

March 2015

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Upcoming ASCE Events

- March 10**  
 ASCE Monthly Luncheon
- March 21**  
 How To’s of Mastering Professionalism & Social Media
- March 22**  
 Building Structures Sustainability—Dinner & Webinar
- March 24**  
 ASCE YMG—Laurie’s, Edwardsville, IL
- March 31-April 1**  
 Missouri Concrete Conference



March Luncheon

11:30 am to 1:00 pm, Tuesday March 10, 2015

Dealing with Construction over Subsidence-Prone Karst Terrain

Speaker: Gennaro G. Marino, PhD., PE, D.GE

Topic

Karst terrain is present in the vast majority of the states in the U.S. Most of these areas relate to the presence of underlying limestone bedrock which have voids or cavities, which at some point can get filled or partially filled with overlying soil overburden, or can occasionally collapse, drawing the soil and bedrock above it downward. The presentation will discuss aspects of area development, site construction, and subsurface conditions which play a key role in subsidence type, breadth, magnitude, and occurrence frequency. The expected subsidence will be related to the potential damage. Also, various mitigation techniques and the use of a subsidence detection system with their relative costs will be discussed.

Bio

Dr. Gennaro G. Marino received his Ph.D. in Civil Engineering in 1985 from the University of Illinois. Presently, Dr. Marino has a P.E. license in 24 states and is a longstanding member of ASCE, SME, and ASTM. He has been practicing subsidence engineering for over 30 years, including investigation and evaluation of sinkhole or subsidence-prone karst terrain and foundation design on construction sites in a number of states across the U.S.

Dr. Marino has been selected to receive a 2015, Civil and Environmental Engineering Alumni Association Distinguished Alumnus Award from the University of Illinois. In 2011, Dr. Marino was selected as the Central Illinois, ASCE Civil Engineer of the Year. In 2013, The Academy of Geo-Professionals (AGP) of ASCE recognized Dr. Marino as a Diplomate Geotechnical Engineer (D.GE) for his superior expertise and experience, strong ethics, commitment to life-long learning, and continued professional development in the field of Geotechnical Engineering.

Details/Reservations

Reservations can be made at the following link to the right:

Contact Kurt at the Engineers’ Club for reservations by noon the Friday before the event. Phone: 314-533-9333, fax: 314-533-9336, email: [kurt.krispin@engineersclub.net](mailto:kurt.krispin@engineersclub.net)



<http://goo.gl/ot8Khd>

ASCE is charged for all reserved lunches. If you’ve signed up and can’t make it, please cancel with Kurt by Friday before the meeting or we will have to charge you for the meal. 1 PDH is typically awarded to attendees.

## Officers & Directors 2014 - 2015

### President

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## President's Message

*Shawna Erter*

Last year, Missouri voters overwhelmingly rejected a 10-year, 3/4 cent sales tax increase to boost statewide transportation investment. Existing fuel tax revenues have become a diminishing revenue stream as cars become more fuel efficient. Inflation has decreased our purchasing power by more than 50 percent. What was 17 cents (state fuel tax per gallon) of purchasing power in 1992 is now about eight cents and decreasing each year. Asphalt, concrete and steel cost as much as 200 percent more than they

did in 1992.

Missouri's highway system is the seventh largest in the nation, yet we rank 46th in funding per mile. Like many states, Missouri has a clear infrastructure deficit. MoDOT has already taken measures to reduce spending, including lay-offs, selling of equipment and property, and a reorganization of the districts to limit the staff and structures needed. However, that will not be enough. A legislatively-mandated citizens committee found the state needs an additional \$600 million to \$1 billion in investment per year. The highway system is divided into two categories, primary and supplementary.

- Primary = Approximately 8,000 miles of Missouri's 34,000-mile system; they include interstates and other major routes that connect between cities across the state.
- Supplementary = the remaining miles (approximately 26,000) are used primarily for local travel.

When Missouri's transportation construction budget drops to \$325 million in 2017, MoDOT will have to change the way they operate.

