



# Civil Engineer

# THE NEWSLETTER

MARCH 2004



## SAME Joint Meeting

### LID—The Salishan HOPE VI Redevelopment Project

**SPEAKER: Mr. Cameron Teller**, Geologist & Engineering  
Manager, Parametrix, Bremerton

*Mr. Teller is a Geologist and Engineering Manager with the Bremerton office of Parametrix. His background includes project management of a wide variety of site development, railroad, roadway, bridge, fiber optic alignment, and intermodal facility design projects and environmental investigation and remediation projects for private and public clients.*

Low-impact development (LID) is an ecologically friendly approach to land development, designed to reduce impacts on watersheds and other natural resources. The Salishan HOPE VI Redevelopment Project in Tacoma, Washington is a public housing redevelopment project which incorporates at least some low-impact development design elements. With 1200 new units on 200 acres, its large size makes it an interesting example. Salishan is also unusual in its wide variety of stakeholders: federal and local public housing authorities, a private developer, a private homebuilder, a residents' council, and the National Park Service, in addition to the normal regulatory and municipal agencies. The original objectives for the project included many low-impact development standards pertaining to water management, streets, zoning and density, soil restoration, and landscape/forest design. The current design takes a practical approach to these objectives, and the project team made a decision early in the process that potential low-impact development approaches had to be economically practical to be included. In April 2003, King County authorized three demonstration projects as part of its Low Impact/Built Green Ordinance, featuring innovative stormwater management practices in combination with affordable, environmentally friendly housing. Surrounding counties and municipalities have also explored low-impact development as the trend continues to grow. While most projects will not achieve all their original low-impact development goals, designers should be prepared to understand the basics of low impact development in order to meet the needs of an increasingly eco-friendly market.

## SAME Joint Meeting

Wednesday, Mar. 10th

Lunch Meeting  
11:30am - 1:00pm

La Quinta Inn  
1427 East 27th Street  
Tacoma, Washington  
253.383.0146

Conference Room: Oak Room

Social	11:30am - noon
Lunch	noon-12:30pm
Program	12:30-1:00pm

**Lunch Buffett** (includes dessert, coffee, and iced tea)

Cost: \$15.00/person\*  
\*1/2 price for students

**RSVP by Monday, March 8**

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## President's Corner by Connie Linden

The Engineer's Week booth, sponsored by our Section and SAME, and held at the Auburn Super Mall on February 21 and February 22, was another successful venture in our outreach efforts. Special thanks to the volunteers, SAME members Lt. Mike Gray, Al Driemeir, Lt. Helen Juan, Capt. Kevin Golinghurst, and Section members **Chris Beckman** and **Michael Hale**, who gave of their time and enthusiasm. Also, thanks to WSPE and the Pacific Science Center for inviting the Section to share in this joint venture to celebrate Engineer's Week.

On the political front, **Jeff Highley**, ASCE Seattle Section Legislative Committee Chair/AELC Representative, Section members **Kris Kaufman** and **Bernie Hargrave**, and ASCE National, through the "Washington Alert," informed our Section of two bills introduced this session, Senate Bill 6207 and House Bill 2570, entitled: "Allowing Water-Sewer Districts to Consider Fees in Selecting Engineering Services." In summary, Jeff Highley reports that these bills would undermine the State's qualification-based selection law, which requires the State to examine a bidder's qualifications before discussing price for a project. In addition, these bills would create unnecessary and time-consuming hurdles to contracting for design services. The good news is both Senate and House Bills "died" in committee. Jeff informs us that the AELC lobbyist and ACEC did testify against the Senate and House Bills. In addition to the AELC and ACEC efforts, Jeff Highley submitted written testimony to the House Local Government Committee, and received a response from the ranking Republican member that the Bill would not be voted out of committee. Jeff will provide us with a brief overview at the April 20th meeting, to be held at Saint Martin's College.

The Section's April monthly meeting, scheduled for April 20th, marks a special meeting, at which we will celebrate the accomplishments and commitment to the Society by **Life Members**. I encourage you to attend this meeting to honor these dedicated individuals. Also at our April meeting, District 12 Director, **Greg DiLoreto**, will update the Section on the ASCE National front. This is a good opportunity to meet with our Director and learn of the current ASCE National issues.

I hope to see you at this month's meeting.

