

CIVIL ENGINEER



T H E N E W S L E T T E R

Tacoma ♦ Olympia Section of the
American Society of Civil Engineers



Volume 60

Founded 1930

NOVEMBER 1998

**CIVIL ENGINEERS MAKE THE DIFFERENCE!
THEY PROVIDE THE QUALITY OF LIFE!**

The **Civil Engineer Newsletter** is published for the Tacoma/Olympia Section of the American Society of Civil Engineers monthly from September to June.

To submit ads or articles of interest, please contact the President of the Section or the Editor. Information must be submitted not later than the 15th of the month prior to publication.

For address changes and corrections, contact the Editor.

President

Jim Brigham..... (253) 383-4940
JBrigham@GeoEngineers.com

Pres.-Elect.

Kathy Hargrave . (253) 474-9449

Secretary

Chris Beckman... (253) 798-3557

Treasurer

Kristina Nelson.. (253) 591-5765
knelson@ci.tacoma.us

Director

Perry Shea..... (360) 493-6002
passca@mail.tss.net

Director

Michael Hale..... (253) 591-5789

Younger Members

Brian Matthews . (360) 491-3399
bmatthews@skillings.com

Past Pres.

Rebecca Vader.... (253) 272-3343
timv@halcyon.com

Editor

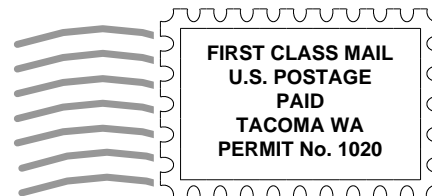
Nancy Searle..... (253) 564-5885
jessailor@aol.com

Section Home Page WEB address:
<http://www.asce.org/gsd/sections/tacoly/tacoly.htm>

WEBmaster: Richard Swanson
(360) 357-2788 Swanson@wsdot.wa.gov

CIVIL ENGINEER
The NEWSLETTER

c/o Searle J&N
502 Contra Costa
Fircrest WA 98466



NOVEMBER MEETING

Tuesday, November 10, 1998

Worthington Center, Saint Martin's College

Social: 6:00 P.M.

Dinner: 6:30 P.M.

Program 7:30 P.M.

The dinner cost is \$20.00 for members, and students are half-price.

The program is free to all.

GROUND FREEZING for Civil Applications

Speaker: **Dan Mageau**, RKK-SoilFreeze Technologies

RKK-SoilFreeze Technologies is a construction company specializing in artificial soil freezing for both environmental and civil applications. They have developed a cost-effective method to freeze ground for all types of civil applications, including:

- temporary shoring
- underpinning of existing structures
- temporary ground stabilization landslide stabilization
- tunneling
- liquefaction mitigation
- groundwater cutoff

Ground freezing has been used for shoring and groundwater cutoff on thousands of projects worldwide for over 100 years, usually on large, complex projects where other methods have failed. It was common practice to mobilize large refrigeration plants to the site to freeze the ground quickly. Until now, because of the large equipment and lack of competition, the costs for

ground freezing have typically been very high, making it non-competitive for most conventional shoring projects.

Reservations

Call Connie Linden at (253) 383-2422 or Mark Leingang, (360) 754-9339 by the close of business, Friday, November 6, 1998 or access the Section Home Page at: <http://www.asce.org/gsd/sections/tacoly/tacoly.htm> and click **Reservations**.

Directions to St. Martin's Worthington Center

From Tacoma: I-5 south to Martin Way (Exit 109); bear right to College Street (the next signaled intersection); turn left on College; travel south to Pacific Avenue; turn left on Pacific to the entrance to Saint Martin's Pavilion on the left.

From Olympia: Take either Pacific Avenue to Saint Martin's or I-5 north to Sleater-Kinney/College Street (Exit 108); continue to College Street; turn

ASCE Activities

Our October Speaker was Gary Carroll, ASCE District 12 Director from the Southern Idaho Section. Gary spoke to us about his ideas and positions regarding various issues to be discussed at the ASCE Board of Directors meeting in Boston on October 17-18, 1998. If you want to contact Gary regarding outcomes of that meeting or other issues, he can be reached at (208) 345-5865 or via EMAIL: gary.carroll@us.mw.com

Go Global with ASCE

Engineering Tomorrow's Leaders — That is the theme for the '98 - '99 ASCE membership drive. You can participate in the campaign by:

A.....asking a friend to join ASCE

S.....supporting their participation

C.....challenging them to achieve their goals

E.....embracing the benefits of ASCE

Recruiting builds the foundation for future success! In addition to strengthening the Society, Sections and Branches in each Division within each Zone achieving the highest growth percentage of membership will receive a \$250 honorarium. So, sponsor a colleague during the membership drive and increase your resources in ASCE's global network. Increased membership means more influence. Through the Society, you can achieve an even stronger impact on the legislative and regulatory issues affecting civil engineers. A larger membership means greater opportunities for networking and exchanging ideas. Don't forget to encourage young civil engineers to join. Civil engineers 35 years or younger can join the Younger Member Group. For a membership packet, call 1-800-548-2723 or e-mail your request to: member@asce.org or visit the ASCE Web Site at: www.asce.org



Our October Speaker was Gary Carroll, ASCE District 12 Director from the Southern Idaho Section. Gary spoke to us about his ideas and positions regarding various issues on the agenda at the ASCE Board of Directors meeting in Boston on October 17-18, 1998. Two items of importance to our section are *Unified Dues* and the *First Professional Degree*. Based on the summary of Board Actions on these issues, his input was largely ignored. The board defeated the motion regarding implementation of Unified Dues. However, the Board did rescind its earlier policy that the implementation of Unified Dues requires a Constitutional amendment.

A policy statement was adopted stating that ASCE supports the concept of the first professional degree being the Master's Degree. Also approved, in concept, was the Education Activities Committee plan for publicizing and promoting the policy of the First Professional Degree.

The Masters Degree topic received a lot of discussion at our section meeting - with most of the comments in strong opposition. Gary indicated that one of the reasons ASCE wants to do this is to put engineers on more equal footing in the public perception with doctors and lawyers. However several of our members pointed out that practical engineering knowledge is gained through experience. This should lead to continuing education based on a practical interest in the material, not a mandated curriculum that occurs prior to gaining experience. In addition, the purpose of the Professional Engineer Exam is to test this experience. Designation of a Masters degree as the first professional degree diminishes the value and purpose of the P.E. Exam.

I personally hold a Master of Engineering degree obtained through a program designed for engineers who went into the work world and then came back. About half of the class had worked, while the other half, (including me) had not. It was obvious in class who had been working - their questions were always much more practical oriented towards applying the coursework to solving real problems, not textbook examples.

My education would have been richer had I been in this category. It seems to me that designation of the Masters as the first professional degree sends a message that this type of practical education is of little value. We all know engineers without bachelors or masters degrees that have enormous practi-

cal experience - these people include some of the best engineers around. But I can also say that in the geotechnical business, a masters degree helps a great deal because that is currently the level where most of the theory and practice is taught.

In any event, our national board has already taken a position on this issue. I called Gary to ask if there is an appeal process and he referred me to Mike Kupferman at National Headquarters. Gary also faxed me a copy of the policy statement that includes a plan for promoting this policy. I will be happy to pass this policy on to anyone interested. Please e-mail questions, comments, statements, opinions and/or letters to the President to me.

Jim Brigham, President
Tacoma Olympia Section
JBrigham@GeoEngineers.com

COMMENTS from the NET

Read what others are saying on the topic of *First Professional Degree*. Visit the ASCE Web site at: <http://www.asce.org>

jtoth posted 07-20-98 10:47 PM ET (US)

I am doubtful that the first professional degree will be any great boon to the profession. It seems rather self serving to the academic (sic) side. The marketplace has certainly placed more emphasis on the Master's degree in recent years. However there are numerous employment situations appropriate for graduates with the "lowly" B.S. Currently, an engineer is not considered a professional until registration which generally follows 4 years of working experience. Would the new first professional degree (sic) change that so the PE can come without the experience? That would be a major step backwards for the profession in my opinion.

WSMOORE posted 09-08-98 09:42 PM ET (US)

I feel that the Masters degree should be recognized as the first professional degree for engineers, especially Civil Engineers. Given the additional humanities courses now required for most undergraduate engineering programs, and the general unwillingness by the profession to create a five-year Bachelor's degree program, there is simply not enough time to introduce, let alone teach, all aspects of engineering design to students. The Bachelor's degree program, as it always has been, should be used to establish a solid foundation in engineering theory and to introduce students to design. . .

There's more and you can even respond. Get connected—visit the web.

Nominations

Nominations are being solicited for the Government Engineer of the Year and the Young Government Engineer of the Year Awards. To qualify, you must have your EIT and be younger than 35 to apply for the Young Engineer award. The Section winner will advance for consideration of national honors. Contact Rebecca Vader for application forms.



BOOK REVIEW:



A Civil Action
by Jonathan Harr

I read this book and found it interesting and hard to put down. It helped me to better understand our legal system and the relevance of work by hydrogeologists and civil engineers in important lawsuits.