The Missouri 325 System plan will focus on primary roads only. The remaining mileage, our supplementary routes, will see more limited attention – basically routine maintenance. Another fallout is at a budget of \$325 million, MoDOT will no longer be able to provide matching funds for federal dollars and will lose \$400 million per year in federal funding.

The biggest impact for Missourians will be the supplementary roads (ie. Lindbergh, Manchester, etc.) which will become a patchwork of repairs. Heavy loads on Missouri bridges will be limited, and some bridges will be closed indefinitely.

I know I am preaching to the choir again, but our transportation infrastructure is failing and will continue to deteriorate without additional funding. As civil engineers, we understand this all too well so it is our responsibility to educate the public. We can assume that at some point legislature will begin to listen but we need your help. Please get involved, speak with your local representatives, speak to the Governor if you can, but most importantly, speak to the public. As obvious by the recent vote, the general public does not understand the ramifications of not funding transportation. It is our job to help them understand what is happening and what will happen in the future so that the next time a vote comes for Infrastructure funding, they will be well-educated on the matter.

Sincerely,

Shawna Erter, PE

## St. Louis History and Heritage

### The St. Louis Bridge, the Brooklyn Bridge, and the Feud Between Eads and Roebling

By Kirti Gandhi, Ph.D., P.E.

*President, Gandhi Engineering, Inc., New York*

The St. Louis Bridge, built by Captain James Eads in 1874, and the Brooklyn Bridge, completed by Colonel Washington Roebling in 1883, shared innovative techniques and established precedents for designing long-span bridges in the years ahead. Both used methods and designs that challenged engineering preconceptions. Pneumatic caissons were used to reach the riverbed to secure the bridge foundations, and daring long-span designs defied previous building standards.



Figure 2: The St. Louis Bridge built by James Eads (Williams 1877)

no one had considered using steel which was relative1y expensive compared to iron at this time. In May of 1868, Eads answered satisfactorily and conclusively all of the objections raised by the first group and prevailed. In the final design, Eads selected 520-foot for the center span and 502 feet for the two side spans.

In the summer of 1868, Eads was ordered by his physician to take a trip to Europe to recover from his failing health. During this trip, he took every opportunity to visit important bridge construction sites with deep foundations. He returned on May 1, 1869, fully recovered. In his report to the Board of Directors in September 1869, Eads discussed witnessing the sinking of masonry piers by the "pneumatic process," and claimed that he could improve this process and sink the piers of the St. Louis Bridge safely, expeditiously, and more economically than the method he had originally proposed.

After John Roebling successfully completed the Niagara railway suspension bridge with a clear span of 800 feet, he began contemplating a bigger assignment. John Roebling was appointed Chief Engineer of the New York Bridge Company on May 23, 1867, and submitted his first report on the proposed East River Bridge on September 1, 1867. A board of consulting engineers was appointed to review the plans to build the Brooklyn Bridge proposed by John Roebling. Its members were all well-known engineers of the period including James P. Kirkwood. They unanimously agreed that "there is no insurmountable obstacle to building a suspension bridge of a 1,600 foot span and even much greater." Work started on the Brooklyn Bridge in 1869, and it was opened by President Chester A. Arthur on May 24, 1883.

John's son, Washington Roebling, had a degree in civil engineering from Rensselaer Polytechnic Institution. After finishing college in 1857, Washington worked for his father at his mill, making wire ropes. After enlisting in the Union Army (1861-1865), he began working with his father in Cincinnati to construct a suspension bridge over the Ohio River. Afterwards, Washington Roebling and his wife went to Europe to study pneumatic caissons being used to set bridge foundations. He returned in 1869 brimming with new ideas after seeing a French engineer successfully use pneumatic caissons to sink the piers of a bridge over the Allier River at Vichy. Washington Roebling began to work with his father, John Roebling, who had recently begun the Brooklyn Bridge project. Shortly after Washington Roebling joined his father, John Roebling sustained a painful injury to his foot, which became infected and, less than a month after his injury, John Roebling died in June 1869 from tetanus. With his father gone, Washington Roebling, at 32 years old, was appointed by the Board of Directors to be Chief Engineer in charge of building the Brooklyn Bridge in August 1869.

