2007 Officers

President
Mike Harney
Shannon & Wilson, Inc.

President Elect
Jeff Fowler, P.E.
City of Seattle

Treasurer
Dave Pischer, P.E.
Landau Associates, Inc.

Secretary
Sean Caraway, P.E.
Cornerstone Geotechnical, Inc.

Membership Chair
Alan Macnab, P. Eng.
Condon-Johnson & Associates

Education Chair
Laureen McKenna, P.E.
Shannon & Wilson, Inc.

Public Relations Chair
Eric Heller, P.E., L.G.
GeoEngineers
From the President

Welcome back to our annual publication of the Groundhog! In this issue we bring you news from the local geotechnical community as well as information on the ASCE Seattle Section Geotechnical Group, including our upcoming dinner meetings and the April 21, 2007 Spring Seminar entitled “Robert D. Holtz Honorary Technical Symposium”.

I would like to begin by thanking this year’s outstanding officer team, which has continued our tradition of excellence, and improved many of our programs. Jeff Fowler (City of Seattle), our President-Elect, is coordinating this year’s Spring Seminar. Sean Caraway (Cornerstone Geotechnical), our Secretary, put this publication together and keeps the officers on-track by developing meeting agendas and minutes. Dave Pischer (Landau Associates) stepped forward as the Group’s Treasurer. Alan Macnab (Condon-Johnson & Associates), our Membership Chair, has overseen the growth of our Group to almost 600 members. Laureen McKenna (Shannon & Wilson), our Education Chair, continues our strong educational program, with multiple field trips, short courses and dinner meetings. Eric Heller (GeoEngineers), our Public Relations Chair, has helped make our Group and profession more visible. Mark Rohrbach (LACHEL FELICE), our Immediate Past-President, has been working diligently with several other senior members of our community to recommend measures to focus our future efforts and finances.

Our Group continues to be guided by our mission and vision statements established three years ago.

Mission
“The ASCE Seattle Section Geotechnical Group’s mission is to advance geotechnical practice in the Puget Sound Region by providing leadership on public issues, sharing professional experience, and promoting education.”

Vision
“The ASCE Seattle Section Geotechnical Group will be the recognized leader of geotechnical practice throughout the Puget Sound Region.”

This year, we have worked toward these goals in several ways. First, the Group has been actively involved in the drafting and review of City of Seattle Department of Planning and Development’s (DPD) Geotechnical Report Guidelines. After being approached by DPD about their plans to author such guidelines, the Geotechnical Group established a committee, chaired by Bo McFadden (GeoEngineers), to ensure that this document would reflect the current state of practice of geotechnical engineering in Seattle. The guidelines are now in their final draft, and have been released to the Membership for final review.

Second, The Group remains dedicated to promoting the continuing education of our members and our officers. Our annual events, including monthly dinner meetings, and our Spring Seminar, remain as strong as ever. Additionally, several new opportunities were added to our program, including an extremely popular site visit to the Beacon Hill Tunnel, and a two-day Short Course on “Applied Rock Mechanics” which saw 72 attendees on one of the worst weather days in recent Seattle history. Congratulations and thanks are due to those who made these events successful, including Sarah West (Golder Associates), Kami Deputy (Kleinfelder) and Michel Bouchard (Ch2M-Hill). The Group has also established an initiative to train our officers. Last year, I attended the ASCE Zone IV Leadership Conference in Salt Lake City. This year, Jeff Fowler attended the ASCE Continuing Education course “Leadership for the Engineer”.


Third, the Seattle Geotechnical Group co-sponsored the national workshop on “Trends Affecting the Geo-Community: What Does the Future Hold?” The other sponsors were all national and international organizations, including ASCE, the Geo-Institute, ADSC, AEG, USUCGER and others. Your Seattle Geotechnical Group was the sole regionally-oriented sponsor, and as such we were allowed to send a delegate to represent our views on a wide range of subjects. A summary of the GeoTrends workshop was recently printed in the latest issue of “ASCE News”.

Other new initiatives include the establishment of an annual altruistic donation. This year we pledged a $5000 matching sum to the University of Washington chapter of Engineers-Without-Borders. We expect to update you in next year’s newsletter on the use of that donation. We have also recently subsidized the attendance of public officials at our dinner meetings by offering them a reduced rate. That measure seems to be successful, and will likely continue. We have also initiated an Awards program. Two awards have been established: the Distinguished Service Award, recognizing service to our Group and profession, and the Professional Achievement Award, which recognizes technical and professional excellence by one of our members. The awards will be made at the Spring Seminar when meritorious individuals have been identified. This year, we will recognize our “founding fathers”—those who established the Geotechnical Group: Frank Pita, Roger Lowe, Bill Shannon, Jack Tuttle, Gene McMasters, Neil Twelker, and Joe Lamont.

Financially our group remains in a strong position. We continue to make the bulk of our funds on the Spring Seminar, although we also make a small profit on the Groundhog and our short courses. Unfortunately, we have historically been posting losses at all of our monthly dinner meetings despite our efforts to recover dinner meeting fees from no-shows. To limit our dinner meeting losses while continuing to bring in top speakers at quality venues, we raised the dinner meeting rates to $35 with advance RSVP. We are continuing our recent tradition of identifying company sponsors for students and still allowing free walk-ins for the talk only.

Our group’s membership (i.e., our email list) stands at 570, a significant increase over last year. Our group has much to offer our members, and I encourage each of you to be active participants by attending our programs or becoming an officer. Contact any officer if you would like to be more involved in our group or if you need to be added to our email list.

Thank you for your continued support of our group! I look forward to seeing you soon at one of our monthly dinner meetings and the 2007 Spring Seminar.

Mike Harney
Shannon & Wilson, Inc.
The Geotechnical Group of the ASCE Seattle Section is pleased to announce its 24th Annual Spring Seminar. A one-day symposium will be held to honor Dr. Robert D. Holtz, on Saturday April 21, 2007. Well-known for his research, educational, and professional achievements, Bob Holtz is also an esteemed member of our engineering community. The symposium will feature some of Bob’s mentors, colleagues and former students speaking on a range of topics. The seminar flyer with detailed information is on the following pages.

This year we had help from several people spread throughout our geotechnical engineering community. Tony Rice and Jewell Dozier with Golder Associates helped design the seminar flyer and spread the word through other publications and other professional organizations. Claire Gibson with Shannon & Wilson and Grace Weaver with LACHEL FELICE are in charge of getting all of the attendees registered for the event. Wookuen Shin, a graduate student at the UW and Eric Lim with AESI have coordinated student volunteers from the surrounding universities and coordinated our efforts with the HUB. Jon Brown with Landau Associates stepped up as the speaker liaison to make sure all of our speakers have everything they need. Matt Gibson with Hart Crowser is in charge of producing the proceedings for the event and Ben Upsall, also with Hart Crowser is responsible for coordinating the banquet the Friday night before. Ian Lavielle with Kleinfelder and a graduate student at the UW is organizing all of our sponsors and exhibitors for the seminar. And finally, Mike Lach with CDM has stepped up to coordinate all of the audio and visual needs for the banquet and seminar.

Please take a moment to thank these folks next time you see them. This event could not happen without all of their incredible efforts.
24th Annual Spring Seminar

Dr. Robert D. Holtz
Honorary Technical Symposium

Saturday, April 21, 2007

Sponsored by:
ASCE Seattle Section Geotechnical Group and University of Washington
Department of Civil Engineering

www.seattlegeotech.org

Registration and Site Information

1. Registration includes morning and afternoon refreshments, a box lunch, and a bound seminar program containing a DVD with the seminar proceedings.

