



The NEBRASKA Civil Engineer

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



EVENT CALENDAR:

September

17th - Structural Group Meeting - McKenna' Blues Hall - Omaha

October

Construction Group Meeting

ISSUE HIGHLIGHTS:

From The President

ASCE Nebraska Section Volunteers for Habitat for Humanity

Nebraska Member wins National Award

New Faces Needed - Young Engineers Making a Big Difference in the World

Outreach Kits Available

PRESENTING

September 2009

The Structural Group Presents:

"What Real BIM is for the Steel Industry"

Thursday, September 17th

Featuring: Mark Holland, P.E. Chief Engineer - Paxton & Vierling Steel Co.

Mark is the Chief Engineer for Paxton & Vierling Steel Co. (PVS) in Omaha Nebraska. PVS provides structural steel for commercial and industrial projects. Mark has managed the Engineering / Detailing as well as the Project Management Departments at PVS since 1987. Aside from his duties as Chief Engineer, Mark is also an active member of the AISC Committee on Specifications, is Vice-Chairman of the AISC Manual Committee, and Co-Chairman for the AISC Committee on Information Technology. Mark was the Chairman of the AISC Ad-Hoc Committee for the selection of the AISC EDI Standard. Mark holds a BS and MS from the University of Oklahoma and is a registered engineer in the states of Nebraska, Oregon, Minnesota, Iowa, Washington, South Carolina, California and Virginia.

Location: **McKenna's Blues Hall**

7425 Pacific Street
(Southwest of 72nd and Pacific) Omaha 68114

Times:

Social Hour	5:30
Dinner	6:30
Meeting and Presentation	7:30

Menu:

- **Smoked Brisket** - (Steamed Veggies, baked potato, and corn on the cob)
- **Roasted Chicken** - (Pasta medley, rice pilaf, and corn on the cob)
- **Smoked Pork Loin** - (Steamed Veggies, baked potato, and corn on the cob)

Spouses and guests are welcome. All meals are \$17. Student meals FREE. Price is \$10.00 without a meal. RSVP by 12 PM Tuesday, September 15th to **vp@neasce.org**. Subject Line: ASCE RSVP

Deadline for articles to be published in the October newsletter will be September 28th. Email articles to Aaron Grote at editor@neasce.org

2008-2009
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From the President

- John Hill, P.E.



John Hill, P.E. President of ASCE

Hello ASCE Nebraska Section members! Okay, here it is the near the beginning of September and the next exciting year of the Nebraska Section ASCE! I know everyone says this but the summer seemed to go so quickly, but this seemed to be the shortest yet. I have really tried to enjoy the time off from the summer, but with the school year starting all my duties are quickly lining up to take away any free time.

First, I would like to remind everyone of the upcoming Structural Conference. This year it's on Friday, September 18. Be sure to check out the web site and flier that's been mailed out.

Did I mention I enjoyed my time off for the summer? Well, my time off for the summer consisted of nine Fridays and Saturdays building a house for Habitat for Humanity. Back at the Annual Meeting, I mentioned that I would like to see increased volunteerism within the ranks of the Nebraska Section. I tried to organize a work weekend with ASCE members to help with building a house for Habitat for Humanity. I was a little disappointed with the turnout, but very impressed with some students! The only ASCE members that helped were one student from UNO, Matija Radovic, and one student from UNL, Cassie Vogel.

Cassie even did a small write up to be included with the news letter. These students jumped right in and did work they had never done before and I think they enjoyed it. I thank them for contributing to Habitat for Humanity.

And along my theme of volunteering, I want to thank John A. Thomsen, ESU#3 High Ability Learner Advisory Coordinator, who has stepped up to be our Future City Coordinator. However we still need an ASCE member liaison to help coordinate his activities with ASCE, and he will still need other Engineers to be school advisors and judges, but we have an urgent need to have an Engineer speak to school teachers on September 24 about Future City. I have been told he would like 30 to 40 minutes of your time, in the morning or afternoon, your choice. Please contact me if you are willing to help. I am also contacting the Red

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(Continued from Page 1 - From the President)

Cross to offer the service of our Section. More to come on that topic.

We still have a few positions open on committees and subsidiary organizations including: Management Technical Group Chair, Transportation Technical Group Co-Chair, and Engineering Round Table Representative. So, if you've wanted to be more involved or you're asked to step up and help in some capacity for Nebraska Section of ASCE please consider doing so.

ASCE Nebraska Section Volunteers for Habitat for Humanity

The Nebraska Section of the American Society of Civil Engineers (NE-ASCE) helped build a house in Omaha, NE on Saturday July 11, 2009. John Hill, the Treasurer of NE ASCE, has been helping with the Neighbors South Coalition Project for the past 7 years. Malika, a member of the University of Nebraska at Omaha chapter of ASCE and Cassie Vogel, a member of the University of Nebraska—Lincoln chapter of ASCE, helped install siding to the front of the house. Malika and Cassie both used their concrete mix design knowledge to pour the footings for the back porch of the house. Malika likes to volunteer as a way to thank Omaha for aiding his studies in Nebraska. "Habitat for Humanity is a great way to give back to the communities that have given me so much." said Cassie Vogel. Everyone helping out on Saturday enjoyed the experience and hope to do it again.



Nebraska Member Wins National Award

Nebraska ASCE member Bruce I. Dvorak, Ph.D., P.E., M. ASCE, Matthew Morley, PhD., P.E., M. ASCE, and Patrick Denning, P.E. have been awarded the Samuel Arnold Greeley Award.

The Samuel Arnold Greeley Award is presented for papers on the design, construction, operation, or financing of water supply pollution control, storm drainage, or refuse disposal projects.