Although the St. Louis Bridge and the Brooklyn Bridge were engineering successes of historic measures, financially they followed different paths. The St. Louis Bridge had problems meeting its obligations to note and bond holders as early as January 1876; it was sold in December 1878. The Brooklyn Bridge, on the contrary, was a great success due to income generated by daily commuters traveling between Brooklyn and New York.



Figure 3. The Brooklyn Bridge (Scientific American 1877)

In 1872, Eads and Roebling, two well-known and highly respected civil engineers, became associated with a well-publicized quarrel. The root of this disagreement was the design of the caissons used in the construction process, as each engineer claimed to be the first person to have designed the caisson structure used to lay the bridge foundations. The argument between Eads and Roebling, a back-and-forth series of articles written by the engineers and published in journals, survives today given the public forum in which this dispute took place.

Until 1859, only two bridges were built in the United States on pneumatic pile foundations, and the airlocks used in sinking the piles of these bridges was the invention of Alexander Holstrom. Europe was ahead of the U.S. in developing techniques for deep underwater foundations until the construction of the St. Louis Bridge in 1868. The two piers of the St. Louis Bridge were required to be founded on rock at a depth of more than 80 feet to avoid failure due to scouring. It was recorded during the sinking of the piers that a rise of only about 16 feet on top of the ordinary 10-foot flow above extreme low water, the river had scoured out more than 40 feet of sand; the rock bed upon which the caissons finally rested had a smooth, water-worn surface. The caissons created by Eads were made of wrought iron. The east pier was 82 feet long by 60 feet wide, and the west pier was 82 feet by 48 feet. The air chambers which were located at the bottom were 9 feet high. The caissons designs were very similar except the east piers had seven air locks while the west piers had five air locks.

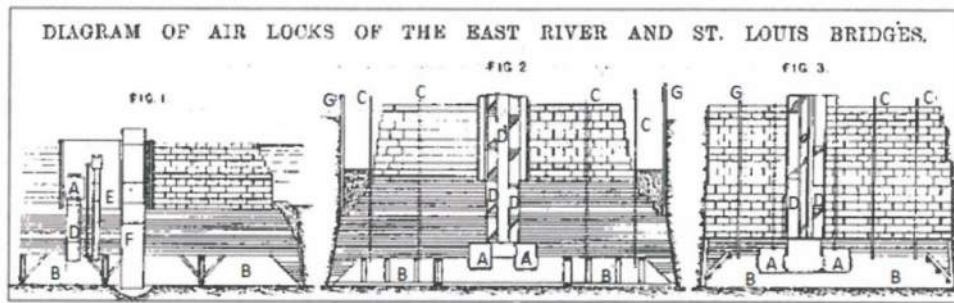


Figure 11: A – Air locks, B – Air chamber, C – Sand pipes, D – Air shaft, E – Supply shaft, F – Water shaft, G – Cofferdam (Eads 1873b)

Although the exact construction dates are somewhat unclear, it is agreed that James Eads began constructing his caissons prior to Washington Roebling. Letters from Roebling and Eads revealed that Roebling had visited Eads in St. Louis in 1870 to view the caissons and later Eads had visited the work site of Roebling to see the progress of the Brooklyn caisson. Eads' response to Roebling also

mentioned five features in the St. Louis caisson that he believed were unique by being used in combination together.

Given the harsh upbringing of Eads – who had to fend for himself since he was thirteen – and the comparatively comfortable childhood of Washington Roebling, it became evident that Roebling was not well-equipped to handle the ugly politics of a public dispute. Eads, on the other hand, had a history of working in the business world. This experience provided him with a real-world savvy in handling the dispute with skill. Eads understood how to make his point while winning over public opinion; he emerged from the fight as the winner. Roebling, on the other hand, lost his temper in a public forum and shortly after gave up the argument against Eads' claims. Years later, Roebling reflected on the harsh repercussions of the dispute due to his poor handling of the situation. More than the financial loss of \$5000, Roebling's hurt was psychological and one of isolation as a result of the feud with Eads.