2. Advance registration is advised. Registration will be on a first-come/first-served basis. Day-of-seminar registration will be accepted only if space is available.

3. Registration forms must be postmarked or received electronically by March 30, 2007, to receive the reduced fee. For cancellations received in writing and postmarked, or received by e-mail, by April 6, 2007, the registration fee less $25 will be refunded. Refunds will not be provided after that date. If you are unable to attend, you may send another person in your place.

4. The seminar will be held in the Husky Union Building (HUB) Auditorium on the University of Washington (UW) campus in Seattle, Washington. Parking and maps are available on the campus - check in at the gate upon arrival. A map of the campus can also be found online at: www.washington.edu/home/maps/

5. An honorary banquet will be held for Dr. Holtz Friday evening April 20, 2007 at the UW Club but seating is limited so register early. Social Hour: 5:00 pm, Dinner: 6:00 pm, Presentation: 8:00 pm.

6. For additional information, please contact: Jeff Fowler at 206-233-2450 or e-mail: jeff.fowler@seattle.gov
The Geotechnical Group of the ASCE Seattle Section is pleased to announce its 24th Annual Spring Seminar. A one-day technical symposium will be held to honor Dr. Robert D. Holtz, on Saturday April 21, 2007. Well-known for his research, educational, and professional achievements, Bob Holtz is also an esteemed member of our engineering community. The symposium will feature some of Bob’s mentors, colleagues and former students speaking on a range of topics. The seminar will be of interest to current students, recent graduates, and experienced engineering and construction professionals.

Program and Speakers

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 am - 8:15 am</td>
<td>Registration</td>
</tr>
<tr>
<td>8:15 am - 8:30 am</td>
<td>Welcome and Introductions</td>
</tr>
<tr>
<td>8:30 am - 9:15 am</td>
<td>What I Cannot Tell You about Geosynthetics in 45 minutes</td>
</tr>
<tr>
<td></td>
<td>Barry Christopher, Ph.D., P.E., Chistopher Consultants</td>
</tr>
<tr>
<td>9:15 am - 10:00 am</td>
<td>Engineering Behavior of Tire Derived Aggregate</td>
</tr>
<tr>
<td></td>
<td>Dana Humphrey, Ph.D., Professor of Civil Engineering, University of Maine</td>
</tr>
<tr>
<td>10:00 am - 10:30 am</td>
<td>Morning Break</td>
</tr>
<tr>
<td>10:30 am - 11:15 am</td>
<td>Mechanics of Stability of Deep Slopes in Soil and Rock</td>
</tr>
<tr>
<td></td>
<td>Milton Harr, Ph.D., Professor Emeritus, Purdue University</td>
</tr>
<tr>
<td>11:15 am - 12:00 pm</td>
<td>Correlations among, and Cyclic Resistance of a Silty Sand According to Laboratory and Field Measurements</td>
</tr>
<tr>
<td></td>
<td>An-Bin Huang, Ph.D, Professor, National Chiao Tung University</td>
</tr>
<tr>
<td>12:00 pm - 1:00 pm</td>
<td>Lunch</td>
</tr>
<tr>
<td>1:00 pm - 1:30 pm</td>
<td>Message from our President and Distinguished Service Awards</td>
</tr>
<tr>
<td>1:30 pm - 2:15 pm</td>
<td>Performance-Based Earthquake Engineering: Implications for Geotechnical Practice</td>
</tr>
<tr>
<td></td>
<td>Steve Kramer, Ph.D, Professor of Civil Engineering, University of Washington</td>
</tr>
<tr>
<td>2:15 pm - 3:00 pm</td>
<td>Design of Foundations for the World’s Tallest Buildings</td>
</tr>
<tr>
<td></td>
<td>Clyde Baker, P.E., STS Consultants, Ltd.</td>
</tr>
<tr>
<td>3:00 pm - 3:30 pm</td>
<td>Afternoon Break</td>
</tr>
<tr>
<td>3:30 pm - 4:20 pm</td>
<td>Safe Guarding Venice Lagoon Against High Tide</td>
</tr>
<tr>
<td></td>
<td>Michele Jamiolekowski, Ph.D., Polytechnic University of Turin</td>
</tr>
<tr>
<td>4:20 pm - 5:20 pm</td>
<td>Terzaghi Lecture - Dredged Materials: Friend or Foe</td>
</tr>
<tr>
<td></td>
<td>Ray Krizek, Ph.D., Professor of Civil Engineering, Northwestern University</td>
</tr>
<tr>
<td>5:20 pm - 5:30 pm</td>
<td>Closure and Raffle</td>
</tr>
<tr>
<td>5:30 pm - 6:30 pm</td>
<td>Social - In the Exhibit Room</td>
</tr>
</tbody>
</table>

Refreshments will be served. Open to all participants. Opportunity to ask questions and interact with speakers, exhibitors, and sponsors.

Exhibitors

Manufacturers, suppliers, contractors, and industry professionals will have exhibits and displays throughout the day.
Hayward Baker, Inc.

Hayward Baker continues to operate out of its Tukwila office to provide the Northwest with specialty geotechnical contracting feasibility, budgets and installation of ground for ground improvement work. This work includes both consultant design/bid/build and HBI design/build. Special emphasis continues to be for projects requiring soft ground treatment, liquefaction mitigation, underpinning, groundwater control, excavation support and slope stability. Mark Koelling, Rick Hanke and Andy Anderson operate as project managers for all ground improvement work.

HBI is appreciative of its role in the local geotechnical community and will continue to strive to provide quality contracting and business relationships.

JACOBS ASSOCIATES

Jacobs Associates, a consulting engineering firm that specializes in tunnels and underground construction, continues to provide the northwest with design, construction management (CM), and claims services from our Seattle office. This coming year we celebrate our 50th anniversary as a company and our fourth year in Seattle.

Our Design Department, in joint venture with MWH, continued work on King County’s Brightwater Conveyance System. This year final design was completed, and bids received and opened, for the remaining two tunnel contracts, 3.8-mile Central Tunnel and 4-mile West Tunnel.

Major wins of 2006, spearheaded from our northwest office, include: final design for Sound Transit’s University Link section of light rail, Lower Meramec River Waste Water Treatment Plant in St Louis, MO and CAB/ECI Relief Interceptor in St Paul, MN. In addition, we provided services to the WSDOT Expert Review Panel on the Alaskan Way Viaduct and SR520 Floating Bridget replacement projects.

We have also been successful in securing more work in British Columbia, specifically the Port Mann Water Supply Tunnel – Fraser River Crossing. Having completed the Project Definition Report, we are now preparing to begin the Detailed Design stage. International work also included completing the Detailed Design on both Stage 1 and 2 of the Northern Sewerage Project in Melbourne, Australia.

Due to the continuing and expanding work-load our Design Department (Bill Edgerton, Dan Adams, Gregg Davidson, Mark Havekost, Isabelle Lamb, John Giaudrone, Jeremy Johnson, Andrew McGlenn, and Ben Piermattei) duly has increased. This year we welcomed Rick Smith, Peter Raleigh and Mark Trim.

Our Claims Department, headed by Carl LaFraugh, continued to expand both in terms of staff and work-load. The department now includes KC Carmichael, Paul Dutton, Jimmy Zheng, Kyle Braget, and Monica Stary. The provenance of claims projects this year ranged from Washington to Alaska and California, to as far afield as Guam.

Jacobs Associates Portland office continued to lead our design effort for the Portsmouth Force Main for the City of Portland. Mark Havekost serves as project and office contact in Portland and is assisted by the Portland office design team of Mike Kowalski and Sue Bednarz. Our Construction Management Department (Greg Colzani, Craig Kolell, and Ted Depooter) has engaged itself fully in providing specialty supplemental services to the City of Portland on the West and East Side Willamette River Central Sewer Overflow project.
Jacobs Associates provided specialty supplemental CM and design services to the City of Portland, Bureau of Environmental Services.