Best regards,

**Connie E. Linden**

Tacoma/Olympia Section President 2003-'04

*"...these bills would undermine the State's qualification-based selection law, which requires the State to examine a bidder's qualifications before discussing price for a project."*

## We Need YOU!



The section has agreed to man the booth at the Western Washington Fair again this year. We will be there the first five days of the fair, so mark your calendars and plan now to set aside some time to come out and help us. It is a fun experience and a great outreach project. Contact **Connie Linden** or **Bernie Hargrave** for more information.

## Younger Members

The Section thanks **Susan Melton** for her efforts and commitment to the Section's Younger Member Forum. Susan is an asset to our Section, and we wish her well as she moves on to other endeavors.

**Wes Jones** of Sitts-Hill Engineers has graciously agreed to continue Susan's efforts, and assume the position of Chair of the Section's Younger Member Forum. We welcome Wes, and look forward to upcoming Younger Member events.

## Help Grow ASCE and Your Colleagues Discover Benefits!



ASCE counts on our members to help us grow every year by actively participating in the Member-Get-A-Member Drive. The Drive is vital to ASCE...in fact it's one of the most effective ways to bring in new members for ASCE. But it does more than just help ASCE. Our members tell us that they enjoy helping their colleagues discover the professional benefits of ASCE membership. It gives members the opportunity to get involved with ASCE and contribute to their colleague's success.

This year, the Member-Get-A-Member Drive offers participants more opportunities than ever to win prizes. Drawings will be held at the end of every quarter to award prizes to members who have sponsored colleagues during that quarter. With prizes changing quarterly, and ranging from cash awards to gift cards, there will be something to please everyone throughout the year.

## Press Release

# Civil Engineers Define a New Body of Knowledge for the 21st Century

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February 25, 2004

On Wednesday, Feb. 25, ASCE released the report, *Civil Engineering Body of Knowledge for the 21st Century: Preparing the Civil Engineer for the Future*, outlining a broader Body of Knowledge required for future civil engineers. This landmark report represents the first known effort by an engineering discipline to redefine the Body of Knowledge required for professional practice, and provides the foundation for sweeping changes in the formal education of future civil engineers.

WASHINGTON, D.C. - Many Americans would be surprised - if not alarmed - to learn that the people responsible for designing their roads, bridges, buildings and drinking water are only required to hold a bachelor's degree while doctors, lawyers, physical therapists, accountants and even elementary school teachers are expected to hold professional and graduate degrees. Despite practicing a profession where technology and techniques are ever-evolving, the educational requirements for today's young engineers are less than their counterparts' of 150 years ago. The American Society of Civil Engineers (ASCE) released a report today, *Civil Engineering Body of Knowledge for the 21st Century: Preparing the Civil Engineer for the Future*, outlining a plan to broaden and deepen the "Body Knowledge" required for future civil engineers. The knowledge, skills and attitudes that will be required of an individual entering the civil engineering profession in the 21st century must be broadened emphasizing leadership principles and technical specialization.

"Civil engineering must restructure its 150-year-old educational model to meet the challenges of the 21st century," said ASCE President Patricia D. Galloway, P.E., F.ASCE. "The next

generation of civil engineering professionals will be engaged in increasingly complex work, requiring knowledge both broader and deeper than the current engineering education provides."

At the turn of the last century, civil engineering graduates completed 155 credit hours, compared to the 125 credit hours earned by most of today's students. Civil engineering students take at least 20 fewer credits than did counterparts in the 1920s and they take a whole semester less of technical and professional engineering courses at a time when the complexity of civil engineering is escalating. In comparison, law and medical students at the turn of the last century had no more than one to four years of training, compared to the average eight years of undergraduate and graduate work today.

"Most professions - business, law and medicine - do not consider the bachelor's degree a professional degree, yet engineering does," said National Academy of Engineering President William A. Wulf. "With growing global competition and the explosion of new technology changing the shape of the profession, we must restructure the way we educate engineers."

The first of any engineering discipline to develop a proposal to elevate educational prerequisites for future practicing engineers, the report recommends that a graduate degree, or the equivalent of 30 credits, and practical experience be required in addition to an undergraduate degree before a civil engineer can sit for the licensure exam and practice professionally. The plan will lead to the revision of current undergraduate and graduate programs to reflect the basic skills and knowledge that will be expected of professional civil engineers, and may eventually lead to the creation of new programs. The Body of Knowledge is developed to be flexible in how future civil engineering students pursue their education. The trend towards distance learning programs and high-quality corporate and government agency education will not be ignored and can be cultivated as an optional to traditional graduate school programs for future civil engineering student.