Note: this is a very brief synopsis of the 16-page article by Dr. Gandhi, which has much more information about James Eads and Washington Roebling, details about the construction of both bridges, and the dispute between these two renowned engineers, and many references. It is well worth downloading from the St. Louis Section's website. Although the dispute between Eads and Roebling was unfortunate, it does not detract from their historic achievements, which are still used by thousands every day, over 140 years later.

Synopsis by Jeff Fouse, P.E., F.ASCE. Thanks to Steve Randolph, P.E., M.ASCE for suggesting this article.

The full article can be found here:

[http://sections.asce.org/stlouis/History/files/Feud\\_between\\_Eads\\_and\\_Roebling.pdf](http://sections.asce.org/stlouis/History/files/Feud_between_Eads_and_Roebling.pdf)

## Chain of Rocks Water Filtration Plant

The February issue of Civil Engineering magazine featured the Chain of Rocks water filtration plant. The article discusses the history of water filtration, supply, and distribution in the St. Louis Metropolitan area. The Chain of Rocks water filtration plant became what is considered the nation's first modern water purification plant in the United States. A link to the article can be found here:

[http://www.civilengineering-digital.com/civilengineering/february\\_2015#pg52](http://www.civilengineering-digital.com/civilengineering/february_2015#pg52)

## EWRI—St. Louis News



## *EWRI St. Louis News*

### Board of Direction Nominations Open

The St. Louis Chapter of EWRI is accepting nominations for the position of Secretary/Treasurer. According to the newly updated bylaws, the nominees will appear on the ballot at least 14 days before the Annual Meeting which is typically held in mid-September. Please send nominations to Michael Buechter ([MTBUEC@stlmsd.com](mailto:MTBUEC@stlmsd.com)) or Elise Ibendahl ([eibendahl@ch2m.com](mailto:eibendahl@ch2m.com)).

### EWRI St. Louis Monthly Speaker Series Event

The St. Louis Section of EWRI is pleased to announce our third webinar **jointly sponsored by Missouri University of Science and Technology on Thursday, March 19, 2015 at 11:30 am-12:30 pm**. Wayne Kinney, Stream Specialist from Midwest Streams, Inc. will be presenting "Lessons Learned from a Thousand Streams". Mr. Kinney will give the presentation in-person at USGS in Rolla, with the presentation broadcast live over a webinar. Registration is free for in-person (at USGS in Rolla) or webinar attendance. **Advance registration is required by end of business on Friday, March 13, 2015**. Please register online in advance at the following link: [https://docs.google.com/forms/d/1XXVOnygu3WdNC4rSefrXn6fxDfobDyf\\_yaDobn2mV4E/viewform?usp=send\\_form](https://docs.google.com/forms/d/1XXVOnygu3WdNC4rSefrXn6fxDfobDyf_yaDobn2mV4E/viewform?usp=send_form)

Registrants will receive detailed login & dial-in information or directions for in-person attendance prior to the event.

### St. Louis Earth Day Symposium - Call for Presentations

St. Louis Earth Day is accepting presentation and poster proposals from sustainability professionals to present at its annual Symposium on June 3, at St. Louis University. The Symposium theme is "Livable Communities" with focus on biodiversity, community, food and transportation within an urban/suburban environment. The St. Louis Earth Day Symposium provides educational and networking opportunities for local government officials, community leaders and professionals from diverse backgrounds in the planning and environmental fields. Participation in the Symposium provides an outstanding opportunity to support important programming, raise your visibility in the bi-state St. Louis region, network with other professionals, and share your experience and expertise with area decision makers. To send a presentation proposal, go to [www.stlouisearthday.org/events/earth-day-symposium](http://www.stlouisearthday.org/events/earth-day-symposium). Submission deadline is February 27. For questions, contact [cassie@stlouisearthday.org](mailto:cassie@stlouisearthday.org).

### **EWRI March Speaker Series Topic: Lessons Learned from a Thousand Streams**

Streams are unique in many respects and require specific analysis to determine appropriate stabilization efforts. But, twenty years of experience on hundreds of streams of varying sizes and geologic settings have provided many lessons that can be used to guide stabilization efforts. The lessons learned from practical experience can provide important insights into developing treatment options and avoiding past mistakes. This presentation will explore the most common problems and solutions in both rural and urban settings.