811 1st Avenue, Suite 407
Seattle, WA 98104
206.682.0081
206.682.0092 (f)

101 SW Main Street, Suite 320
Portland, OR 97204
503.227.1800
503.227.1821 (f)

www.jacobssf.com
info@jacobssf.com

As a 100% employee-owned firm, we realize that our people are one of our most valuable assets, and that is why employee development is one of our core values. Terracon supports participation in a variety of continuing education activities including, professional licensure, seminars, professional memberships, and tuition reimbursement.

We offer careers in:
- Geotechnical Engineering
- Environmental Engineering
- Construction Materials Engineering
- Environmental Science
- Facilities Engineering
- Geology

Terracon is an Equal Opportunity Employer

Lynnwood, WA
18905 33rd Ave. West, Suite 117,
Lynnwood, WA 98036
425.771.3304

Tacoma, WA
2501 East 10th Street, Suite 200,
Tacoma, WA 98421
253.573.9939

Seattle, WA
14405 SE 36th Street, Suite 210,
Bellevue, WA 98006
425.746.1889

800.593.7777 • www.terracon.com
Zipper Zeman Associates, Inc./Terracon

2006 was an exciting year for ZZA, following our successful merger with Terracon in 2005. We upgraded IT systems, integrated accounting and project management systems, and became familiar with the resources available to us within the company. John Zipper was put in charge of WA, OR and ID operations. We added engineers and geologists to our staff to handle increased workload in the region, and opened an office in Portland. Kris Hauck was appointed Portland office manager during early summer. The Portland office is thriving, with a staff of four and plans to double during 2007.

The Lynnwood office is busy with a good mix of public and private sector work, including challenging projects involving ground improvement, deep foundations, seismic and critical areas issues. Michael Bullock transferred to the Terracon office in Billings. In return, we transferred several environmental geologists from other Terracon offices into Lynnwood. We also added personnel in our AASHTO-certified lab and our geotechnical department. Sean Donnan was appointed Environmental department manager, with Jon Einarsen as assistant. Tom Jones was appointed Geotechnical department manager. Jim Thompson is working on the Port of Anchorage upgrade, and an assortment of local projects. Al Zeman continues to provide consultation services for Nordstrom nationwide.

Dave Baska and Jim Brisbine in our Bellevue office continued to manage a large volume of work, with support from other offices. Projects included Northgate and Tacoma Mall expansions, landslide stabilization, and several seismic and roadway projects. Matt Behesti, working in Terracon’s National Account Program, also spends time in Bellevue when not on the road. Jeremy Jeffers joined Terracon and will spend part of his time in Washington managing projects.

ZZA’s Tacoma office relocated to a larger facility, with space for a soils lab and more staff. Tim Roberts manages the office and has a heavy workload. The office plans to add several engineers and geologists during early 2007.

2006 provided a smooth transition into Terracon for the ZZA staff. Terracon is 100% employee owned, and a number of ZZA staff became shareholders in 2006. Several local staff participated in projects, regular web-based training and professional development sessions with other offices. The ability to bring qualified people in from other offices allowed us to handle the increasing workload, and was an added benefit of joining forces with Terracon. We are looking for engineers and geologists, and expect that market conditions in the region will allow continued growth.

**GEOTECHNICAL ENGINEERS / GEOLOGISTS / TECHNICIANS:** ZZA (Zipper Zeman Associates) has immediate openings in all of our offices for entry- to project-level geotechnical engineers and engineering geologists, and experienced geotechnical technicians. Offices in Lynnwood, Bellevue, Tacoma, and Portland. ZZA is a Terracon company, and offers excellent salary and benefits, 100% employee ownership, and all of the tools you need for career growth and professional development. [www.terracon.com](http://www.terracon.com) Respond to: Human Resources, ZZA/Terracon, PO Box 2400, Lynnwood, WA 98036, or fax: 425-771-3549.
LACHEL FELICE & Associates, Inc. (LF&A) is pleased to announce its merger with Schnabel Engineering, Inc. (Schnabel). Schnabel is an ENR Top 10 geotechnical engineering firm that employs 320 in 14 offices from Philadelphia to Atlanta. LF&A has a staff of 40 with nine locations in Colorado, Georgia, Nevada, New Jersey, Ohio, Pennsylvania, Texas, Virginia, and Washington.

LF&A is an underground engineering and geotechnical design firm specializing in geo-structural design for large infrastructure projects including tunnels, bridges, retaining structures, and related facilities. Schnabel specializes in geotechnical engineering, construction monitoring, dam engineering, geoscience services, non-destructive testing, and environmental services. LF&A adds strength to several of Schnabel’s existing services, while also adding new services and capabilities. The merging of Schnabel and LF&A provides an exceptional opportunity for both firms to expand and enhance the services they both provide throughout the country and globally.

As a result of the merger LF&A now maintains state-of-the-art Pile Dynamics, Inc. Model PAK Pile Driving Analyzer (PDA) and CAPWAP analysis capabilities to better serve our clients’ needs in the area of deep foundations. Our PDA-CAPWAP services complement our more established Cross-Hole Sonic Logging (CSL) integrity testing services enabling LF&A to provide a complete solution package for the design and construction of deep foundations. Deep Foundation services include ASTM Reporting, Defect Analysis and Impact, Foundation Design/Inspection, Construction Engineering, Mitigation Planning and Design, CSL testing, PDA testing, CAPWAP analysis, Wave Equation (WEAP) analysis, and a host of other technical applications. Most recently, LF&A is providing shoring design, PDA and CAPWAP analysis, and CSL testing for the Sound Transit Central Link Light Rail C755 project. We are also providing similar services on a score of projects throughout the Pacific Northwest including the Hood Canal Bridge Replacement and the Swift Canal No. 2.

LF&A’s core competencies include deep foundation design, testing, and analysis; numerical modeling; construction engineering; soil structure interaction; and other advanced structural, geotechnical, and geo-structural designs. LF&A provides detailed design recommendations, complete plans and specifications, construction drawings, and resident engineering services.

LF&A’s clients include major contractors, state and local governments, the federal government, and a variety of commercial enterprises. Their multi-disciplinary staff includes geotechnical, structural, mining, electrical, and tunnel engineers, as well as geologists and grouting and construction specialists.

LF&A had a very productive 2006. Looking forward 2007 promises to be even busier as we continue to serve our clients, pursue new work, and experience steady growth. Please visit www.lachel.com for a firm overview and current employment opportunities.
Hart Crowser

Hart Crowser continues to be involved with a number of high profile projects throughout the Puget Sound area. A sampling of some of Hart Crowser’s geotechnical design and construction projects from 2006 include:

- Third Runway West MSE Wall Construction Instrumentation (135-foot-tall wall, the tallest MSE wall in the Western Hemisphere)
- SAM Sculpture Park
- Puget Sound Naval Shipyard - Carrier Pier
- Amgen Helix Campus Development
- Port of Seattle - Terminal 18 Crane Rail Upgrade and Deepening
- Port of Seattle - Terminal 91 Cruise Ship Building
- Port of Tacoma - Terminals 3 and 4 Upgrade
- Children’s Hospital Expansion
- Stadium Silver Cloud Inn
- 505 First Avenue Development for Starbucks
- 2201 9th Avenue Mixed Use Project for Vulcan
- Bellevue Place/Hyatt Expansion
- Bellevue’s Performing Arts Center (PACE)
- Closure of Numerous Abandoned Coal Mine Features

A number of our senior geotechnical engineers continue to play key roles in the corporate leadership of the company. Mike Bailey is the Chairman of the Board, Jeff Wagner is the operations manager of Hart Crowser’s Seattle office, and Garry Horvitz continues his involvement as a member of the Board of Directors. All three are principals and also continue their business development and project management duties. Barry Chen, another principal, leads Hart Crowser’s efforts in the transportation market, including the I-405 widening project, and is also heavily involved in the development/building market.

