience and MS-degree preferred, along with a solid analytical background in soil mechanics and foundation engineering. Seeking motivated and enthusiastic team player. Salary commensurate with applicable experience and background. Please email or fax resumes to ybibal@yahoo.com or 610.777.4276, respectively. Position available in Green Hills, just south of Reading, PA.

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Employment Opportunities

DiGioia Gray & Associates (Pottstown, PA)

PROJECT MANAGER

Project Management experience needed in geotechnical/structural/civil engineering projects, primarily in relation to transmission line design, including geotechnical & geologic investigations, foundation design, line inspections, structure and line modeling, and the preparation of construction documents. Experience in power generation, Oil & Gas, and other markets is a plus.

Plans, organizes, and controls the activities of projects, as well as his/her own activities to best accomplish the successful completion of all assigned projects while operating within the guidelines established by the Company and Office Manager and within the policies and procedures established for Project Management. Strong communication skills (verbal and written) are required.

EDUCATION

Minimum: Bachelor’s degree in Civil Engineering, with focus on Geotechnical or Structural engineering from an ABET accredited program (or other degree with significant transmission line experience)
Preferred: Master's degree in Civil/Structural Engineering.

EXPERIENCE

Minimum: 10 years of experience.
Preferred: Structural and/or geotechnical engineering. Experience with power transmission line projects and a consulting services environment.

Interested candidates should e-mail their resumes and cover letters to Keith S. Yamatani (Pottstown Office Branch Manager) at kyamatani@digioiagray.com

For more information about DiGioia Gray and Associates, please visit our website: www.digioiagray.com
Employment Opportunities

DiGioia Gray & Associates (Pottstown, PA)

ENGINEER / ENGINEERING GEOLOGIST

Experience needed in geotechnical/structural/civil engineering projects, primarily in relation to transmission line design, including geotechnical & geologic investigations, foundation design, preparation of construction documents, and construction monitoring. Experience in power generation, Oil & Gas, and other markets is a plus.

Performs work with specific and detailed instructions; Works on small projects or portions of larger projects; Collects data and gathers information or documents; Performs field assignments (boring observation and construction monitoring); Performs standard computations or analysis; Prepares drawings and visual aids; Performs basic survey work; Assists on other tasks such as: preparation of permit applications, reports, material testing, drawings, and CAD work; Edits specifications; Performs research and investigations as assigned; Assists on other tasks as required; Strong communication skills (verbal and written) are required. Travel is required.

EDUCATION
Minimum: Bachelor's degree in Civil Engineering (with focus on Geotechnical or Structural engineering) or Geology from an ABET accredited program.
Preferred: Master's degree in Civil/Structural Engineering or Engineering Geology

EXPERIENCE
Minimum: 0 years of experience.
Preferred: 2+ years of structural and/or geotechnical engineering experience with power transmission line projects and a consulting services environment.

Interested candidates should e-mail their resumes and cover letters to Keith S. Yamatani (Pottstown Office Branch Manager) at kyamatani@digioiagray.com

For more information about DiGioia Gray and Associates, please visit our website: www.digioiagray.com
Employment Opportunities

DiGioia Gray & Associates (Pottstown, PA)

TECHNICIAN
Experience needed in civil engineering projects, primarily in relation to transmission line design, including geotechnical boring logging, foundation construction observation, excavation/compaction observation/testing, concrete testing, and construction monitoring. Experience in power generation, Oil & Gas, and other markets is a plus.

Performs work with specific and detailed instructions; Works on small projects or portions of larger projects; Collects data and gathers information or documents; Performs field assignments (boring observation, construction monitoring, and field testing of concrete/compaction); Clearly and readily communicates with contractors/owners/office engineers to proactively resolve potential field issues; Performs standard computations or analysis; Prepares field reports, draft boring logs and other visual aids; Performs basic survey work; Assists on other tasks as required; Strong communication skills (verbal and written) are required. Travel is required. Civil/Structural engineering experience is a plus.

EDUCATION
Minimum: Associate’s degree or equivalent experience.

CERTIFICATION
Required: ACI Concrete Field Testing Technician – Grade I; OSHA 10-hour Construction Safety
Preferred: Nuclear Gauge Safety Certification;

EXPERIENCE
Minimum: 5 years of experience.
Preferred: 2+ years of structural and/or geotechnical engineering experience with power transmission line projects and a consulting services environment.

Interested candidates should e-mail their resumes and cover letters to Keith S. Yamatani (Pottstown Office Branch Manager) at kyamatani@digioiagray.com

For more information about DiGioia Gray and Associates, please visit our website: www.digioiagray.com
Average Attendance is 60+ per meeting. In addition, we support five to ten students per meeting. Overall, we support approximately 70 students per season in DVGI meetings.