**Speaker: Wayne Kinney.** Mr. Kinney has 31 years of experience working for the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) and seven years' experience as the NRCS State Streambank Specialist for Illinois. He is one of the authors of the NRCS National Engineering Handbook Part 654 "Stream Restoration Design" released Aug. 2008. Mr. Kinney has practical experience throughout Illinois on all types of streams under many geologic and social conditions, and can provide assistance in problem analysis throughout the Midwest. He has trained more than 300 state and Federal employees in streambank stabilization assessment and design and has developed statewide NRCS practice standards for streambank and stream channel stabilization. He also has developed assessment and design criteria for streambank stabilization and authored a "Streambank Manual" for the Natural Resources Conservation Service in Illinois.

Thank you to our joint seminar sponsor, **Missouri University of Science and Technology!**



Please contact *Elise Ibendahl* ([elise.ibendahl@ch2m.com](mailto:elise.ibendahl@ch2m.com)) or *Dr. Robert Holmes* ([bholmes@usgs.gov](mailto:bholmes@usgs.gov)) with any questions, if you are interested in presenting, or have an idea for a topic.

## ASCE Younger Members

### March YMG Meeting:

Tuesday, March 24, 2014

6pm-8pm

#### Laurie's

228 N. Main St.

Edwardsville, IL 62025

[http://www.lauriesplacebar.com/index.php?option=com\\_content&view=article&id=47&Itemid=55](http://www.lauriesplacebar.com/index.php?option=com_content&view=article&id=47&Itemid=55)

- ❖ Professionalism and Social Media – We're having it at SLU campus. 3/21/15
- ❖ Rebuilding Together – Nick Harvey is a Co-Captain – May 2<sup>nd</sup>
- ❖ CRYMC –Jan 30-31, Houston, TX-Recap
- ❖ SIUE Golf Outing! 4/18/15 – The Orchards Golf Course, Belleville, IL
- ❖ Potential future events: Mentor Roulette – Bringing local professionals together with students for a lunch.
- ❖ End of the year parties for SIUE, SLU, MUST, MU, UMSL/Wash U

## E-Week at the Science Center - Recap

We're going to have a packed spring, so be sure to keep your eyes peeled for YM events. See you guys at Lauries's.

[Like us on Facebook!](#)

**Britt Marron, PE**



# ENGINEERING ENCOUNTERS BRIDGE DESIGN CONTEST

Hosted by St. Louis ASCE

**Who?** Middle and high school aged students in the Metro St. Louis Region (Illinois included)

**What?** Bridge Design Competition using the West Point Bridge Design software to compete locally and nationally among peers

**When?** Anytime now through March 25, 2015  
(Other dates apply to national contest)

**Prizes?** Yes! \$\$ Prizes for first and second ranked teams placing in the local contest  
(other prizes available nationally)

### Contest Notable Dates:

- National/Local Contest Registration Begins: January 12, 2015
- National Qualifying Round: January 13-April 24, 2015 (Local contest begins January 15, 2015)
- Local Contest Completion Date: March 25, 2015 (Local contest consists of one round!)
- Prizes for Local contest awarded at ASCE Luncheon on April 14, 2015 at the Engineer's Club of St. Louis (alternate May date available if necessary)
- National Semi-Qualifying Round: May 15, 2015; 1pm-3pm EDT
- National Final Round: July 10-12, 2015; Location to be announced

### Contest How-Tos:

- [Download](#) and install the West Point Bridge Designer 2015 software (free)
- Use the software to design and test a virtual bridge
- [Register](#) your team
- As part of your registration, include the St. Louis Local Code: SLBC
- Log in and submit as many designs as you like!
- View your rank online at the [Local Contest Score Board](#) (updated every 24 hours)

### Prizes

- See the [National Site](#) for prize details at national level! By entering this local contest you also enter nationally by default.
- The St. Louis Local Contest has cash prizes for 1st and 2nd place!
  - ◊ \$300 for 1st place team (total prize, \$300 for individual or \$150 for 2 member team)
  - ◊ \$200 for 2nd place team (total prize, \$200 for individual or \$100 for 2 member team)