Doug Lindquist spent 2006 managing a number of port and high-rise development projects. John Bingham manages the Amgen campus development and has also spent a significant amount of time reviewing shoring plans for the Seattle Department of Transportation. In addition to a variety of traditional geotechnical projects, Matt Gibson has been Hart Crowser’s lead design engineer for a number of soil nail projects. Armin Stuedlein continues his PhD research at the University of Washington while maintaining a substantial workload at Hart Crowser. Congratulations to Alison Armstrong and Ben Upsall for becoming professional engineers this year. Finally, we are very proud to welcome Mike Swenson, who joined us from the University of Wisconsin and Sarah Upsall from the University of Washington as Senior Staff Engineers. Both are already making strong contributions to our success.

Hart Crowser is very healthy in the geotechnical and environmental areas, having achieved double-digit growth in 2006. We project similar growth for 2007.
At Hart Crowser, we provide innovative and creative solutions to serve our clients. We currently have opportunities for Geotechnical Engineers (MS preferred) to join our Seattle and Portland offices.

**Senior Geotechnical Engineer** with an OR and/or WA P.E., and 10+ years experience providing geotechnical design and construction recommendations for a variety of development, industry and port/harbor clients within the Pacific Northwest. As a Senior Geotechnical Engineer this individual will be responsible for business development, project management and mentoring of junior staff.

**Project level Geotechnical Engineer** with 3–7 years of geotechnical consulting experience. Candidate should be an OR or WA PE, or be PE eligible. Experience with environmental projects is highly desirable but not critical.

**Senior Staff level Geotechnical Engineer** to join our Seattle team with 0-3 years experience in performing field explorations, sample collection, and interpretation of subsurface data, engineering analyses, and construction monitoring. Experience and/or interest in environmental projects are a plus. This position will involve some fieldwork.

Each of these positions requires strong writing, communication and interpersonal skills, and the ability to clearly convey technical information to what may/may not be a technical audience.

As an employee owned company, we offer exciting and challenging opportunities and a comprehensive compensation package, which includes participation for all staff members in the Employee Stock Ownership Program (ESOP). To learn about other employment opportunities with Hart Crowser in the areas of Environmental Engineering, Water Resources, Hydrogeology, and Wetlands Ecology, please visit our website: www.hartcrowser.com. Interested candidates are encouraged to forward their confidential resume to Doug Lindquist (doug.lindquist@hartcrowser.com) or Jeff Wagner (jeff.wagner@hartcrowser.com).

**HART CROWSER, INC.**

An Affirmative Action/Equal Opportunity Employer
Condon Johnson & Associates, Inc.

Condon- Johnson & Associate Inc is a heavy civil engineering contractor specializing in drilled applications of ground modification, anchored earth retention and deep foundations.

During the past year we have worked on a number of interesting projects. These include completion of the shafts and portals for Beacon Hill Tunnel, Seattle, WA., completion of a $ 7.0 M salmon stream rehabilitation and bridge placement in Des Moines, WA and several large shoring projects in Portland for condominiums. In addition, we completed three jet grouting projects in Vancouver, BC for anchored earth retention applications. Also completed in 2006 was a large shoring project at the Brightwater Treatment plant site in Woodinville, WA and stone columns and compaction grouting at Sauvie Island Bridge, Portland, OR.

We are currently involved in finishing Drilled Shaft works in Everett, WA on a Design Build contract for Hwy 5 widening and completing a $ 6.0 M Secant Pile Wall in Blaine, WA for the truck crossing.

We are looking forward to a very challenging earth retention and ground water cutoff project at 505 First Avenue in downtown Seattle, WA in 2007. In addition we will be Soil Nailing a shored excavation at Skyline and First Ave in Seattle, WA. We also will be installing Drilled Shafts and Stone Columns at Spencer Creek, Depot Bay, OR.

Condon- Johnson has four offices serving the West Coast. These are San Diego, Los Angeles, Oakland (head office) and Seattle. We routinely perform work in Washington, Oregon, California, Nevada, Arizona, Utah, Idaho, Montana, and Alaska. We are routinely ranked in the top 10 nationally for the excavation foundation category in ENR’s top 600 contractors.

Condon- Johnson employees were involved in presenting educations sessions at three universities in the Northwest this year and a number of continuing education sessions by ASCE as well as WSDOT. We also presented at several national Seminars on Deep Foundations, Ground Modification and Anchored Earth Retention.

For further info on Condon-Johnson and Associates Inc please see our website at www.condon-johnson.com

Cornerstone Geotechnical, Inc.

Cornerstone Geotechnical, Inc. has continued to grow during 2006 and the early stage of 2007 indicates that this trend will continue. We have seen increased diversity in our client base with a trend toward mixed use and commercial projects along with residential plats and multi-family structures. Sean Caraway, PE has joined Cornerstone as a senior engineer during the past year. Sean and Thor Christensen, PE, senior engineer are working with principals, Rick Powell, PE and Chuck Couvrette, PE to continue developing clients and providing timely geotechnical services. Jeff Wale, senior staff engineer and Mark Schumacher, geologist continue to assist as project managers.
GeoEngineers

GeoEngineers had a record year in 2006. Company growth, large projects, and great hires have all contributed to our success. The past year brought two office openings in Sacramento, California and Houston, Texas. GeoEngineers also acquired High Desert Geo-technologies, which specializes in custom GIS solutions for property, asset, and land management. This acquisition has created another office in Bend, Oregon and brings our total staff firm-wide to 270. GeoEngineers is working on exciting and innovative projects throughout the Pacific Northwest and beyond. We are providing geotechnical services for Seattle Biodiesel, which is creating the largest bio-diesel facility in the United States at the Port of Grays Harbor. We are the geotechnical engineer for the Olive 8 high-rise building in downtown Seattle, and are excited to be providing services for the LeMay Car Museum in Tacoma. When complete, the museum will showcase cars from Harold LeMay’s car collection - the largest in the United States. Outside of the Pacific Northwest, our projects reach the far corners of the world including ongoing projects in Vietnam, Panama, Brazil and West Africa.

To further expand our reach, we are proud to announce GeoEngineers Principal Dave Cook, Seattle, was recently appointed President of the Engineers Without Borders (EWB) Puget Sound chapter. The EWB-Puget Sound recently completed several important projects, including: Sri Lanka tsunami relief, Ethiopia community water improvements, and an irrigation project in Susudel, Ecuador. GeoEngineers is pleased to announce the following geotechnical staff promotions: Bo McFadden, Principal (Seattle); Eric Heller, Project Manager 1 (Tacoma); Lindsay Flanges, Staff 2 (Redmond); S.C. Shin, Staff 2 (Seattle); Craig Royer, Staff 3 (Tacoma); Tim Bailey, Project Manager 1 (Redmond); King Chin, Senior 1 Project Manager (Redmond); Kimball Olsen, Project Manager 2 (Redmond); and Matt Smith, Associate (Redmond).