DVGI Scholarships – In 2014 there were six scholarship winners totaling $4,200. Overall from 2006 to present, DVGI has awarded $28,500.

DVGI sponsor of short course at least one per season.

DVGI first inaugural golf outing was held on June 27, 2014. This was in support of the Student Scholarship Fund and collected $2,000! Keep an eye out for the 2nd Annual Golf outing in 2015.
Geosynthetic Webinars

ASCE Webinar via the Geosynthetic Institute
11:30 AM – 1:00 PM (Eastern Time Zone)
Registration at www.asce.org/webinars

1.5 Professional Development Hours; Cost $400

ASCE 1 – October 3, 2014 “Geotextile Tubes”
ASCE 2 – November 13, 2014 “Geosynthetic in Basal Reinforcement”
ASCE 3 – December 9, 2014 “Geosynthetic Pond Liners”
ASCE 4 – January 16, 2015 “Geotextile Filter Failures”
ASCE 5 – February 25, 2015 “Geosynthetics in Roads”
ASCE 6 – March 16, 2015 “Geosynthetics in MSE Walls and Slopes”

Geosynthetic Institute Webinars
(Second Wednesday of Every Month)
11:30 AM – 1:00 PM (Eastern Time Zone)
Registration at www.geosynthetic-institute.org/webinar.htm

1.5 Professional Development Hours; Cost $250

W5 – October 8, 2014 “GSs in Hydraulic Applications”
W6 – November 12, 2014 “GSs in Heap Leach Mining”
W14 – December 10, 2014 “In-Situ Stabilization of Soil Slopes Using Geosynthetics”
Earn PDHs at 2014-2015 DVGI Events

Upcoming Dates for 2014 Dinner Meetings and events are as follows:

- November 18 - Dr. Bob Koerner
  *In-Situ Stabilization using Pinned Geosynthetics*
- February 17, 2015—Student Night at Villanova University

One PDH will be awarded for most dinner meetings that you attend.

Looking for a Geotechnical Career Opportunity?

Have you considered a student internship or a co-op position? It’s a great way to “get your foot in the door” while gaining practical professional experience. Check the new geotechnical co-op and internship links on the G-I Student page at: [http://content.geoinstitute.org/student.html](http://content.geoinstitute.org/student.html).

G-I Chapters and Local Geotechnical Groups

As a 21st Century professional organization, the G-I aims to collaborate with local, national, and international geo-professional organizations. To meet that goal, the G-I has developed a strategic plan for outreach to local geotechnical groups to assist them in becoming a Geo-Institute Chapter. Check out this great link to other G-I Chapters and local Geotech Groups across the country:

- [http://content.geoinstitute.org/groups/index.html](http://content.geoinstitute.org/groups/index.html).

The University of Delaware has a Student Chapter. Please contact the Chapter President, Lauren Lobo at email address llobo@Udel.edu for more information. Congratulations to the GIUD!

G-I Twitter Brings You Quick News Updates

Twitter is a social networking tool for posting very brief updates, or “tweets.” The G-I launched its Twitter feed in April 2009 to announce updates to its website and other relevant news items. Since then, over 150 updates have been posted and more than 144 persons have become registered G-I followers. Visit our Twitter feed at [http://twitter.com/GeoInstitute](http://twitter.com/GeoInstitute). You can check for updates or “follow” us using a Twitter account, an RSS reader, or one of the many other web applications that work with Twitter. Spread the word. Also check out the DVGI link at [www.linkedin.com](http://www.linkedin.com). Set up an account and keep up to date with business associates.
UPDATE: New DVGI Website

Over the last several months we have added some additional content to the DVGI web site located at www.dvgi.org. The web site now includes links to our corporate sponsors web pages, past newsletters, the 2014-2015 DVGI events calendar, industry related links and events, and most notably a form for online reservations to our monthly meetings.

Please e-mail any of the DVGI Board members if you would like additional information added to the website.

HAVE DVGI PUBLISH YOUR ARTICLE

Do you have an interesting article on a project or individual in your organization that you would like to have published in the DVGI newsletter? Please submit your articles for consideration in an upcoming edition to Archie Filshill at archie_filshill@golder.com

DVGI Merchandise Available for Purchase

1 GB memory sticks ($12); coffee mugs ($8); and lapel pins with the DVGI logo ($5) are available for purchase. See Ara Mouradian if you are interested in purchasing any of these items.

ASCE/G-I Members:
Read past and present issues of Geo-Strata magazine online at www.asce.org
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