### Other Information:

The bridge design competition allows for a truly open ended design, which allows students to participate both nationally and locally simultaneously; therefore no criteria is specified. Additionally, teams are required to be in the Metropolitan St. Louis area and must be middle or high school students (at ASCE St. Louis discretion). Winners (or their teachers or parents) are **required** to contact coordinator ([Stephanie Spann](#)) in order to claim prizes no later than March 31, 2015. Students do not have to compete and win nationally to win locally. **Students may register and submit (as often as they like) at any time during the local contest dates.**

### Questions?

Need help with the design? Unsure about contest rules? Just need more info? Please feel free to contact the local contest coordinator, Stephanie Spann ([sspann@dauidmason.com](mailto:sspann@dauidmason.com)) for questions or concerns.

## Networking Events

THE ST. LOUIS SECTION OF AMERICAN SOCIETY OF CIVIL ENGINEERS  
PRESENTS

# THE HOW TO'S OF MASTERING PROFESSIONALISM & SOCIAL MEDIA



Featuring Guest Speaker:  
**EMMA KLUES, COMMUNICATIONS MANAGER  
GREAT RIVERS GREENWAY**

**Emma Klues** is the Communications Manager for your regional parks and trails district, Great Rivers Greenway. She spent three years as an account manager and social media strategist at Elasticity, a digital marketing agency in downtown St. Louis.

Whether you're searching for jobs or screening applications, digital reputation matters and we want to help you understand yours! Join us to learn the **HOW TO'S** and get your questions answered. Learn about how to use social media to further your career and how to **AVOID** the **PITFALLS** and professional **BLUNDERS**.

**WHEN: SATURDAY, MARCH 21<sup>ST</sup>, 2015, 12:30 PM TO 2:00 PM**

**WHERE: LEE LECTURE HALL, ST. LOUIS UNIVERSITY CAMPUS**

**LUNCH WILL BE PROVIDED! – 1 PDH**

**RSVP TO BRITTANY MARRON @ [MARRONBM@PBWORLD.COM](mailto:MARRONBM@PBWORLD.COM)**



Please park in the Visitor's  
Parking on Olive Street

BROUGHT TO YOU BY THE: **ASCE** ST. LOUIS SECTION  
YOUNGER MEMBER  
COMMITTEE





***Structural Engineering Institute – St. Louis Chapter***

***SAVE THE DATE: Thursday, March 19, 2015, 6 pm***

**Dinner Meeting and Webinar**

***BUILDING STRUCTURES AND SUSTAINABILITY***

**Presenter: James A. D'Aloisio, PE**

**Learning Outcomes**

- Understand the benefits of an integrated design approach, with the structural engineer engaged
- Develop a working knowledge of the approximate carbon content of typical structural materials and systems
- Develop a functional understanding of structural insulated panels and insulated concrete forms
- Learn the importance of the structure in a building's energy efficiency
- Understand the LEED credits for regional and recycled materials

***1 PDH***

**Location: Engineers Club, 4539 Lindell Boulevard  
St. Louis, MO 63108**

**Cost: Dinner Cost to be Determined**

***SAVE THE DATE: Thursday, April 16, 2015, 1:00pm – 3:30pm***

***PRESENTATION AND TOUR OF THE NEW BOONE BRIDGE CONSTRUCTION***

***Presenter and Host: Mr. James Gremaud, PE - MODOT***

If you have questions, please contact:  
Randy Bernhardt at [rpbernhardt@esi-mo.com](mailto:rpbernhardt@esi-mo.com)  
636-240-6095



# Missouri Concrete Conference 2015

March 31 - April 1, 2015 | Rolla, Missouri

Materials | Construction | Quality Control | Ready Mix Operations | Design & Specs

Join us and our distinguished group of regionally and nationally known speakers at this year's [Missouri Concrete Conference](#), March 31 - April 1, 2015, in Rolla, Missouri.

During this affordable two-day conference, you could earn approximately 10 Professional Development Hours (PDHs).