GeoEngineers strives to be a good neighbor in our communities, and a good citizen of the world. We foster an environment of giving and sharing our talents with others. GeoEngineers is proud to support Engineers Without Borders. Building communities and improving the quality of life worldwide. learn more at ewb-pugetsound.org

Want to join our team? Apply at www.geoengineers.com.
GeoEngineers expanded its geotechnical staff in 2006 with the following additions: Lyle Stone, Staff 2 (Tacoma); Jian Hu, Staff 1 (Redmond); Morgan McArthur, Staff 1 (Tacoma); Asha Sreekrishnavilasam, Project Manager 1 (Redmond); Chris Kokesh, Staff 1 (Redmond); Dan Ciani, Staff 1 (Redmond); Sean Cool, Project Manager 2 (Bellingham); Fadzilah Saidin, Staff 2 (Seattle); Abhijit Bathe, Project Manager 1 (Redmond); Steven He, Staff 1 (Everett); David Chen, Senior 1 Project Manager (Everett); and Andy Shriver, Staff 1 (Tacoma).
URS Corporation

URS transportation work increased in 2006 with a large effort required for the first phase of the I-90 Snoqualmie Pass - East Hyak to Keechelus Dam road widening project, including several months of soil drilling, rock coring, and geologic mapping. Work on the project was guided by Cecil Urlich and new transportation specialist Markus Walbaum. Kranti Maturi, Ken Yang and Bill Kuck played key roles in the field work. A new office in Yakima was opened for the project. Marty McCabe is leading the SR410 flood damage mitigation effort in Pierce County near the north end of Mt Rainier Park. Tung Vu provided assistance to the Portland office for bridge design work associated with I-205 in Oregon. Cheryl Gussenhoven was hired to further build on the strong mining workload with projects in Alaska and Washington, where Eric Lenz and Suren Balendra have made significant contributions. Railroad Engineer Han Xiadong was hired to expand the firm’s rail transportation work, which includes a new line to the Centralia WA power plant. City of Everett water projects continued with planning of a new shaft and associated conveyance tunnel rehabilitation at Lake Chaplain, where newly hired tunneling specialist Brian Hamilton will be concentrating his efforts. Sri Rajah and Becca Loveday are directing pipeline work for the 5-line crossing of the Pilchuck River, and emergency repair evaluation of the dike along Ebey Slough. New projects included King County Airport rehabilitation, a three week around-the-clock operation involving subgrade repair and repaving of the runway. Dan Hawk and Vichai Vitsupakhorn are tending to the Westlake/Mercer cleanup project with its associated shoring, earthwork, and monitoring. The work of other geologic and geotechnical staff too numerous to cite here contributed to an excellent year.

Landau Associates

The geotechnical group has been very busy last year, working on very exciting projects. We welcomed Colin Turnbull, L.E.G., Senior Engineering Geologist. Promotions included Steve Wright, P.E., to Senior Associate; Reda Mikhail, P.E., to Senior Associate; Dana Olcott, P.E., to Project Engineer; Brian Bennetts, P.E., to Project Engineer; and Jonathan Brown to Senior Staff Engineer. Congratulations go out to Brian Bennetts, P.E., Project Engineer, for obtaining his P.E. license.

Dennis Stettler, P.E., is the program manager for our WSDOT and on-call geotechnical contract with projects such as the SR 530 landslide and a waterfront facility. He has also been managing our contract with Seattle Public Utilities (SPU). Ed Heavey, P.E., has been busy with projects for the City of Tacoma and Pierce County. He is also leading our work for SPU’s Cedar Moraine Safety Studies. Dave Pischer, P.E., continues working on a variety of waterfront projects for local ports, in addition to other diverse site redevelopment and reclamation projects in Washington and Oregon. Steve Wright, P.E., has been managing a variety of projects for the Port of Everett, Port of Port Townsend, and for developers in eastern and western Washington in addition to road improvement projects for many local municipalities. Reda Mikhail, P.E., is managing our work for a WSDOT waterfront facility and projects for the Port of Everett and Port of Port Angeles. Colin Turnbull, L.E.G., manages a variety of projects including the North Creek Interceptor Pipeline project, various residential/commercial site development projects, and recently completed the WPA Landslide Drainage Site 26 project.

Looking ahead, we continue to work on challenging projects and seek to add outstanding staff. We encourage you to contact us in our Edmonds, Tacoma, Spokane, or Portland offices and visit our website at www.landauinc.com.
PacRim Geotechnical, Inc.

PacRim Geotechnical Inc. wishes everyone a Happy New Year. 2006 was a busy year at PacRim and 2007 looks to be full of exciting changes and challenging projects. PacRim continued to provide geotechnical services on a variety of projects in Washington and Oregon. During the year we developed a close working relationship with GeoDesign, Inc. and assisted them on the Bellevue Towers project that includes the construction of two 42-story high rises in downtown Bellevue.

Projects for developers, school districts, and local municipalities kept the staff busy of over the past year. PacRim continued providing services on site development and infrastructure projects that included tunnel alignment studies, reservoir covers, educational facilities, public housing, seawalls, airports, parking structures, transportation, and commuter rail facilities.

Associate Kevin Lamb has been busy providing services for Sound Transit’s Mukilteo Commuter Rail Station, the Port of Ephrata Airport Improvements, the City of Seattle SPU Cedar River Pipeline Ginger Creek Seismic Upgrade, and several educational projects for local school districts. He continued to assist clients during construction with managing earthwork contracts and resolving conflicts. Associate Andre Mare continued to manage PacRim’s Portland office and continues to expand the office bringing in new projects that included investigations for several bridges along Interstate 5 in Oregon, and tunnel alignment studies for the East Side CSO and the Portsmouth Force Main.

Dr. Jason Qiu was promoted to Senior Geotechnical Engineer and kept busy completing investigations for several ODOT bridge projects along Interstate 5. Jason also continued to oversee the geotechnical instrumentation that PacRim installed at the west portal of Sound Transit’s Beacon Hill Tunnel that includes an automated data acquisition system for monitoring the settlement and tilt meter sensors attached to the I5 bridge columns.

We continued to keep our Project Engineers, Geologists, and Technicians busy in the field, lab and office on projects requiring geotechnical investigations and construction observation. They supported investigations for a new intake structure at the Dungeness River Fish Hatchery near Sequim, a new runway and taxiway at the Ephrata Airport, a Commuter Rail Station in Mukilteo, and many other interesting projects. They continued to use rotosonic drilling methods on the Eastside CSO and Portsmouth Sewer projects in Portland.

Principal and Owner of PacRim, Bans Chabra, has decided to retire in 2007, after providing services in the Pacific Northwest, since 1978. Bans started PacRim in 1994, after leaving Dames & Moore, and was responsible for developing PacRim into the most successful DBE geotechnical firm in the area. His retirement will bring about an exciting change for PacRim personnel.

CH2M Hill

The year 2006 was another busy year for CH2M HILL’s Geotechnical Group. In September 2006, King Sampaco took over as the new Operations Leader for the Seattle office Geotechnical & Civil Group. Mike Reimbold, who was the Group Leader for the geotechnical group in the last 5 years, is currently serving on his new role as the Geographic Operations Manager for the Northwest Region. We would also like to welcome Todd Valentine to our geotechnical team. Todd recently obtained his Master’s degree from Brigham Young University (BYU).
Design/build opportunities continue to dominate much of our workload. In early 2006, CH2M HILL, through a joint venture with Bilfinger Berger Civil, has been selected for the design-build-finance-operate of Golden Ears Bridge (GEB) Project near Vancouver, British Columbia. The main element of the GEB Project is a one-km bridge crossing of the Fraser River, approximately 30 km east of Vancouver. The project also includes 13 km of new four-lane and six-lane mainline roadway, 16 new structures with a total length of 4.7 km, 12 km of local street reconstruction, and utility relocations for five utility owners. Estimated cost is in the order of $CDN1.1 billion. The joint venture will be responsible for the project’s design and construction, expected to be completed by June 2009. Our Seattle geotechnical team, in conjunction with CH2M HILL’s bridge engineers from our Canadian and U.S. offices, is currently involved with foundation design of the mainland structures for Segment 4 (consisting of viaducts, bridges, and overpasses), located north of the main bridge. King is the Geotechnical Design Coordinator/Manager for the team, which consists of five geotechnical engineers from our Seattle office, and two others from our San Francisco Bay Area and Boise offices.

