

The Nebraska

Civil

Engineer



Official Publication of the Nebraska Section of the American Society of Civil Engineers

Calendar of Events:

February:

19 - *Geotechnical Meeting* 5:30 PM at Anthony's Restaurant in Omaha.

17 - Younger Member & Student Section Discussion Panel 7:00 PM at UNL. See page 5 for details.

20 - 21 Annual Geotechnical Seminar. See page 4 for details

21 - Balsa Wood Truss Competition 1:00 PM at Westroads Mall. See Page 3 for details.

27 - E-Week Banquet 6:00 PM at The Georgetown Club, Omaha

March:

2 - Younger Member & Student Section Discussion Panel at UNO. See page 5 for details

4-5 - Water Law, Policy and Science Conference, University of Nebraska College of Law. See <http://snr.unl.edu/waterconference2004> for details.

19 - Happy Hour (FAC)

April:

22-24 - Mid Continent Regional Conference. (Steel Bridge, Concrete Canoe, and other activities)

Highlights of This Issue:

Geotechnical Conference, Page 4

Political Update, Page 4

Engineers Week Highlighted Page 3

UNL to Sponsor the Mid Continent Regional Conference. Page 5

Young Engineers handing out advice, Page 4

The Geotechnical Group Presents:

"Compression Top Load Reaching Shaft Bottom - Theory vs. Tests"

Is Bottom Cleanliness Important?

Thursday, February 19th

Featuring: **David K. Crapps, Ph.D., P.E.**
Principal Engineer,
David K. Crapps, Inc.

Dr. Crapps has extensive drilled shaft design and construction experience. He worked with the Florida DOT to develop specifications for drilled shaft construction which have been adapted and widely used by a number of other state and federal agencies.

Abstract: The presentation will provide a brief review of estimates of load getting to the shaft bottom from theory. The results of an extensive review of a large number of high capacity load tests is used to demonstrate the actual behavior of drilled shafts Practical conclusions are drawn. The presentation will include information of interest to engineers involved in the design, construction, and inspection of drilled shafts, as well as helpful tips to contractors.

Location: Caniglia's Venice Inn, 6920 Pacific Street Omaha

Times:

Social Hour 5:30
Dinner 6:30
Presentations 7:30 - 9:00

Menu: Prime Rib \$22.00
Grilled Salmon Fillet \$22.00
Chicken Parmesan \$19.00

Spouses and guests welcome
RSVP by Monday, February 16th

TO STEVE KATHOL IN OMAHA 402.493.4800
SKATHOL@SCHEMMER.COM

OR BRAD LEVICH IN LINCOLN 402.466.3911
BALEVICH@TERRACON.COM

The Nebraska Civil Engineer
February 1 2004

From the President

- Mark Stark, P.E.



Mark Stark, P.E.
NE-ASCE President

One of the great things about being president is that several folks offer you the opportunity to help them with their volunteer efforts. **Kirby Woods**, organizer of the **Future City Competition**, asked me to serve as the emcee at the Future City competition and I actually had a really good time doing that. A total of eighteen teams participated in the competition with nearly 70 participants. That number is a small percentage of the total number of students that didn't make it to the regional competition. Several other people besides Kirby helped with this event and I want to thank each of them in this article. Judges include, **Brad Chambers, Dave Meier,**

Pat Halstead, Bill Christian, Steve Kathol, Loren Tice, Lee Harrow, Ken Hansen, John Adamas, Brian Erickson, Loren Parks, Bob Losowyj, Ashwin Patel, Mike Riva, and Susan Baughn. If you know any of these folks, please acknowledge their efforts and the time they spent helping with this event. If the event held on January 31st is any indication of the amount of time and energy they spent on this, we all owe them a big thank you.