The 2009 Samuel Arnold Greeley Award is presented to Bruce I. Dvorak, Ph.D., P.E., M. ASCE, Matthew Morley, PhD., P.E., M. ASCE, and Patrick Denning, P.E. for the paper, "Relative Impact on GAC Usage Rates of Operating Strategies for Treatment of Contaminated Groundwater." Practice Periodical of Hazardous, Toxic, and Radioactive Waste Management, April 2008.

In this work, several operating strategies for GAC adsorption systems were explored, using the groundwater treatment systems at the former Nebraska Ordnance Plant as a case study. The alternative methods of operating the existing GAC columns to minimize GAC usage rates were evaluated. A mathematical model was utilized to simulate alternative operating scenarios along with variable influent concentrations. It was found that blending effluent from parallel columns would result in the lowest GAC usage rate when the target effluent C/C₀ was > 0.3. Lead-lag operation would be best when the target effluent C/C₀ was < 0.1. Only between a targeted effluent C/C₀ of 0.1 and 0.3 did the percent of the mass transfer zone contained in the column become important. Decreasing the TCE influent concentration prior to the GAC treatment system by air stripping may reduce the GAC replacement costs but has significant new capital costs. Because contaminant levels in the extraction wells vary, influent segregation has the potential to reduce GAC usage rates by up to 65% with a relatively low capital expenditure. The results of the work are original, informative and are useful for engineering designs and operation of GAC treatment systems to be used for groundwater remediation.



Bruce I. Dvorak, PhD., P.E., M. ASCE

Save the Date - 139th Annual ASCE Conference

What professional activities have you scheduled for October of this year? The Kansas City Section will be hosting the 139th Annual ASCE Conference this year on October 29 – 31, 2009. Please mark your calendars to attend. If you've considered attending an Annual Conference in the past, but were concerned about the time and cost for travel, this will be your opportunity.

For more information, see <http://content.asce.org/conferences/annual2009/index.html>

Pre-College Outreach Program Taps into Social Media to Bolster Outreach Efforts

Interested in helping kids learn about civil engineering? The new school year is just ahead and ASCE's Pre-College Outreach program invites you to check out the new online volunteer center for civil engineers. It is set up to help people learn about pre-college outreach and get connected with others engaged in this fun and important educational initiative. Links to ASCE's Pre-College Outreach Facebook group, and Flickr page are located at the site so visitors can use these tools to bolster their pre-college outreach efforts.

In addition, profiles of pre-college outreach champions and events around the country give visitors a glimpse of outreach in action. Volunteers are encouraged to upload photos and share their events and lessons learned through the discussion boards.

Pre-College Outreach page: <http://www.asce.org/outreach/index.html>

New Faces Needed: Young Engineers Making a Big Difference in the World!

ASCE is recognizing diverse, talented engineers, ages 30 years or younger, who are making their mark on the world, by naming them the New Faces of Civil Engineering in 2010. One of ASCE's New Faces will be selected by the Engineers Week Foundation to represent the Society as civil engineering's "New Face." This individual will be featured in a full-page ad in USA TODAY during Engineers Week, Feb. 14-20, 2010. ASCE encourages all eligible members to apply today. Nominations must be e-mailed to newfaces@asce.org by October 5.

Get more information about New Faces and download a nomination form.

More information: <http://www.asce.org/professional/diversity nominate-new-face-for-2010-award.cfm>

Nomination form: http://www.asce.org/files/doc/professional/2010_New_Faces_Nomination_Form.doc

Engineers Without Borders

Engineers Without Borders-USA (EWB-USA) is a national, non-profit organization whose mission is to partner with developing communities to improve their quality of life through the implementation of environmentally and economically sustainable engineering projects, while developing globally responsible engineers. EWB-USA is at the forefront of a movement that sees engineers as having the skills and expertise to address the most significant issues affecting world health and poverty, including water purification and delivery, sanitation, and sustainable energy systems.

The University of Nebraska at Omaha and Lincoln recently formed a joint EWB student chapter. Currently, they are working on developing a project to improve the quality of life for the people of Kianjavato, Madagascar, and are working in cooperation with the Henry Doorly Zoo's ongoing conservation efforts.

Professional members can work on student projects as mentors, conduct project design reviews, train students or other professional members, or work on their own projects. You do not even have to be an engineer to participate. Skills such as project planning, construction, fund raising, coordination, and public health are essential to the success of EWB projects.

We are excited to announce a Chapter is forming in the Omaha area. The Omaha EWB Professional Chapter formation and activities in the spring and summer of 2009 will entail officer elections at an April 8th meeting (5:30pm at Terracon's Omaha office), chapter organization, mentoring support for the UNO/UNL student chapter, and planning for fund raising / project initiation in the fall of 2009.

If you would like to get involved in EWB or learn more, please look for future meeting announcements or contact Sara Hanson at sara.hanson@tetrtech.com. For more information about EWB-USA, go to www.ewb-usa.org.

Thanks to an affiliation agreement, ASCE members who join (or renew membership in) EWB-USA through the ASCE website receive a significant discount on their yearly dues – \$60 instead of \$100! See www.asce.org/ewb for details, and check www.neasce.org for meeting announcements.



Become a Key Contact

Are you interested in knowing what the 111th Congress is up to? Join the Key Contacts Program - ASCE's grassroots advocacy program. You will receive email about public policy issues important to our profession and learn how to interact with our elected leaders. See www.asce.org/keycontacts for more information and to sign up.

Engineering 101: Outreach Kits Available

Outreach kits are available for your use. See www.neasce.org for more information (including flyers for engineers and teachers/ troop leaders) and email outreach@neasce.org if you can volunteer your time to a teacher requesting a kit or would like to check one out for a group of youngsters you already know.

Learn more and join!

Any ASCE member can join the Key Contact Program. Visit <http://www.asce.org/keycontacts>.

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