2001-2002 Nebraska Section Officers

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Bob Kalinski

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Rick Kaufmann

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Brad Chambers

District 16 Council/150th Anniversary Champion
Joe Waxse

NE-ASCE Annual Meeting & Banquet
(Spouses and Guests Welcome)

DATE: Friday, May 17, 2002

LOCATION: Council Bluffs Casino & Hotel
(formerly Harveys)
One Harrah’s Boulevard
Council Bluffs, Iowa
(9th Avenue exit off I-29 in Council Bluffs)
Ballroom III, Salon A

TIMES: 5:30 - 6:30....Social Hour
6:30 - 7:30....Annual Meeting
7:30 - 9:00....Dinner
9:00 - Late....Entertainment at Mr. G’s Lounge and Harrah’s Casino

MENU: Choice of Slow Roasted Prime Rib with Rosemary Au Jus or Tri-color Tortellini w/Mushrooms & Asiago Cheese (includes Garden Salad, Rolls & Butter, Black Forest Torte with Raspberry Coulis, Coffee and Tea)

PRICES: Prime Rib - $23.50; Tortellini - $18.00

RSVP with Menu Choice by Monday, May 13 to Brad Levich at 402/466-3911 or president-elect@neasce.org

EIGHTH ANNUAL GOLF OUTING

Friday, May 31, 2002
12:00 to 5:30 P.M.
Fontenelle Hills Country Club
1102 Country Club Court
Bellevue, Nebraska
$31 per player
(includes 18 holes of golf, carts, and flag prizes)
See Page 7
President’s Comments

Thanks for the Great Year and Great Efforts!

At this time, my term as President of the Nebraska Section is winding down and I want to use this final column to recap some events of the past year and to thank those who have made the efforts of our Section successful and worthwhile.

The year started off, of course, with the events of September 11, which brought enhanced public awareness of the role of civil engineers in society. In addition to the direct impacts of the attacks on the World Trade Center and the Pentagon, the recognized threat of terrorism brought increased attention and reflection on our roles in the protection of infrastructure and public safety. As a result of this recognized threat, the Nebraska Section (along with ASCE National) started and continues to examine and develop ways to make our members available in case of any similar events in our area. We are still looking for more volunteers in this arena so let us know if you would be interested.

On the local level, we did have a bit of a slow start and our September meeting kicked off the season in early October. In the mean time, our Section was grappling with our largest annual budget ever and an aggressive goal of continued and increased efforts in university scholarships and activities that promote civil engineering to school aged children. We have been able to keep our budget balanced and on track thanks to an increase in Section dues that was approved by our members last year and a record amount of grant money that we received from ASCE National.

January and February were our busiest months as always and our members were active as volunteers for activities including Future City, E-Week, and the Truss-Bustin’ Contest. Personally, it was really not until my role as President that I fully realized the magnitude of the commitment and efforts of individuals who have consistently worked on those events including Kirby Woods for Future City and Bruce Harris for the Truss Busting Contest.

All in all, it has been a great year and our members have stepped up to the plate as always. In addition to those acknowledged previously, I would also like to thank a few individuals who have provided exceptional service to the Section and myself: Past President Daryoush Razavian for always being available to provide answers and advise, John Hill for his conscientious management of our budget and for taking on the time demanding role of Treasurer, Tom Marnik for serving his second year in the also time demanding role of Secretary, Joe Waxse and Ryan Paradis for their planning efforts for the 150th Anniversary Celebration, and Rick Kaufmann for providing us with a consistently excellent newsletter. These individuals have shown that it is not the flashiest or loudest, but rather the most consistent and persistent performers that make things happen.

Certainly, we did not change the course of mankind, or even Civil Engineering for that matter, but that was not our goal and we were successful at improving and making others aware of our little corner of the world. Along with our successes, however, there are some goals that were not accomplished, including having a meeting and getting increased participation from our members outside of Lincoln and Omaha; that goal will be left to present and future Board members.