Last month's meeting sponsored by the UNL student chapter and **Carter Hubbard**, Chairperson of the Water Resources Committee was extremely well attended and I want to thank the Omaha members for making the trip to Lincoln. The speakers provided us with some interesting views concerning dam safety that I think many of us take for granted. Several of the dams in this country are nearing 50 years of age and some are in need of serious repairs. While the dams were typically constructed using agency funds, quite often the owners are private individuals and are responsible for the repairs of the dams. Needless to say, the repair of a large structure is typically well beyond the means of most individuals and there currently is no funding mechanism in place to help these individuals. There is an interim study before the state legislature this session aimed at trying to quantify the problem with Nebraska's dam infrastructure and propose remedies, but given the current budget crisis it is doubtful much progress will be made. The federal government began a program last year that made inroads into providing funding to assist the states for dam inspection, however that program only scratches the surface of the problem. All the more reason to contact your state senator and congressman to make them aware of the need to help provide funding for the several hundred dams in Nebraska needing repair.

Later in this newsletter you will find a list of the bills that PEC is watching this year. We will have a list of five priority bills later this session once all of the bills have been introduced. Those five bills will be the ones that we will have the lobbyist concentrate his efforts on.

This month's Magic Box item comes to us from H.O. Smith's "**History of Irrigation in Dawson County**" and describes the construction of a large ditch by the Farmers and Merchants Irrigation Company. In this short history, the author recognizes the importance of good engineering when he states:

"There is one mistake common to enterprises of this kind that this company was shrewd enough to avoid, the mistake of thinking that money could be saved in engineering. From the start, a thoroughly competent engineer was employed and kept on the work till it was completed, and to this fact is the success of the enterprise largely attributable. Mistakes in engineering are always costly and frequently irreparable. A good engineer knows what he is worth and will not work cheap. A cheap man guesses at his value, and guesses at his work too, and even the best guessers cannot guess right all of the time. A company that puts a costly enterprise in the hands of a guesser doesn't have to guess at the result, it is an assured failure."

2003-2004 NE-ASCE Officers

President / Management Committee Chair

Mark Stark, P.E.
Olsson Associates
(V) 402.474.5913, (F) 402.474.5160
mstark@oaconsulting.com

President-Elect / Program & Annual Meeting Committee Chair

Loras Klostermann, P.E.
Thompson Dreesen & Dorner
(V) 402.330.8860, (F) 402.330.5866
lklostermann@td2co.com

Vice President

Steve Kathol, P.E.
The Schemmer Associates
(V) 402.493.4800, (F) 402.493.7951
skathol@schemmer.com

Past President

Brad Levich, P.E.
Terracon
(V) 402.466.3911, (F) 402.466.0811
balevich@terracon.com

Secretary

Tom Marnik, P.E.
Lamp Rynearson & Associates
(V) 402.496.2498, (F) 402.496.2730
tom-m@lra-inc.com

Treasurer

John Hill, P.E.
Lamp Rynearson & Associates
(V) 402.496.2498, (F) 402.496.2730
john-h@lra-inc.com

Director / Geotechnical Technical Chair

Ed Prost, P.E.
Terracon
(V) 402.330.2202, (F) 402.330.7606
edprost@terracon.com

Director

Reed Schwartzkopf, P.E.
ESP
(V) 402.421.2500, (F) 402.421.7096
reed@espeng.com

Webmaster / District 16 Delegate

Rick Kaufmann, P.E.
Terracon
(V) 402.330.2202, (F) 402.330.7606
webmaster@neasce.org

Newsletter Editor

Peggy Meyers, E.I.
Lamp Rynearson and Associates
(V) 402.496.2498, (F) 402.496.2730
peggy-m@lra-inc.com

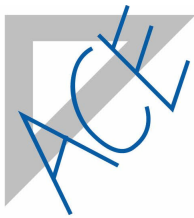
Younger Member Co-Chairs

Lindsay Madsen, E.I. & Marie Maly, E.I.
The Schemmer Ssociates
(V) 402.493.4800, (F) 402.330.7606
lmadsen@schemmer.com;
mmaly@schemmer.com

16th Annual Balsa Wood Truss Competition

If you like to see the creativity of high school students, hear and see things get broke, join us at the mall on **Saturday, February 21, 2004** for the "Truss Bustin" competition. Students from around the metro area will be competing to see who can build the most efficient bridge as their bridges are tested to failure.