## Conference Topics

### **MATERIALS:**

- Admixtures for Industrial Floors
- Exposed Aggregate Surface Issues
- Corrosion Prevention: Admixtures & Mix Design
- Aggregate Quality Issues
- Fine Recycled Concrete Aggregate

### **CONSTRUCTION:**

- Adding Water at the Jobsite
- Hot & Cold Weather Concreting
- Accelerated Bridge Construction
- Roller Compacted Concrete Projects: Contractor's View

### **QUALITY CONTROL and INSPECTION:**

- Practical Use of Maturity Testing
- Special Inspections
- Durability Testing via Concrete Resistivity
- MITscan for Dowel Location
- Air-Launched GPR

### **READY MIX OPERATIONS:**

- Practical Aggregate Grading Optimization
- High Early Strength Mixtures: Uses & Limitations
- Incompatibility & Unexpected Concrete Performance
- MoDOT's Readymix QC/QA New Spec

### **MAINTENANCE:**

- Concrete Pavement Preservation
- Concrete Overlays: Proper Choices
- Concrete Intersection Inlay/Reconstruction Projects
- Innovations with Poplar Street Bridge Overlay

### **DESIGN and SPECIFICATION:**

- Pre-cast Concrete Pavement

For more information, go online to <http://concrete.mst.edu>.

**...See you at the Conference!**

**MISSOURI CONCRETE CONFERENCE**  
**Missouri S&T**  
**March 31-April 1, 2015**



St. Louis Chapter of the  
Geotechnical Institute of ASCE  
Presents

## Case Histories Seminar and Student Projects

**DATE AND TIME:** April 16, 2015 5:00 PM to 8:30PM  
5:00 pm Registration and social hour begins  
5:30 pm Dinner  
6:00 pm Student posters presented  
6:30 pm Program begins  
8:30 pm Closure

Cash Bar  
Appetizers/Buffer Dinner

**LOCATION:** Engineers Club, 4359 Lindell Blvd. St. Louis, MO 63108

**COST:** \$30.00 professional; \$20.00 students. Two (2) PDHs will be awarded. Advanced payment is appreciated. When registering through the link below, credit card payment may be submitted. Payment by cash, check or credit card will be available at the door.

*ASCE is charged for all reserved meals. If you've signed up and can't make it, please cancel by 04/01/14 or we will have to charge you for the meal.*

**RSVP:** Please RSVP by 04/10/15 to the ASCE's Constant Contact:

<http://events.constantcontact.com/register/event?llr=yonzmehab&oeidk=a07eak67mtnd170ec81>

or

Nicholas Roth, Professional Services Industries, Inc. (PSI), 8669 Olive Boulevard, St Louis, Missouri 63132, phone: (314) 432-8073, email: [nicholas.roth@psiusa.com](mailto:nicholas.roth@psiusa.com)

**Doug Hardin (Schnabel) – BJC Campus Renewal Secant Wall Construction**

**Bob Gibson (IL DNR) – Mine Grouting along IL Route 15**

**Mike Marassa (Hayward Baker) – Corvette Museum Karst Damage Repairs**

**Event Sponsor**





## SIUE **ASCE** GOLF OUTING

**SATURDAY, APRIL 18**

**THE ORCHARDS GOLF COURSE, BELLEVILLE, ILL**

**REGISTRATION:** 12:30 p.m. **TEE-OFF:** 1 p.m. **COST:** \$55/PERSON - \$40/STUDENT - \$8/MEAL ONLY  
18 HOLES OF GOLF, CART INCLUDED, WITH DINNER, AWARDS, AND MEET-AND-GREET TO FOLLOW!  
MEAL WILL BE GRILLED HAMBURGER AND HOT DOGS ON LOCATION WITH MULTIPLE SIDE OPTIONS.

### AWARDS

LOWEST SCORE – LONGEST DRIVE – LONGEST PUTT – CLOSEST TO THE PIN – MARSHMALLOW DRIVE  
ADDITIONAL EVENTS AVAILABLE TO ENTER DURING REGISTRATION

FOR MEAL ONLY, SEND RSVP TO [CKOLTVEIT@GMAIL.COM](mailto:CKOLTVEIT@GMAIL.COM) BY THE REGISTRATION DATE.