At our Annual meeting on May 17, Brad Levich shall succeed to the Office of President of the Nebraska Section. Mark Stark will be become President Elect, Loras Klostermann will succeed to the role as Vice-President, while Reed Schwartzkopf will be one of our new Directors. I want to thank everyone for the opportunity to serve as President of the Nebraska Section and look forward to seeing as many of you as possible at the Annual Meeting on May 17.

Bob Kalinski, President Nebraska Section, ASCE

University of Nebraska-Lincoln Steel Bridge Team Places 2nd at Regional Competition

In a close contest with Southern Illinois University at Carbondale, the UNL Steel Bridge Team placed an overall second of eleven teams at the 2002 ASCE Mid-Continent Regional Conference, hosted by the University of Oklahoma.

UNL’s second place overall finish was a result of high scores in several different areas of the competition: they placed second in the Speed of Construction category, second in Bridge Weight, first in Aesthetics, and second in Deflection.

The Nebraska Section congratulates the UNL Steel Bridge Team, and cheers them on to greater success at the National Competition being held at the National Student Conference on the campus of the University of Wisconsin-Madison.
The Nebraska Civil Engineer

150th Anniversary Update

Area Students Learn About Civil Engineering

Members of the Nebraska Section Younger Member Group recently visited local grade schools in an effort to promote civil engineering in conjunction with ASCE’s 150th Anniversary. Three trips to two different elementary schools occurred this spring, with additional visits planned. Nate Dickerson, Daren Konda, and Ryan Paradis traveled to Mary Chadwick’s 5th grade class at Hillside Elementary and Davina Faimon’s 6th grade class at Loveland Elementary.

The educational outreach program included two major components. The first part of the session involved materials from the “Building Big” program that was aired last year on PBS. The students watched a video entitled “Thinking Big and Building Small”. The video demonstrates basic civil engineering principles by illustrating various aspects of building design. The video introduces such concepts as loads, forces, stability and strength. In addition, the importance of teamwork in the design process is emphasized.

After watching the video, the students were able to participate in a hands-on activity. The students were asked to build a bridge out of drinking straws and straight pins. The bridge had to span approximately 1 foot and be able to carry a “load” of one softball. The students enjoyed this activity by putting their imagination and creativity to work. Many unique designs were constructed. Afterwards the ASCE facilitators load tested each bridge and pointed out strengths and weaknesses of the different models.

The sessions were well received by both the students and teachers. If you know of other teachers who would be interested in this type of activity, contact Ryan Paradis at rparadis@hdrinc.com.

Right: A team of students constructs their bridge.

Below: Members of Davina Faimon’s 6th grade class at Loveland Elementary. From left, Calvin Hansen, Jimmy Helm, Paige Ackerman, David Lynch, Davina Faimon, Julia Sisson.

UNO Student Chapter Update

The University of Nebraska at Omaha’s Student Chapter has had about 8 events this year, typically chapter meetings with speakers. They were also involved in this year’s “Truss Bustin’” competition, and in science fair judging at St. Margaret Mary’s School.

Next year, their goals are to increase membership by 20% and attendance by 35%, and to take part in ASCE’s Steel Bridge Competition.

Outgoing officers:
Audra Hanson - President
Sara Cranell - Vice President
Andy Jenkins - Treasurer
Tony D. Krause - Secretary

Incoming officers:
Tony D. Krause - President
Kyle Domminisse - Vice President
Bryan Guy - Treasurer
Andrew Barry - Secretary

Tony Krause, Incoming Pres.

Above: Daren Konda illustrates different bridge components to Davina Faimon’s class.
How Did We Get Here?

In October 1998, the ASCE Board of Direction adopted Policy Statement 465, which supported “the concept of the master’s degree as the First Professional Degree (FPD) for the practice of civil engineering at the professional level.” This policy generated considerable discussion among the ASCE membership. As a result of this discussion, the ASCE Board formed the Task Committee for the First Professional Degree (TCFPD) in January 1999 and charged it with “developing a vision of full realization of ASCE Policy Statement 465 along with a strategy for achieving this vision.”