The ASCE sponsored competition will be held at the Westroads Shopping Center, 102nd and West Dodge Road. The testing machine will be set up in the mall on the second level and will start at 1:00 P.M. and run until 4:00 P.M.



Career Directions for Students in Architecture, Construction and Engineering

Share your wealth of knowledge with an aspiring student. ACE, an ASCE sponsored organization, is a wonderful program aimed at mentoring today's youth in Engineering, Construction, and Architecture. I would like to extend a challenge to the members of NE-ASCE to start a local branch here in Nebraska.

The mission of the ACE Mentor Program is twofold:

- *To enlighten and motivate students toward architecture, construction, engineering, and related careers.*
- *To provide mentoring opportunities for future designers and constructors.*

ACE makes a special attempt to reach students that otherwise may not become aware of the challenges and rewards of a career in the design and construction industry.

Fields of mentoring include: Civil, structural, and geotechnical engineering, construction management, architecture, planning, building design, and other related fields. Mentoring is usually bi-weekly and includes a project, site visits, and presentation of the project in May.

For more information visit the ACE website at www.acementor.org. If you are interested in being involved contact me at peggy-m@lra-inc.com

Engineers' Week

The President Salutes National Engineers' Week ***February 22-28, 2004***



THE WHITE HOUSE
WASHINGTON

I send greetings to those celebrating National Engineers Week.

National Engineers Week highlights the contributions of America's engineers to our technological progress, infrastructure, strength, and prosperity. I applaud the professionals, educators, and students participating in National Engineers Week for your dedication to improving our quality of life and revolutionizing the way we learn, work, and communicate. By promoting a standard of professional excellence, you help ensure a promising future for all.

Laura joins me in sending our best wishes for a successful week.

E-WEEK BANQUET
FRIDAY, FEBRUARY 27, 2004
Sponsored by the Engineer's Roundtable

Featuring: "George Drouillard: Hunter, Interpreter and Sign-Talker for Lewis and Clark"

See Page 6 for more information and to register.

NE-ASCE News

PEC Update

The PEC report has come out for this month; there are a total of 47 bills before the Legislature that will have an affect on everyone in our profession. Among these bills is: LB 32, to authorize storm water management programs for certain political subdivisions as prescribed; LB 453, to impose sales tax on engineering, architectural, legal, and accounting services; LB 639, LB 640 and LB 780 to transfer funds from the Highway cash fund and trust fund to the Environmental Trust fund, NRD funds, or the general funds; LB 892, to exempt construction labor and services from sales tax; and LB LB 112 to adopt the uniform environmental covenants act. These bills and the remainder of the 47 are listed on the web page. www.neasce.org. will have a direct or indirect impact on your company or governmental agency. Everyone is encouraged to review these bills and to contact your local representative.

Young Engineers, Share Your Experiences

Are you excited about what you do? Did you recently pass the PE or the FE exam? Were you nervous during your interviews, but still managed to knock their socks off? Was your move from college life the workforce an "interesting" path? Do you have any advice for the next generation of Civil Engineers? If you answered yes to any of these questions, then you are just the person we're looking for!

February 17th at 7:00 PM the ASCE Younger Member Group will be sponsoring a meeting for the Student Chapter of ASCE at **UNL**. We are looking for a panel of 4-8 people to lead discussions and answer questions on topics such as taking and passing the FE and PE exams, looking for a job, the interview process, the transition from college life to the workforce, any advice or tips, and what we do everyday as engineers. And of course, anything else the Student Chapter would like to hear about.

A second seminar is planned for **March 2nd** at **UNO**; watch your e-mail.

So, if you are interested in participating in this informal discussion panel, please let **Lindsay Madsen** or **Marie Maly** know! Both can be reached at **402.493.4800** or yimg@neasce.org.