As reviewed on BarnesandNoble.com:

This authoritative, in-depth, revealing, and wonderfully-written book tells the true story of an obsessed young lawyer who gave up everything to fight two prestigious law firms and the corporations they represented, on behalf of the families of Woburn, Massachusetts, whose loved ones had died because they drank the town's water.

>From The Publisher:

The lawyer had not wanted the case at first -- it was too big, too complicated, too risky. It concerned a cluster of childhood leukemia victims in a small town north of Boston where the city wells had been poisoned by industrial chemicals. Two of the nation's largest corporations, each with a plant near the wells, stood accused. Against his better judgment, the lawyer found himself drawn into the case. In this book, you'll meet the Harvard Law professor who told the lawyer that this case was worth a billion dollars, that it was the sort of lawsuit that would ring the alarm in corporate boardrooms across America. And you'll meet his adversaries, foremost among them a crafty old trial lawyer, chairman of the litigation department at one of the biggest and most feared law firms in Boston. The case turned into an epic struggle that took nine years of the lawyer's life. At the heart of the legal system, he was confronted by powerful and well-connected interests who would do anything to win. In the end, the struggle nearly cost the lawyer his sanity. He sacrificed everything - home, friends, and reputation - not for money, but for what he believed to be the truth.

ASCE Annual Calendar

Our section holds open meetings once a month from September through June.

Meetings are typically scheduled for the second Tuesday of the month, but do vary for special speakers or joint meetings. Locations alternate

between Tacoma and Lacey and times vary between lunch and dinner meetings.

Our preliminary schedule is shown below. Please check our web page or contact a house chair for firm information one week prior to each listed meeting. Or, for a monthly meeting announcement and newsletter mailed to your address, please join the Tacoma-Olympia Section (in addition to the national organization).

We have also included the Seattle Section meeting for your information -

Contact HLA @ 425-990-4164 for further details.

November 10 - Lacey - Dan Mageau, RKK Soilfreeze
November 11, Seattle Section meeting, Ballard Yankee Diner, Large Diameter Piles at Safeco Field

December 9 (Wed) - Tacoma, Joint Dinner with Seattle Section, Executive Inn, Fife.
Andrea Riniker, Executive Director, Port of Tacoma, Vision of the Next Century

January 12 - Tacoma Lunch - Fife City Bar & Grill, Jeff Carpenter, WSDOT, 11th Steet Bridge

February - Lacey Saint Martin's Engineering Banquet Dinner

March 9- Tacoma, Joint Lunch with S. A.M.E.

April 13 - Lacey

May 11 - Tacoma

June 8 - Lacey

In addition, the local Board conducts open meetings, generally the first Wednesday of the month at 5:30 PM. Locations vary, so please contact the President for the location if you would like to attend a Board meeting.

PELP Programs

For additional information about these or other PELP courses, or to have your name added to the course announcement bulletin mailing list contact Ron Bucknam, PELP Program Director. PELP Program Director, at 206/543-1178; fax: 206/685-3836; or E-mail: rbucknam@u.washington.edu.

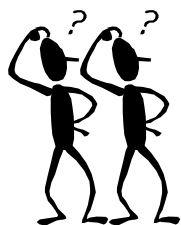
All courses will be held on or near the University of Washington campus, unless noted otherwise. To register for a course, please call Engineering Professional Programs at 206/543-5539. Early registration fees are applicable until two weeks before commencement of the scheduled course.

Hydrologic Modeling and Design of Retention/Detention Facilities
November 18-20,

Groundwater Monitoring Wells: Management and Use for Drinking Water Purveyors December 2 and 3,

Wetlands Ecology, Protection and Restoration December 15 - 17, (field trip on 12/17)

ENGINEER JOKE



There was an engineer who had an exceptional gift for fixing all things mechanical. After serving his company loyally for over 30 years, he happily retired. Several years later the company contacted him regarding a seemingly impossible problem they were having with one of their multi-million dollar machines. They had tried everything and everyone else to get the machine fixed, but to no avail. In desperation, they called on the retired engineer who had solved so many of their problems in the past.

The engineer reluctantly took the challenge. He spent a day studying the huge machine. At the end of the day, he marked a small "x" in chalk on a particular component of the machine and proudly stated, "This is where your problem is". The part was replaced and the machine worked perfectly again. The company received a bill for \$50,000 from the engineer for his service. They demanded an itemized accounting of his charges. The engineer responded briefly,

One chalk mark.....\$1
Knowing where to put it.....\$49,999

It was paid in full and the engineer retired again in peace.