REGISTRATION DUE BY 4/8/15. GOLF ATTIRE IS REQUIRED. NO STEEL SPIKES ARE ALLOWED ON THE COURSE.

TO REGISTER PLEASE COMPLETE THE FOLLOWING AND SEND WITH CHECK (PAYABLE TO SIUE ASCE\*) TO:

ATTN: ASCE STUDENT CHAPTER  
CAMPUS BOX 1800, SIUE  
EDWARDSVILLE, IL 62026-1800

CAPTAIN NAME: \_\_\_\_\_

CAPTAIN EMAIL: \_\_\_\_\_

MEMBER 2: \_\_\_\_\_

MEMBER 3: \_\_\_\_\_

MEMBER 4: \_\_\_\_\_

### SPONSORSHIPS:

STEEL: LOGO AND NAME ON HOLE, REGISTRATION TABLE, ATTENDANCE PRIZE + ONE (1) 4 PLAYER TEAM (**BEST VALUE!**) - **\$400**

CONCRETE: LOGO AND NAME ON HOLE, REGISTRATION TABLE, AND ATTENDANCE PRIZE - **\$200**

TIMBER: LOGO AND NAME ON REGISTRATION TABLE AND ATTENDANCE PRIZE - **\$100**

STUDENT: PAY FOR A STUDENT TO REPRESENT YOUR COMPANY ON THE COURSE - **\$55**

\*IF PROVIDING ANY TYPE OF SPONSORSHIP MAKE CHECK PAYABLE TO **SIUE FOUNDATION** FOR TAX REFUND.

QUESTIONS? CONTACT CORY KOLTVEIT AT [CKOLTVEIT@GMAIL.COM](mailto:CKOLTVEIT@GMAIL.COM) OR (217) 257 7244

## Employment

# OPUS GROUP EMPLOYMENT OPPORTUNITY

## ST. LOUIS, MO

The Opus Group has two open positions in the St. Louis area and is seeking a design-build Project Manager and a design-build Associate Project manager. Interested parties should visit <http://www.opus-group.com/Careers> to apply and for more information.

### To submit items to the newsletter...

*Please try to get all announcements for placement in the newsletter to the Newsletter Editor by the 15<sup>th</sup> of the month prior to publication. Items may be sent via e-mail to Joe Sturgeon at [wsturgeon@hntb.com](mailto:wsturgeon@hntb.com). MS Word files are the preferred file type. PDF files are also acceptable but may not look as sharp when inserted into the newsletter and hyperlinks might not carry through to the final version. For multiple page announcements, please consider providing a single-page flyer, concisely worded, with links provided to ancillary pages such as registration forms or other attachments. Also, please clearly include in the email subject line a concise title for the announcement and desired month(s) of publication.*

*Most news items will be available on the Section's Web Page, which can be reached via the link on ASCE National Website ([www.asce.org](http://www.asce.org)). Click on "Geographical and International Units" to link to the Section or go directly to our page at: <http://sections.asce.org/stlouis/index.html>. The Section's Website Editor is Jeff Smith e-mail: [JESmith@HNTB.com](mailto:JESmith@HNTB.com) or via feedback directly from our website.*

For more information and updates see our Web Page: [Http://sections.asce.org/stlouis/index.html](http://sections.asce.org/stlouis/index.html)

This newsletter will be sent to all Section members via e-mail. Delivery of the newsletter hardcopy by First Class mail will be made upon request. Members have the responsibility to keep their contact information in the ASCE national database up to date. Please note that the St. Louis Section is only provided with members' PRIMARY information on file at the Society level. To ensure that we can contact you, please edit your PRIMARY information to contain the information where you would like the section to contact you and how you would like your information to appear in our annual roster.

***Please be sure to keep your PRIMARY contact information up-to-date by contacting ASCE at <http://www.asce.org>, or call 800-548-ASCE (2723).***



**ASCE – St. Louis Section**  
**c/o The Engineers' Club of St. Louis**  
**4359 Lindell Blvd. St. Louis, MO 63108**