21st Annual Geotechnical Conference

The annual geotechnical seminar provides a forum for the presentation of a wide variety of geotechnical field, design, and construction related topics. This year Barry Christopher, David Crapps, Richard Handy, Alan Lutenegeger, Charles Mansur, James Mitchell, Jim Morrison, and Lok Sharma will be presenting.

All professionals who are involved in geotechnical exploration, design, construction, or observation are encouraged to attend. Topics covered are: Pavement subsurface drainage design, experience in design, construction and performance of geotechnical engineering projects, seismicity and IBC seismic parameters, post liquefaction remediation of earthquake damaged sites, state of the art bridge foundation construction - lessons learned from several current projects, lateral stress and the holy grail, a new look at the standard penetration test, and practical applications of the marchetti dilatometer.

A certificate verifying 7.5 Professional Development Hours will be provided to registered attendees upon request.

For more information and for a registration form visit www.neasce.org.

The Order of the Engineer

The Nebraska Section plans to hold an initiation ceremony for the Order of the Engineer at this year's Annual Meeting in May. The Section's first initiation ceremony was held at 2003's Annual Meeting, where twelve engineers accepted the Obligation.

If you are interested in joining the Order of the Engineer, contact Rick Kaufmann in Omaha at webmaster@neasce.org or 330-2202. Additional information will be forwarded to those interested.

See the Section's website, www.neasce.org, or the Order of the Engineer website, www.order-of-the-engineer.org, for additional information.

UNL Student Section to Host The 2004 Mid-Continent Regional Conference

-by Jason Hascall, Conference Planning Committee Chair, UNL.

Yes, in just a few short months the UNL campus will be invaded by hundreds of civil engineering students from 13 different schools, each with one goal in mind, to win. The schools will bring their best: Their best concrete canoes, their best steel bridges, their best students, and their best ideas. The competition will be steep and the stakes high, but with enough support, Nebraska can come out on top.

The steel bridge team is ahead of the game this year. With the final design turned in over a month in advance, they will have extra time to test the bridge, perfect their construction procedures, and give it a nice shiny finish. With a little luck and a lot of hard work they hope to win a chance to compete at the national level.

The regional bridge competition will be held on Thursday, April 22 at the former Cushman building on the edge of campus.

With the finalization of the mix design just around the corner, the canoe team will soon be placing the concrete on a familiar set of forms. That's right, this year the team decided to revisit the hull design from the most successful boat in UNL history, R². With hopes of improving last year's performance the team is combining a new mix with an old form.

The canoe competition will span three days, **Thursday, April 22 through Saturday, April 24**. Presentations will be given on Thursday, final product judging and the swamp test will be held on Friday, and the races will be held at Oak Lake on Saturday.

Of course there will also be fun competitions to bring out the best in engineering creativity. This year's include a K'nex competition, a mystery competition and a concrete bowling competition. Yes, you read that right, CONCRETE BOWLING!

The 2004 K'nex competition will take the form of a tower competition with each team trying to build the tallest tower for the least amount of money and hold the most weight. The mystery competition will be...a mystery. And last, but not least, the concrete bowling competition will be an event where teams design a concrete ball and step up to the lane. Pins count for points, but any weight that the ball loses counts for negative points. For all of you who are

NE-ASCE News



interested in throwing a strike with concrete, there will be two lanes and 15 balls set up for public participants, so stop by.

All of these fun competitions will be held on Friday, April 23.

In addition to competitions, the conference is also a place to dress up, sit down and have a nice meal. On Friday evening, we will host the annual awards banquet at the downtown Holiday Inn. We are pleased to have Joe Burns from the Thornton-Tomasetti Group Inc. in Chicago as the keynote speaker. He will be discussing the renovation of Soldier Field.

As you likely guessed, conference planning is now in full swing. Equipment is being ordered, facilities are being reserved, signs are being created and ideas are flowing from everyone. With excitement and ambition higher than we've ever seen it before, this year's conference could be one of the best ever. There will be plenty of room for spectators at every event and plenty of opportunities to vocally express your enthusiasm for Nebraska. Help us make it the best by coming to cheer us on. For a detailed schedule visit www.neasce.org.