The TCFPD researched the education, experience, licensing and certification requirements of other professions; studied the history and forms of civil engineering education in the US and elsewhere; and reviewed current and future challenges to and opportunities for civil engineers. Their work resulted in a report entitled Engineering the Future of Civil Engineering (available on www.asce.org) and Revised Policy 465: Academic Prerequisites for Licensure and Professional Practice. The essence of the policy includes the following (note: the underlined text indicates a change to the original Policy 465):

The American Society of Civil Engineers (ASCE) supports the concept of the Master’s degree or Equivalent as a prerequisite for licensure and the practice of civil engineering at a professional level.

In October 2001, the ASCE Board of Direction unanimously adopted Revised Policy 465 while at the same time recognizing that this policy will not be implemented overnight. It will require considerable effort to achieve full realization of the policy’s intent, but the positive consequences for the profession will be immeasurable.

Things Aren’t What They Use To Be

The basis for the policy is rooted in the significant and rapid changes that have occurred in the civil engineering profession. Some of these changes include the following:

- Onset of globalization
- Rapid rise in information technology
- Diversification of society
- Explosion of knowledge and technology in engineering and construction
- Enhanced public awareness and involvement in engineered projects
- Complexity of civil infrastructure systems within the United States

These changes, along with a national trend of reduced credit hours for the bachelor’s degree, have created an untenable situation. Civil engineers are expected to possess simultaneously greater breadth of capability and specialized technical competence than that required of previous generations. With fewer credits in the civil engineering curriculum, it will become increasingly difficult for civil engineers to do more with less. Enter Policy 465.

As With Competent Engineering . . . The WHY question?

The most frequently asked question within the profession regarding this important question is—is this change merely for the sake of change? No, it is not. With an eye toward the future of our profession, requiring education beyond the baccalaureate degree for the practice of civil engineering is consistent with other learned professions. The body of knowledge gained, and the skills developed in the formal civil engineering education process, are NOT significantly less than the comparable knowledge and skills required in other professions such as law, medicine, accounting, pharmacy, occupational therapy and others. While four years of formal schooling were considered the standard 100 years ago, over the course of the 20th century, other professions have lengthened their educational requirements as a result of the advances in knowledge and the other changes mentioned above. Engineering, however, has not.

The TCFPD defined the practice of civil engineering at the professional level to mean practice as a licensed Professional Engineer (PE). They further defined admission to the practice of civil engineering at the professional level to mean professional engineering licensing, which requires:

- A body of specialized knowledge as reflected by a combination of a baccalaureate degree and a master’s or equivalent (MOE);
- Appropriate experience; and
- A commitment to lifelong learning.

The required body of specialized knowledge includes a technical core, technical electives, a non-technical core, and technical and non-technical courses to support individual career objectives. The Task Committee on Academic Prerequisites for Professional Practice (TCAP) — known as “TEE-CAP-CUBED” — is currently working on further defining the Body of Knowledge (BOK) and the MOE.

How Does This Policy Impact Me?

A primary goal of the policy is to change the state licensing laws or rules in the future to require the MOE as a prerequisite for taking the PE exam. There are 55 jurisdictions, each self-regulated. The National Council of Examiners of Engineering and Surveying (NCEES) are currently considering modifying their model law for licensure; a number of alternative models are being considered. ASCE is currently working with NCEES and is advocating that the MOE be incorporated into the forthcoming model law.

continued next page
Given ASCE’s goal and the movement by NCEES, how is the policy likely to be implemented and what will be the impact? For starters, any currently licensed engineer will not be affected by this policy. Civil engineers who do not have an MOE will not be required to obtain one to remain licensed. It is anticipated that each state will select a date in the future by which the MOE will be required as a prerequisite for taking the PE exam, and thus the policy will affect future practitioners.

What about current civil engineering students in the pipeline? For the next 15-20 years, these students will not be required to have an MOE, either. These students will, however, be strongly encouraged to pursue additional education beyond their bachelor’s degree.

