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2012-2013 Officers

Back: Todd LaVielle, Tyler Stephens, Bob Metcalfe, and John Bickford
Front: Elizabeth Lundquist, Mike Lach, Lynn Salvati, and Fadzilah (Dila) Saidin

PRESIDENT
John Bickford, P.E.
Magnus Pacific

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CDM Smith

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GeoEngineers, Inc.

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Lynn Salvati, PhD, P.E.
Jacobs Associates

PUBLIC RELATIONS CHAIR
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Shannon & Wilson

WEBMASTER
Elizabeth Lundquist
Parsons Brinckerhoff
President’s Message

Welcome to the 2013 edition of the Groundhog! The Groundhog is our official publication for the ASCE Seattle Section Geotechnical Group and Seattle Geo-Institute (GI) Chapter. It has been published annually since 1999 making this the 17th Edition! You can go on to our website at (www.seattlegeotech.org) and peruse all of the past editions. Personally, I find it interesting to look back at how the Groundhog has evolved over the years. Anyway, as in year’s past, this issue includes a summary of the 2012 – 2013 term activities as well as news and notes from the local geotechnical engineering and construction community.

First, I would like to start by thanking this year’s officers for their dedication and support. With our lives seemingly moving faster than ever, these individuals have committed to volunteering their services and time so that our organization can function and serve the geotechnical community in the Puget Sound region. This year, our officers include: Mike Lach President Elect, Todd LaVieille Secretary, Fadzilah (Dila) Saidin Treasurer, Lynn Salvati Education Chair, Tyler Stephens Public Relations Chair, Bob Metcalf Membership Chair and Elizabeth Lundquist Webmaster. Many of you know or work with these individuals, so please thank them for their efforts when you have the opportunity.

I would also like to acknowledge the services of Bo McFadden, Lorne Arnold and Collin McCormick. Bo is a member of the Local Involvement Committee (LIC), sponsored by ASCE GI national. This committee acts as a liaison between local GI chapters and GI national with the goal to increase and promote local involvement in the Geo Institute. Lorne and Collin have been our contacts for the graduate program at the University of Washington. These two gentlemen have done a great job in coordinating student participation with our group.

During the first half of this term, we have organized one dinner meeting per month between September and January and participated in the Seattle DPD Landslide Awareness Meetings in October and November. Looking ahead to the second half of this term, we will be organizing dinner meetings in February and March as well as our annual 1-day Spring Short Course/Seminar. Please refer to our ‘Events Schedule’ and ‘Spring Seminar Update’ later in this edition for additional information.

As some of you may already know, the Seattle G-I Chapter was awarded with the 2012/2013 Geo-Institute Cross USA Lecture Series. The Geo-Institute of the ASCE provides the Cross USA Lecture Tour as a service to local GI groups and members as an ongoing program to enhance the prestige of the Geo-Professions. The lecturer this year is Dr. John T Christian. Dr. Christian delivered the Terzaghi Lecture in 2003 and is the current Chairman of the Civil Engineering Section of the National Academy of Engineering (NAE). This event will be a joint meeting with UW GIGGS during our March dinner meeting (March 28) and will be held at the University of Washington. More details are forthcoming.

Something else you will see in the next half of this term will be recognition of the ASCE Seattle Section Centennial (slated for the year 2013). In celebration and in tribute to the people, projects, and policies that ASCE has contributed to in the Puget Sound region, the centennial celebration will be a year-long event in recognition of the past 100 years. Please visit the ASCE Seattle Section website (www.seattleasce.org) for more information. Some of the things our group has planned in order to participate in this celebration will be including the centennial logo in all of our correspondence, a brief presentation at each dinner meeting recognizing past geotechnical people/projects throughout our Puget Sound region, as well as hosting a joint dinner meeting with Seattle Section (in February). This joint
meeting will be on the ‘Deconstruction of the Elwha Dams’ and provide a historic geotechnical perspective associated with the dams as well as current construction design and progress.

Our group’s financial position remains strong. Revenue for our group is mostly generated from our Spring Short Course/Seminar and each Groundhog publication. Dinner meetings tend to “break even”. We have, however, consciously kept the price of our dinner meetings the same over the last three years to encourage participation and attendance from our group. Given our current financial strength, the officers have elected to contribute a significant portion of our savings to the Robert D. Holtz Endowed Fellowship. Please plan on attending our upcoming Spring Seminar for the check presentation to Dr. Holtz. Our officer’s also voted to continue contributing to the UW Chapter of Engineers without Borders. The exact amount and donation will be completed before the end of this term.

Speaking of the Holtz Endowment, I am happy to report that Sam Sideras was awarded with a scholarship from the endowment for the school year 2012/2013. Sam obtained his undergraduate degree from Seattle University (my alma mater…go Redhawks!!) in 2009 before moving on to the UW where he got his master’s degree in 2011. Sam is currently in the second year of the PhD program and is working under the direction of Dr. Steve Kramer investigating techniques to improve upon the current methods for liquefaction hazard evaluation.

Finally, I want to share with everyone our groups Mission Statement:

“To advance the geotechnical practice in the Puget Sound region by providing leadership on public issues, sharing professional experiences and promoting education.”

Our group currently has more than 500 members and is one of the most active chapters in the United States. Getting involved and volunteering is what keeps our group growing and moving in a positive and productive direction. Please plan on attending our upcoming events and supporting your group. I look forward to seeing you all at the upcoming dinner meetings and Spring Short Course/Seminar.