The students at UNL are ready to show what being a Nebraskan is all about! Are you?

See you in April!

To volunteer to help with judging or other activities contact **Jason Hascall** at unleddie@hotmail.com

E-WEEK BANQUET FRIDAY, FEBRUARY 27, 2004 Sponsored by the Engineer's Roundtable

“George Drouillard: Hunter, Interpreter and Sign-Talker for Lewis and Clark”

In celebration of the bicentennial anniversary of the Lewis and Clark Expedition, our speaker, **Darrel Draper**, will provide an entertaining interpretation of life as a member of the expedition. Mr. Draper, complete with full expedition costume and voyageur accent, combines history and acting ability to portray the life of Lewis and Clark's most valuable expedition member. Half French and half Shawnee Indian, this expert hunter, Indian sign talker and wilderness woodsman was called upon by the two captains whenever they needed a nearly impossible task to be completed. The audience will relive the humor, dangers, miracles and hardships of the expedition and receive a rare glimpse of how the Shawnee spirituality contributed to the success of this amazing story of human perseverance and voyage of western discovery.

Location:

Georgetowne Club
2440 South 141st Circle
(~2 blocks north of West
Center Road on 141st Street)

Time:

6:00 PM – Social Hour (Cash Bar)
7:00 PM – Banquet & Speaker

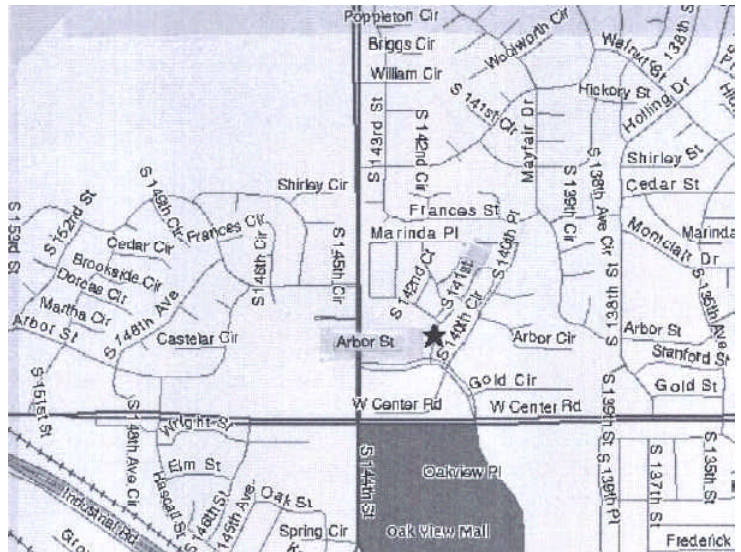
Lead Society & Master of Ceremonies:

The lead society for this year's national E-Week is the Institute of Electrical and Electronics Engineers. Our Master of Ceremonies will be **Leland Jacobson**.

Dinner Selections & Prices:

- Entrée Choices:
- | | |
|-------------------|---------|
| Prime Rib of Beef | \$32.00 |
| Chicken Basiline | \$29.00 |
| Grilled Salmon | \$34.00 |

(All dinner selections include a mixed garden greens salad, parsley buttered new potatoes dinner roll & butter, coffee or tea and choice of Chocolate Raspberry Torte or Turtle Cheesecake Dessert.)



In order to provide a total attendance count to the Georgetowne Club, only advanced reservations will be accepted. Advanced reservations, menu choices, attendee's name and payment must be received by **4:00 PM, Tuesday, February 24, 2004**. Checks should be made payable to the **"E-Week Roundtable."** Please clip the reservation form below (add an additional sheet if required), attach payment and send to the address shown

Send to: Elizabeth Hunter, Leo A. Daly Company
8600 Indian Hills Drive, Omaha, NE 68114

Attendee's Name(s)	Quantity	Menu Choice	Total Cost
_____	_____	Prime Rib x	\$32 _____
_____	_____	Chicken Basiline x	\$29 _____
_____	_____	Grilled Salmon x	\$34 _____
Total Cost			_____