"As the steward of the civil engineering profession, ASCE must lead the development and implementation of this new educational model," said ASCE Task Committee Chair Jeffrey S. Russell, Ph.D., "The current four-

year bachelor's degree is becoming inadequate formal preparation for the practice of civil engineering in the 21st century."

ASCE's Committee on the Academic Prerequisites for the Professional Practice of Civil Engineering developed the recommended new Body of Knowledge that will serve as the foundation for the education of civil engineers in the future. Through this new Body of Knowledge, ASCE can influence changes to the civil engineering curricula, as well as necessary changes in licensure requirements, to ensure that the profession will meet its obligations to serve public health and safety in the increasingly complex technological world of the future. Knowledge, skills and attitudes that comprise the Body of Knowledge include the abilities to:

- \* Apply knowledge of math, science and engineering;
- \* Design and conduct experiments as well as to analyze and interpret data;
- \* Design a system, component or process to meet desired needs;
- \* Function on multidisciplinary teams;
- \* Identify, formulate and solve engineering problems;
- \* Understand of professional and ethical responsibility;
- \* Communicate effectively;
- \* Understand the impact of engineering solutions in a global and societal context;
- \* Recognize the need for and engage in lifelong learning;
- \* Know contemporary issues;
- \* Use techniques, skills and modern engineering tools necessary for engineering practice;
- \* Apply knowledge in a specialized area related to civil engineering;
- \* Understand the elements of project, construction and asset management;
- \* Understand business, public policy and administration fundamentals; and
- \* Understand the role of a leader and leadership principles and attitudes.

Founded in 1852, ASCE represents more than 133,000 civil engineers worldwide and is America's oldest national engineering society. ASCE celebrated its 150th anniversary in 2002.

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# Don't Sabotage Your Job Search with False Assumptions

Deborah Walker, CCMC

Resume Writer ~ Career Coach

Most job seekers understand that the job market has changed radically over the last few years. Sadly, however, many still hold to job-search assumptions that do not apply to our current market conditions. If you believe any of the following five statements, you could be dragging your job search out longer than necessary. Cut your job search time by knowing the truth about the job market and learning how to combat these assumptions.

## 1. 1. "My last job search was a snap. I'm sure this time won't be any different."

Chances are, your last job search was in the mid to late 1990's when the job market favored job seekers. Even up to 2001, jobseekers (and even employers) lived under a rosy glow of unrealistic optimism. In the last few years, however, most job seekers have noticed a drastic drop in the market demand for their career skills. Persons who were once courted by recruiters and headhunters from top firms wonder why they are no longer receiving calls with enticing opportunities. For many job seekers, frustration and lack of confidence have replaced optimism.

**Action:** The job seeker of 2004 will avoid discouragement by developing a strategic action plan that involves a high degree of proactive and systematic effort.

## 2. 2. "Employers and recruiters take the time to read entire resumes."

This is couldn't be farther from the truth.

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The reality is if the best information isn't in the top four to five inches of your resume, it's doubtful anyone will notice. Try this out for yourself. Open up your current resume on your computer. Do you see the entire first page? Probably not. Most likely when your resume is opened, the reader will see the top four to five inches. You must sell the reader in those first few inches or he/she is not going to bother scrolling down to read more. With the volume of resumes that employers and recruiters receive, who has the time to hunt out the good material on a resume?

**Action:** If your current resume isn't making best use of the top four to five inches, consider using a hybrid format that will allow you to place your best assets up on top where you'll be noticed and called.

## 3. 3. "I don't want to limit my potential job opportunities, so I'll write one resume to apply for all kinds of jobs."

I learned early in my recruiting days that employers turn down perfectly qualified candidates because the resume's focus is too general. A one-size-fits-all resume gives the impression that the job seeker is uncertain of his career goal. An employer once told me that if a candidate is interested in two completely different positions, he must not be very good at either.

**Action:** The most effective resumes leave no doubt as to the job seeker's career objective. If you have more than one career objective, you need more than one resume.

## 4. 4. "I'm not going to bother with cover letters. No one really reads them anyway."

The truth is the quality of your cover letter often will determine whether your resume gets read at all. The worst offense, however, is to send a cover letter that sounds as "cookie-cutter" as junk mail.

Your cover letters will create a stronger first impression if you remember the buying motives of each of these major categories of recipients:

· · Executive decision makers are most interested in your ability to help them achieve their corporate bottom-line objectives.

· · HR screeners look for the best qualifications match.

· · Third-party recruiters need strong selling points to help present you to their corporate clients.

**Action:** If you keep in mind the buying motives of your cover letter recipient, you'll win their attention more often than not.