CH2M HILL geotechnical work continues on the I-5 Everett HOV Design/Build Project. Awarded to the Atkinson-CH2M HILL Joint Venture in May 2005, the $260 million project is due to be substantially complete by December 2007. At its peak, the CH2M Hill geotechnical design team consisted of seven full-time engineers plus two field personnel. The geotechnical team included Joel Theodore, Roch Player, Michel Boucheddid, Ha Pham, King Sampaco, and two others from our Southern California office.

By the end of 2006, foundations (consisting of both shallow and deep foundations) were designed and construction substantially complete for 23 new bridges and bridge widenings. Construction of the new Broadway Avenue Fly-over Bridge was begun in October of 2005 and opened to traffic in June 2006. This 8-span, 1,300 ft long steel and concrete girder structure is supported on 9 and 10 feet diameter drilled shafts. Over 120 drilled shafts, ranging in diameter from 3 feet to 10 feet, were designed and constructed under the oversight of CH2M HILL geotechnical personnel. Five additional bridge superstructures were completed by the end of 2006.

In addition, over 40 MSE walls, cast-in-place, soil-nail, geofoam, soldier pile and lagging, and gravity block retaining walls were designed by CH2M HILL geotechnical team by Fall 2006. Wall heights climb to over 40-feet and some wall lengths are over 1,800 feet long. Narrow work zones, steep slopes, and difficult site access all added challenges to the design process. Construction of retaining walls began in late 2005 and continues with over 20 walls complete by the end of 2006.

To meet the constraints of the narrow right-of-way, two geogrid reinforced soil slopes (RSS) were designed by the CH2M HILL geotechnical team as part of the project to facilitate the widening of I-5. The slopes are up to 35 feet high and 950 feet long, with up to a 1:1 slope. Construction of the first slope was complete by the end of January 2007.

With design substantially complete, the CH2M HILL geotechnical team maintains a fulltime presence during the construction phase of the project, overseeing drilled shaft installation, retaining wall and RSS construction, pavement subgrade preparation, temporary shoring and cut slope design, and general geotechnical services during construction.

Karen Dawson is heading the geotechnical portion of our work for the Tacoma/Pierce County HOV Program General Engineering Consultant (GEC) contract. The HOV system for Tacoma/Pierce County is part of an ongoing effort by WSDOT to enhance the people-carrying capacity of urban freeways throughout the state. The program will be built through a series of 22 stages including 35 lane miles on Interstate 5, 27 lane miles on SR 16 and 17 lane miles on SR 167.
Jen Schaeffer has been assisting our Nuclear Business Group on two projects in the Southeast. She has served as the field team lead for two nuclear plant site investigations in support of the combined operating license agreements (COLA) for Progress Energy. The work has included collecting soil samples and rock cores to meet nuclear regulatory requirements, downhole geophysical work, pressuremeter testing, and installation of monitoring wells. Over 8,000 LF of drilling was performed in North Carolina for the main phase program and over 7,000 LF in Florida for an initial phase program. The upcoming main phase in Florida includes over 17,000 LF of drilling with both sonic and mud rotary techniques.

Sandra McGinnis continues to provide field support to many of our projects, including the Tacoma/Pierce County HOV and Mercer Street Corridor projects.

Don Anderson and Ken Green continue to serve as senior advisors and consultants on projects nationwide and mentors to the local staff. Don continues his work on the NCHRP 1270 and NEHRP TS3 Seismic Foundation Committee. NCHRP 1270 involves Seismic Design of Retaining Walls, Slopes and Embankments, and Buried Structures while NEHRP TS3 involved updates to the current NEHRP documents.
Welcome to T-OZ Construction

T-OZ is an industry leader in foundation repair. Founded in 1996, by Tom Osborne, T-OZ is a specialty contractor, with a focus on the use of specialized portable equipment, materials, and techniques that provide a non-invasive approach to the foundation repair, including underpinning, hand excavation, drilled shafts, to stabilize and support existing foundations to lift and level homes or buildings that have settled. T-OZ has specialized equipment for driven and drilled shaft piles for retaining wall construction in limited or no access situations as well as grout injection (IBO) anchors, micropiles and pin piles.

Our diversity allows us to work on projects, large or small, public or private, with creative techniques to solve the problem. Our business goal is based on the time-honored practice when a handshake was the promise of a job well done. There may be more paperwork today, but our business practice is still the same. Finding the right solution at the right time, and with the right resources is always challenging for a contractor. T-OZ offers experience, equipment, technology and specialty methods that provide solutions to meet or exceed your requirements and expectations.

Providing solutions to
- unstable soil problems
- lateral stability to vertical walls
- prevent serious foundation damage
- restore and stabilize existing structures where settlement has occurred
- protect existing buildings from adjacent construction by shoring
- provide rapid foundation support in limited access areas
- provide rapid foundation support in contaminated soils
- provide rapid foundation support in most weather conditions

Seattle Public Utilities Materials Laboratory Geotechnical Group

The SPU Materials Laboratory Geotechnical Group had a great 2006. Henry Haselton was promoted to the Manager of the Materials Laboratory following the retirement of Al Rice after 38 years of service to the City. Jeff Fowler was promoted to the Supervisor of the Geotechnical Group. Nils Lindwall was promoted to Senior Geotechnical Engineer and Taryn Sass was promoted to Associate Engineering Geologist. UW student interns DevronErin Woods and Alexandra Nightingale were a great help during 2006.

Interesting projects we are working on include the replacement of four open, in-town reservoirs, with 5 to 50 million gallon buried tanks. Beacon and Myrtle Reservoirs are currently in construction and West Seattle and Maple Leaf reservoirs are slated for the coming years. As a group, we are gearing up for the 1st phase of construction of the South Lake Union Park Construction Project for the Parks Department. The 1st phase will replace the deteriorating existing bulkhead and decomposing wood waste fill that is resulting in substantial settlement behind the bulkhead.
In 2006, Nils Lindwall was the lead geotechnical engineer on a City Light project that was recently constructed. It included 92-foot deep, 10-foot diameter shafts to support the transmission lines from the Skagit River hydroelectric power plants. The previously existing tower was being threatened by a continually eroding bank of the Skagit River. Nils continues to take the lead on difficult seismic issues and rock-slope engineering problems, and has become the go-to person of such issues with our in-house clientele.

Taryn Sass became a Licensed Geologist this year passing the National Association of State Boards of Geology Examination. Taryn has continued to grow as a professional taking on more and more difficult assignments. We have come to rely heavily on her quality of work on field exploration, lab testing and instrumentation monitoring assignments on just about every project we send out the door.

Jeff Fowler has been the lead geotechnical engineer on several natural drainage projects throughout the City. These projects have created an alternative to traditional conveyance systems with much publicized success. He continues his volunteer efforts with ASCE as the presiding President-Elect and will assume the role of President next year. We look forward to continuing our participation in the ASCE Seattle Section Geotechnical Group’s activities in the coming year.