TCAP is currently trying to identify two to four states willing to implement this policy in the next five years. It is anticipated that once a few states adopt the policy, additional states will participate. This was the case with accounting, which is in the later stages of implementing a 150-credit-hour requirement for professional practice. The effort, which began in the mid-1980s, has been successfully adopted by over 40 states, with full compliance expected by 2010.

Let’s Be Realistic … How Long is it going to take to implement?

TCAP and ASCE have a vision for an enhanced role for civil engineers in the year 2030 and beyond. This policy is directed toward the future of our profession. The implementation of this concept will not happen overnight. ASCE cannot mandate how and when it will be implemented, or who will implement it. To be sure, ASCE will be an active partner with ASCE members, other engineering professions, the National Society of Professional Engineers (NSPE), the National Council of Examiners of Engineering and Surveying (NCEES), state licensing boards, the Accreditation Board for Engineering and Technology (ABET), deans, department heads/chairs, and faculty to achieve this policy directive. Still, the ultimate full implementation will probably not occur for 20 or more years. However, this concept is a legacy for future generations of civil engineers. It will provide tomorrow’s civil engineer with a body of knowledge, appropriate experience, and overall outlook to be leaders and integrators of the engineered environment.

Questions

For more information, please contact Jeff Russell at Russell@engr.wisc.edu, Stu Walesh at STUWALES@AOL.COM or Tom Lenox at tlenox@asce.org.

E-Week “Truss Bustin’” Competition

The 14th annual “Truss Bustin’” event during Engineers Week was a huge success for local Omaha Area high school students.

The Balsa Wood Truss Competition was held during Engineers’ Week in February at the Westroads Mall in Omaha. Altogether 85 trusses were entered in the competition. All trusses were loaded at third points across a 24-inch span to failure. Trusses were entered from Burke, Millard North, Gross, North, and Northwest High Schools. The winning truss from North High weighed 50.5 grams (1.8 ounces) and carried a total load of 474 pounds. The second place truss weighed 40.4 grams (1.4 ounces) and carried a total load of 324 pounds. The third place truss weighed 36.2 grams (1.3 ounces) and carried a total load of 280 pounds. The load-to-weight ratio of the winning truss was 3.518. (Note: Weight is taken to the 1.25 power in calculating the load-to-weight ratio)

The top three finishers in the Fourteenth Annual Balsa Wood Truss Competition for 2002 are:

1st Place: Justin Cole (North High)
2nd Place: Jim Russell (North High)
3rd Place: Dan Wilwerding (North High)

1st place prize was $150, 2nd place was $75, & 3rd place, $50

Bob Kalinski, President NE-ASCE, Bruce Harris, E-Week and High School Chairman, and Ervell Staab, North High Truss Contest Contact participated in presenting prizes and a framed certificate of their accomplishment.

A special thanks to all the Nebraska Section members that helped to contact the metro area high schools and assisted during truss testing, the UNO Student Chapter and Dr. Chris Tuan who helped with weighing trusses, testing and documentation during the contest. Thanks to the Civil Engineering Round Table for our prime location at the Westroads Mall and those High Schools that participated. We are looking forward to more participation from the other metro high schools in the years ahead.
Omaha Engineer Named SWE’s “Distinguished New Engineer of the Year”

Omaha - Lamp, Rynearson and Associates, Inc., has been advised by the Society of Women Engineers (SWE) that Pam Dingman, P.E., has been named the Distinguished New Engineer of the Year. Dingman began her involvement with SWE in 1992, and has served in many leadership positions. She is currently serving as Eastern Nebr. Section Treasurer.

Dingman has an impressive list of prior awards. In 1998-1999 she received the SWE Eastern Nebraska Section Outstanding Member Award. Under her leadership as President, the Eastern Nebraska Section received an award for 100% retention. In 2000 Dingman received the Nebraska Society of Professional Engineers (NSPE) Young Engineer Award - she was the first woman to receive this award.