**for more on this subject, go to [www.AlphaAdvantage.com](http://www.AlphaAdvantage.com)**

Deborah Walker, CCMC

Resume Writer ~ Career Coach

For more in-depth information on resumes, job-search strategy and interview skills, check out the article archive at my website: [www.AlphaAdvantage.com](http://www.AlphaAdvantage.com)

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## Section Calendar

**Monday March 1** Board Meeting,  
6:00pm, Engine House #9, Tacoma

**Wednesday March 10**  
**SAME Joint Meeting**, Salishan Project,  
La Quinta Inn, Tacoma  
**Lunch Meeting** 11:30am-1:00pm

**April 20**  
Honors and Awards Banquet, Saint  
Martin's College, Lacey  
Dinner Meeting 6-8pm

### \*DATE/TIMES/LOCATIONS ARE TO BE VERIFIED

Section Meetings are open and held once a month, September through May. Meetings are generally held on the second Tuesday of the month. Locations alternate between Tacoma and Lacey, and times vary between lunch and dinner meetings.

Local Board Meetings are open and generally held the first Monday of the month at 5:30pm. Locations vary. Please check the WEB site, this calendar, or contact the president for confirmation.

<http://sections.asce.org/tacoly/tacoly.htm>

## TRANSPPEED Courses

The Winter/Spring TRANSPPEED Schedule Below is a list of the upcoming courses. Please view our website at <http://www.engr.washington.edu/epp/Transpeed/index.html> for specific course descriptions and dates. Click on the specific course link to view the course outline.

I look forward to seeing you at a TRANSPPEED course soon. If you have any questions please feel free to contact me anytime.

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### Transportation and Construction:

- Basic Highway Capacity Analysis for Engineers and Planners
- Roadway Safety: Analysis, Evaluation and Programming
- Storm Water Engineering for Transportation Professionals
- Traffic Engineering Operations
- Legal Liability for Transportation Professionals
- Traffic Signal Timing and Operations
- Techniques for Pavement Rehabilitation
- Manual on Uniform Traffic Control Devices
- Developing Contract Working Days
- Work Zone Traffic Control Plan Design
- Traffic Calming: Techniques and Management
- Traffic Signal Design
- Urban Street Design
- Fundamentals of Traffic Engineering

### Management/Organizational Success:

- Technical Communication for Engineers and Planners
- Managing Scope, Schedule and Budget
- Managing Consultants
- Geotechnical/Structural
- Concrete Bridge Design

## 2004 Winter/Spring Professional Development Short Courses

For a complete description of the course and registration information visit our website or call us at: Engineering Professional Programs, University of Washington, phone: **206.543.5539** (fax) **206-543-2352** or (toll free) **1.866.791.1275**

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### Fish Passage Considerations in the Design and Retrofit of Culverts

Mar. 9-10, 2004 \* \$495 on or before Feb. 24, \$530 thereafter  
[www.engr.washington.edu/epp/cee/drc.html](http://www.engr.washington.edu/epp/cee/drc.html)

### Achieving Real Success as a Project Manager

Mar. 23-24, 2004 \* \$475 on or before Mar. 9, \$510 thereafter  
[www.engr.washington.edu/epp/cee/asa.html](http://www.engr.washington.edu/epp/cee/asa.html)

### Construction Site Erosion and Pollution Control

Apr. 13-14, 2004 \* \$475 on or before Mar. 30, \$510 thereafter  
[www.engr.washington.edu/epp/cee/cec.html](http://www.engr.washington.edu/epp/cee/cec.html)

### NEW! Project Leadership

Workshop --  
May 12-13, 2004 \* \$655 on or before Apr. 28, \$685 thereafter  
[www.engr.washington.edu/epp/cee/plw.html](http://www.engr.washington.edu/epp/cee/plw.html)

### Geology and Geomorphology of Stream Channels

May 18-19, 2004 \* \$495 on or before May 4, \$530 thereafter  
[www.engr.washington.edu/epp/cee/ggs.html](http://www.engr.washington.edu/epp/cee/ggs.html)



## 2003 - 2004 Board

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### Younger Member Chair

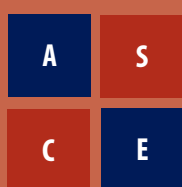
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## Engineers Make The Difference They Provide the Quality of Life!

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

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 to be included in the next publication.

*For address changes/corrections, notify the Editor or the WEBmaster.*

### We're on the web

<http://sections.asce.org/tacoly/tacoly.htm>  
and visit [asce.org](http://asce.org) for national news



### WEBmaster

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