Icicle Creek Engineers

Icicle Creek Engineers (ICE) added two geotechnical engineers to our staff over the last 18 months, including Mary Rutherford, P.E., Ph.D., Principal Engineer and Bert Pschunder, P.E., Associate Engineer. This addition essentially doubles our design and analysis capabilities.

Our continued involvement with the Suncadia Resort project near Roslyn in Kittitas County keeps Matt Kogle, Brian Sullivan and Fred Tuttle busy. ICE has been providing construction observation services for the Suncadia project since 2004, with periodic design geotechnical, geological and environmental services dating to 1998. Scott Dobner continues to work at the Issaquah Highlands project, managing field personnel and providing construction observation services, in conjunction with our geotechnical design for large detention ponds, infiltration facilities, landslide mitigation and mass grading/development.

ICE continues to expand its knowledge base with respect to the collapse status of abandoned underground coal mines. During the past 10 years, Brian Beaman has overseen the completion of about 140 test borings into abandoned underground coal mines in King and Kittitas Counties. Jeff Schwartz recently completed several test borings into the abandoned underground No. 9 Mine near Roslyn and is currently working on a coal mine hazard assessment of a 500-acre property in Pierce County. Jeff also updated ICE’s in-house software program for evaluating regional ground subsidence.

After almost 11 years of limited marketing efforts, we have decided to diversify our client and project base. Kathy Killman has initiated a marketing plan to reach out and see what happens. We look forward to developing new clients in transportation, educational facilities and commercial development.
The AMEC Geotechnical Group had a very successful 2006 with a variety of new and ongoing projects including Sound Transit, community colleges and K-12 schools, and transportation and infrastructure projects. We look forward to another busy year in 2007.

Jess Abed led our geotechnical group for another successful year, focusing on business management and marketing. Principal Jim Dransfield continues to manage Sound Transit and other projects, juggling staffing for pile and shaft construction, retaining structures and earthwork. Henry Brenniman, Kristin Addis, and Jerry Ladd ably assisted Jim with inspections for piles, shafts, walls, and foundations on the future Sound Transit “ride”. Jim is also managing the geotechnical phase for a waterfront redevelopment project in the Caribbean in early 2007 and is planning to send key staff, including Bill Lockard, to supervise and support the fieldwork and drilling operations. Our Seattle office is teaming with AMEC offices from around the country to provide geotechnical and environmental services and construction management for this project.

After working hard to bring the geotechnical on-call WSDOT contract to AMEC in 2005, Associate Deb Ladd has secured work on both SR 900 and SR 9. In addition to providing the standard suite of geotechnical services for the SR 9 project, AMEC is also providing the pavement design for additional lanes and the natural /cultural resources requirements for the project.

Steve Siebert and Todd Wentworth have kept busy on several private projects, colleges and schools, and a variety of transportation and municipal projects. Carolyn Anderson continued her management of design and construction activities at Issaquah Highlands and prepared multiple critical areas reports for development in the area. Both Konrad Moeller and Cody Nelson got both sunburned and wet keeping up with project construction issues.

Carlo Evangelisti joined us in 2006, coming from our office in Albuquerque, NM, bringing with him experience in transportation projects and pavement design. Carlo has been busy working with Deb Ladd on the SR 9 project and providing pavement design services for the airfield at Andersen AFB in Guam. Also joining us in 2006 was geologist Lisa Erickson. Lisa has been busy supporting Carolyn Anderson at Issaquah Highlands for most of the year.

In 2007, as in 2006, we look forward to more cross-discipline work – especially with natural resources and environmental projects – including providing environmental documentation, wetlands mitigation design support, and contaminated site development.
Shaping the Future
Worldwide. Responsibly. For the long term.

AMEC’s vision, values, and objectives are founded on a commitment to sustainability at all levels of our organization—including supporting sustainable growth of the communities in which we do business. Established in Seattle since 1974, we are proud of the role we have played in many major projects in the Pacific Northwest.

Services:
- Geotechnical Engineering
- Environmental, Natural Resources & Planning
- Materials Testing & Special Inspection

AMEC is currently looking for geotechnical engineers and scientists to help fulfill our vision.
Please contact us at (425) 820-4669.

Milbor-Pita & Associates

Sandpoint, Idaho. Dorris, California. Oakridge, Oregon. Ogden, Utah. New Braunfels, Texas. Winlock, Washington. These are just a few of the exciting locations that Milbor-Pita & Associates (MPA) employees have worked over the last year. We expect that 2007, the thirteenth year of business for MPA, will bring us to equally exciting and obscure locations!

MPA has kept busy working on geotechnical, railroad and tunnel improvement projects throughout the United States. Gerry Millar consulted on a tunnel project in Punta Cana, Dominican Republic and other rail tunnel rehabilitation projects in the Appalachian Mountains, California, and Oregon. In September, Gerry received recognition as co-founder of the Dominican Geological Society as part of the 30th Anniversary celebration of the society. Frank Pita has been busy managing the company, in addition to consulting on geotechnical projects in the Northwest. MPA’s current projects include assisting Sound Transit in siting Eastside light rail routes and underpinning and shoring designs for contractors in the area.
In May, Frank and Carol Ravano gave a presentation at the ASCE Geotechnical Group Spring Seminar on MPA’s continuing effort to keep trains rolling across the Great Salt Lake Causeway in Utah. They will present this talk to the Southern California Railroad Engineers Group in March 2007.

In September, Carol and Maureen Kwolek spent a week in Biloxi, Mississippi, rebuilding houses damaged by Hurricane Katrina with 13 other engineers and contractors from Seattle. They have never sweated so much nor worked so hard in a week, but would recommend the experience to all!! ASCE sponsored the trip through Rebuilding Together Seattle, and MPA funded their travel expenses. Maureen continues working on drainage investigations and repairs, and has been busy with our record rainfalls.

Margaret Stoffel and Matt Needles spent much of their year in tunnels in Central Oregon and Northern and Southern California, monitoring rehabilitation of numerous 100-year old railroad tunnels. MPA looks forward to another busy, prosperous year filled with interesting projects.
Shannon & Wilson

Shannon & Wilson had a very busy and successful 2006. Dr. Ming-Fang Chang joined our Seattle Office as an Associate. He was most recently an associate professor at Nanyang Technological University in Singapore. Additional 2006 hires: Kathryn Petek, David O’Malley, Ghada Ellithy, Juan Carlos Ramirez, Mike Harney, Paul Zehfuss, Nell Beedle, and Rosa Radding.

The following staff were promoted in 2006: Red Robinson, Hollie Ellis, Bill Laprade, and Greg Fischer to Senior Vice President; Roberto Guardia and Matt Henry to Vice President; Katie Walter and Richard Martin to Senior Associate; and Carole Mitchell and Monique Nykamp to Associate. Congratulations to Brian Reznick and Jim Mattoon, who both received their Professional Engineering License in 2006.

One of our founders, Bill Shannon, passed away last year. In his honor, Shannon & Wilson has established a $100,000 endowed graduate fellowship at the University of Washington School of Civil and Environmental Engineering. The William L. Shannon Memorial Endowed Fellowship and Research Fund in Geotechnical Engineering will be used for graduate tuition and research.

Shannon & Wilson and co-entrant HKM Engineering received an ACEC National Honor Award at the 2006 Engineering Excellence Awards for the Beartooth Highway Emergency Repairs Project, Red Lodge, MT. The project also received awards from AGC Build America, American Public Works Association, and Design-Build Institute of America.

Notable projects from the past year included:

Several task orders under our HTRW contract with the Seattle District Corps of Engineers, including: Del Bonita Site Investigation in Cut Bank, Montana; and Quillayute Station Remedial Investigation in Clallum County, Washington.