Dingman received her BS Degree in Civil Engineering from the University of Nebraska-Lincoln in December 1991 and is a Registered Professional Engineer in the state of Nebraska. She is active in Leadership Omaha, NSPE, Omaha Women’s Summit, and chairs a local American Consulting Engineers Council Common Grounds Committee. She has two children, eight-year-old Steven and five-year-old Thomas.

Dingman joined LRA in 1996 as a project engineer, and was promoted to project manager three years later. She has extensive experience with subdivision and site design projects, including design and preparation of plans, specifications, cost estimates and construction advertising, plus construction administration. She has prepared preliminary and final plats and coordinated between clients, attorneys, elected officials and government personnel to obtain approved subdivision agreements and improvement plans. She also presents projects to the local planning boards and city councils.

Visit our website for updates and information over the summer:

www.neasce.org

Nebraska Section Members Awarded Life Membership

Effective January 1, 2002, ASCE National awarded Life Membership to four distinguished members of the Nebraska Section. Our congratulations goes to:

- Mr. Roy Cline, M.ASCE - Omaha, NE
- Mr. Richard Erixson, M.ASCE - Crawford, NE
- Mr. Larry Fischer, M.ASCE - Lincoln, NE
- Mr. Terry Schlaht, M.ASCE - Omaha, NE

These Life Members will be recognized at the Annual Meeting and Banquet on May 17, 2002.

2002-2003 Officers Nominated

According to the Bylaws of the Nebraska Section, the President shall appoint a Nominating Committee of not less than three members at least 60 days prior to the Annual Meeting. The nominating committee was comprised of the President (Bob Kalinski), President-elect (Brad Levich) and Past President (Daryoush Razavian). The Bylaws state that the nominating Committee shall choose one or more candidates for election to the offices of President-elect, Vice President, and each of the two Directors prescribed by the constitution; and obtain the consent of the Nominees to serve, if elected. The election of the Officers will be held at the Annual Meeting and the nominee receiving the highest number of votes cast for each office will be elected. All subscribing members present at the Annual Meeting shall be allowed to vote. The President-elect, Brad Levich, shall succeed to the Office of President at the close of the Annual Meeting. The slate of officers selected by the Nominating Committee for approval of the Subscribing Members at the Annual Meeting are:

- For President-elect: Mark Stark
- For Vice President: Loras Klostermann
- For Director: Reed Schwartzkopf
- For Director: Ed Prost

The Section welcomes the incoming officers and thanks outgoing officers for an outstanding year.
Join us for an afternoon on the links with your fellow Section members and their guests. The outing is a great opportunity to get to know your peers, show off that swing, and get out of the office on a late spring day.

Contact Joe Waxse in Omaha at 330-2202 or jawaxse@terracon.com by May 28 to register.

Directions:
From Kennedy Expwy/Hwy 75 exit at Chandler Rd.
Travel east about 1/2 mi. Turn right (south) on Fort Crook Rd.
Pass Southroads Mall and veer Left on Galvin Rd.
Stay on Galvin Rd. for about 3/4 mi., then turn left (east) on Gregg Rd.
Follow signs to Fontenelle Hills Country Club, 1102 Country Club Ct.

Tiger won’t be there, but maybe Kirby will.
Last Month’s Meeting

Forty-four people attended the March Meeting at Jerico’s in Omaha. Machelle Krajewski and the UNO Student Chapter organized the meeting, featuring Dr. Libby Jones of the University of Nebraska’s “I² Lab” at the Peter Kiewit Institute in Omaha. In addition to the technical aspects of ITS, questions were raised and addressed about possible privacy, law enforcement, and “homeland security” issues.