Continued geotechnical and environmental work on the Alaskan Way Viaduct and Seawall replacement.

Work at Howard Hanson Dam, under an IDIQ Geotechnical Contract with the Seattle District Corps of Engineers.

Work on several General Engineering Consultant contracts for the Washington State Department of Transportation, including the SR-520 Bridge replacement.

Geotechnical and natural resource services for the new park underway at South Lake Union.

Work on a project for the Dakota, Minnesota & Eastern Railroad (DM&E), providing geologic and geotechnical services for a 1,134 mile regional railroad with a 724 mile main line.

Over 170 attended the 2006 Wilson Lecture cosponsored by the University of Washington’s Civil and Environmental Engineering Department. Dr. I. M. Idriss presented his lecture “Liquefaction during Earthquakes – An Update”.


Golder Associates, Inc.

Golder Associates Inc. enjoyed another successful year highlighted by strong growth, notable projects and awards, charitable contributions, and staff accomplishments. We opened an office in downtown Seattle at 6th Street and Blanchard Street to better serve Seattle clients as well as staff who live in Seattle, as well as an office in Spokane to address geotechnical needs in eastern Washington. Thirty-nine new employees were added to the Seattle and Redmond offices; twelve in the engineering group.

Golder was honored with several awards last year, including: ACEC Washington Silver Award for the design and construction of the Le Reve Mountain at the Wynn Las Vegas Resort and Casino; CE News magazine, 7th in Top CE Large Firms to Work for in the United States; ENR, 75th in Top 500 design firms; and Northwest Construction, 11th in Top Design Firms in Washington, 3rd in geotechnical firms.

Golder staff participated in several charity and fundraising events in 2006. Sixteen members of Team Golder joined 1,200 other cyclists and rode 150 miles to support the Multiple Sclerosis charity in the MS 150 bike tour. Golder also entered three teams in the 100-mile Mountains to Sound Relay to benefit the Mountains to Sound Greenway.

Congratulations to the following individuals who received their Professional Engineer’s Licenses: Sam Christie, Marketa McGuire, Steven VanShaar, and Adrianne Yang.

Notable Projects:
As a WSDOT unstable slope consultant, Golder developed a stabilization strategy and plan for the highest hazard slopes along the Snoqualmie Pass corridor of I-90. With the specter of 30-miles traffic backups continuing into the 2006 winter season, and the danger of working on icy slopes, Golder used innovative methodologies to mitigate the highest hazard slopes. We mapped the terrain using advanced computer software and removed the unstable rock using a mechanical scaling machine. The scaling combined with selected rock slope reinforcement resulted in a mitigated slope before the onset of the 2006 winter season.

Golder continued its work on the Camisea Natural Gas Project in Peru. The project features twin high pressure natural gas pipelines from the Amazon Basin across the Andes Mountains to the Pacific Coast, a gas liquefaction plant south of Lima, and an offshore loading facility for large LNG tankers. Large diameter tanks, pile-supported trestles, and a deep offshore breakwater are being designed to accommodate a major earthquake along the Nazca-South American Plate subduction zone.

Golder is the geotechnical engineer for the Timber Ridge project, a large extended care facility under construction at Talus in Issaquah. The seven-story concrete building required a significant field investigation and engineering analysis to optimize the foundation design. The site is situated on a hillside just above SR-900 and is bordered on the upslope side by a series of tiered MSE walls.

Senior Project Geotechnical Engineer

The Redmond office of Golder Associates Inc., an employee owned consulting company specializing in ground engineering and environmental science, is seeking a Senior Project Geotechnical Engineer.

Details regarding this position are presented on the following page.
Position Requirements:

A minimum of 8 to 10 years of geotechnical engineering experience; A B.S. in Civil or Geologic Engineering, and a M.S. in Civil (Geotechnical) or geologic engineering preferred. Experience with geotechnical investigations, geotechnical design and construction activities; experience managing clients, other consultants and contractors; the ability to communicate effectively both verbally and in writing; and the ability to work independently and as part of a multi-disciplinary team preferred.

Position Responsibilities:

Responsibilities will include managing small to mid-size geotechnical projects, performing engineering analysis for slope stability, retaining walls and foundation design, conducting and/or managing field explorations, providing construction support, writing reports and mentoring junior staff. The successful candidate will have the ability to work independently, as well as part of a multi-disciplinary team. The candidate will have the ability to establish and grow a client base, and maintain effective client relations.

Competitive salary with an excellent benefits package. EOE/M/F/D/V.

Interested candidates must apply on-line at www.golder.com Careers/US/Redmond Career Opportunities.

DBM Contractors, Inc.

Well, 2006 proved to be a banner year for DBM, experiencing perhaps our biggest single growth year ever. Here are a few highlights….

**US 20 to Eddyville-Pioneer Mountain, Eddyville, OR** – DBM worked with Granite/Hamilton on one of the large design/build ODOT projects to install drilled shaft foundations for new bridge structures included in the realignment of the road from Corvallis, OR to the coast. Drilled shaft foundation diameters ranged from 4 ft. to 10 ft. and extended to depths in excess of 60 ft.

**Four Seasons Resort Hotel and Condominiums, Seattle, WA** – Located on First Avenue across from the new Washington Mutual Tower, the new Four Seasons project required an earth retention system that extended up to 80 ft. below First Avenue. The excavation support system had to be installed in close coordination with the demolition of the existing parking garage on site. The First Avenue side of the shoring system had to be in place including the upper two rows of tiebacks to provide lateral support to First Avenue prior to removing the existing structure. This required very limited work access for installation of soldier piles along busy First Avenue, and installation of tieback anchors inside the existing structure.

**Olive 8, Seattle, WA** – DBM completed installation of the excavation support system for the new luxury hotel and residences. The shoring system included anchored piles, with a composite soil nail system along the alley side of the site to support the alley and buried utilities. The soil nail and shotcrete system was limited to the narrow width of the alley by the adjacent existing building basement. The shoring system extended up to 70 feet deep and included underpinning of the existing Paramount Hotel.
The **DBM Southwest Regional Office** opened formally last year in Vista, California and kept newcomers Rick Walsh and Forest Badeaux busy with several soil nail wall, anchored pile wall, drilled shaft and micropile projects. So far, 2007 looks to be another busy year for our new southwest group with several jobs and prospects in California, Nevada and Arizona.

Some highlights in the year to come include large excavation support projects in Seattle The Escala @ Fourth & Virginia, 2201 Ninth Avenue, 1100 Eastlake Building, Swedish Orthopedic Institute, and Touchstone West Eighth Building. Permanent earth retention and slope stabilization projects in Oceanside and Lake County, California will be getting underway soon as well.

We look forward to another exciting year, sustained growth and working with many of our familiar team partners again. Happy New Year!

---

The **GROUNDHOG** is the official annual newsletter of the ASCE Seattle Section Geotechnical Group.

The next issue of the **GROUNDHOG** publication will be published in late January or early February of 2008.

Submissions for this document were solicited from members of the Seattle Section and others associated with the geotechnical engineering community. ASCE and the Seattle Section Geotechnical Group are not responsible for statements made or opinions expressed in this document. This issue of the **GROUNDHOG** was prepared and edited by Sean Caraway, the Secretary of the group.

**AMERICAN SOCIETY OF CIVIL ENGINEERS - SEATTLE SECTION - GEOTECHNICAL GROUP**

---

Mike Harney  
President, ASCE - Seattle Section - Geotechnical Group  
Shannon & Wilson, Inc.  
400 North 34th Street, Suite 100  
Seattle, WA 98103  
O (206) 695-6850  
F (206) 695-6777  
mdh@shanwil.com