The meeting attendees were:

- Loras Klostermann
- John Hill
- Norm Nelson
- Machelle Krajewski
- Steve Kathol
- Rick Kaufmann
- Libby Jones (Speaker)
- Ryan Haas (UNO Student)
- Dayouh Razavian
- Jay Ling (UNO Student)
- Aaron Gaul
- Brad Levich
- Dan Mahrt
- Mike Baumert
- Bryan Gay (UNO Student)
- Andrew Barry (UNO Student)
- Virgil Oligmueller
- Mark Stark
- Ed Prost
- Sonn Jaster
- Larry Zinser
- Brad Chambers
- Jeremy Befort (UNL Student)
- Jeremy Bowers (UNL Student)
- Mike Naccarato
- Mike McIntosh
- Ray Moore
- Jim Rowings
- Maher Tadros
- Aaron Buetner
- Bob Kalinski
- Lindsay Madsen
- Daren Konda
- Steve Botum
- Helen Bottum (Guest)
- Marie Myh
- Audra Hansen (UNO Student)
- Nathan Dickerson
- Dusten Olds (Guest)
- Cory O'Brien
- Jeff Kopocis
- Mike Langner
- Plus 1 unregistered

2002 Important Dates

May:
17 ANNUAL MEETING & BANQUET, Harrah’s - Council Bluffs
31 Nebraska Section Annual Golf Tournament Fontenelle Hills Country Club, Bellevue

July:
18-19 ASCE Continuing Education Seminar* - “Design-Build Contracting”, Omaha
18-19 ASCE Continuing Education Seminar* - “Earthquake Induced Ground Motions”, Kansas City
25-26 ASCE Continuing Education Seminar* - “Construction Administration for Engineers”, Omaha
25-26 ASCE Continuing Education Seminar* - “Pumping Systems Design for Civil Engineers”, Omaha

September:
19-20 ASCE Continuing Education Seminar* - “Wind Loads for Buildings & Other Structures”, Omaha

October:
3 MONTHLY MEETING (Hosted by Structural Group)
4 ANNUAL STRUCTURAL CONFERENCE

November:
7-8 ACI/PCA Seminar -- ACI 318-02 Building Code, Omaha

*For information about ASCE Continuing Education Seminars visit www.asce.org/seminars/index.cfm

A Note from the Editor

The Nebraska Civil Engineer is intended to be Section members’ source of LOCAL information. For many years, it has served its purpose, providing readers with meeting information, an address from the President, other tidbits of news of local interest your editor digs up, and news regarding ASCE National. But we can do more to make this newsletter better, with more relevant information. I would like to bring a more local or regional focus to the newsletter. In order for that to happen, I need your help.

I invite the student chapters and faculty at UNO and UNL (and other area universities), and the Section’s Technical Groups, Committees, and Officers to submit technical articles, reports, editorials, or any other information you feel would be beneficial to share with the membership.

I would also like to see regular input from the general membership. I’m sure there are some readers out there who want to:

• Express an opinion on one of several controversial issues currently being raised, such as “first professional degree”, design-build issues, disaster response readiness, dues increases, etc. (write an editorial article)
• Hire qualified people (place a job posting)
• Highlight high-profile or interesting projects or techniques they are proud of (write up a case history, send some photos)
• Solicit more bids (submit an RFP)
• Promote their firm’s/agency’s name (underwrite the newsletter and get an ad in the Professional Directory)
• Spread their firm’s/agency’s news (send press releases)

We all receive Civil Engineering and ASCE News, which are fine publications. But I for one would love to see The Nebraska Civil Engineer filled every month with local news and articles from my fellow Nebraska Section members, not from Washington. I encourage you to take the time to contribute.

Send ideas for items that could be included in this newsletter, articles, or information to:

Rick Kaufmann
Terracon
2211 South 156th Circle
Omaha, NE 68130-2506
Office No.: (402)-330-2202
Fax No.: (402)-330-7606
email address: editor@neasce.org

Next term will be my last as Editor. As Editor, I have had the opportunity to meet and learn from many interesting people. It has been a terrific experience, but it’s time for fresh blood. Although I will remain Editor next term, I’d like to have a period of overlap to show my successor the ropes. If you enjoy a creative challenge, have an eye for graphics and desktop publishing, and want to get to know (and hassle) the Board Members and Committee Chairs, this is the job for you. Let me know if you are interested.
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For underwriting information, contact Ben Higgins, Fund-Raising Committee Chair, in Lincoln at (402) 441-7589 or bhiggins@ci.lincoln.ne.us
The Nebraska Civil Engineer

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