John Bickford, P.E.
President
# 2012-2013 Events Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Speaker</th>
<th>Topic</th>
<th>Venue</th>
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<tbody>
<tr>
<td>27-Sep-12</td>
<td>DM, joint with AEG</td>
<td>Oliver Hoopes, Shannon &amp; Wilson</td>
<td>Estimation of Locked-In Lateral Stresses</td>
<td>Best Western</td>
</tr>
<tr>
<td>25-Oct-12</td>
<td>DM</td>
<td>Joe Clare, MWH</td>
<td>What to do when a TBM is stopped 320 feet deep below a residential neighborhood</td>
<td>Best Western</td>
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<td>15-Nov-12</td>
<td>DM</td>
<td>Dr. Bengt Fellenius</td>
<td>Wick Drains and Piling for Cai Mep Container Port, Vietnam</td>
<td>Best Western</td>
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<tr>
<td>24-Jan-13</td>
<td>DM</td>
<td>Dr. Jonathan Bray, UC Berkeley</td>
<td>2012 William B. Joyner Memorial Lecture - Building Near Faults</td>
<td>Best Western</td>
</tr>
<tr>
<td>28-Feb-13</td>
<td>DM, joint with ASCE General Section</td>
<td>Don Laford, URS Barbara Maynes, NPS</td>
<td>Deconstructing the Elwha Dams</td>
<td>Best Western</td>
</tr>
<tr>
<td>28-Mar-13</td>
<td>DM, Joint with GIGGS (Hennes Lecture)</td>
<td>Dr. John Christian, Geoinstitute Cross USA Lecturer</td>
<td>Application of Reliability Methods in Geotechnical Engineering</td>
<td>UW Campus</td>
</tr>
<tr>
<td>19-Apr-13</td>
<td>SC</td>
<td>Paul Schmall and Gregory Landry, Moretrench</td>
<td>Dewatering and Groundwater Control for Construction</td>
<td>TBD</td>
</tr>
<tr>
<td>20-Apr-13</td>
<td>SS</td>
<td>In Progress</td>
<td>Groundwater Characterization and Design Issues for Geotechnical Professionals</td>
<td>Kane Hall, UW</td>
</tr>
</tbody>
</table>

DM      Dinner Meeting  
SC      Short Course  
SS      Spring Seminar
Spring Seminar Update

30 years of history! The ASCE Seattle Section Geotechnical Group and Seattle Geo-Institute Chapter is proud to announce that our 30th Annual Spring Seminar will be held on Saturday, April 20th, 2013 on the University of Washington campus at Kane Hall. Based on feedback from our group’s membership, we will be presenting this year’s seminar,

“Groundwater Characterization and Design Issues for Geotechnical Professionals”

We have an esteemed group of experts lined up to speak at the Seminar covering a wide range of groundwater-related topics including exploration and characterization of groundwater regimes, designing for infiltration, dewatering, and waterproofing of underground structures. Presentations will cover practical design and construction as well as insights into cutting edge research and new regulatory requirements.

Our Steering and Planning Committees are hard at work ensuring that our group continues to produce one of the most respected regional seminars in our industry, but we could still use your help. Volunteers for the Planning Committee are still needed and always welcome. Please contact Mike Lach at lachma@cdmsmith.com if you are interested in helping out. It’s a great way to get involved with the group!

Mark your calendars and make plans to attend the 30th Annual Spring Seminar, and look to our website (www.seattlegeotech.org) by early March for more details and to register!

Mike Lach, P.E.
President-Elect
2012 Distinguished Service Awards
Presented at the Spring Seminar - May 12, 2012

Over the years it is unlikely that the Geotechnical Group’s mission has changed much, but it was formally stated a few years ago:

“to advance geotechnical practice in the Puget Sound Region by providing leadership on Public issues, sharing professional experience, and promoting education”.

The ASCE Seattle Section Geotechnical Group recognized two engineers at our May 12, 2012 Annual Spring Seminar who have provided support to this mission. Our 2012 Distinguished Service Award recipients are James Thompson and Paul Grant.

James B. Thompson

Jim served as president of the Geotechnical Group for the 1989/1990 term, while with GeoEngineers. He has served on the nominating committee and on the Spring Seminar and short course planning committees many times.

Following his run through the ranks in the Geotechnical Group, Jim served as President Elect, president, and past President of the ASCE Seattle Section from 1996 to 1998. Jim also served on the Legislative committee, curriculum advisory committee, budget committee, as a representative on Joint ASCE/ACEC Legislative Council, and as a coordinator for local activities as part of the 2000 ASCE National Conference held in Seattle.

Jim also volunteered for the ASCEGeoInstitute and served as Chair of the Sections and Branches Council that was tasked with providing coordination between local sections and the GeoInstitute. While also with the GeoInstitute, Jim served on the Technical Coordination Council and on the LFRD committee.

W. Paul Grant

Paul represented the Geotechnical Group to a wide audience, including serving as ASCE Seattle Section President and as a Technical Director.

His representation has also been increased by his involvement with the Puget Sound Engineer Council (PSEC), where Paul has served as President and also ASCE’s representative. Paul has coordinated outreach efforts for Engineering Mentor Nights at various local universities and colleges where members of the Geotechnical Group have volunteered their time and talents to encourage students to pursue careers in engineering. Paul is also the coordinator for ASCE’s booth at the Engineers Week Fair at the Museum of Flight, where Geotechnical Group members have worked with K thru 12 students to spark their interest in engineering.

Paul has also been active with ASCE’s Legislative committee and more recently he has been involved with the committee on Continuing Education for licensure. Paul has also been a past chair of the Seattle Section’s Lifeline Earthquake Engineering Committee and he was co-chair of the Technical Program Committee for the Sixth US National Conference on Earthquake Engineering that was held in Seattle. He also severed on committees of the Applied Technology Council that developed guidelines for the seismic rehabilitation of buildings.

Bob Metcalfe, P.E., L.E.G.
Membership Chair
Public Relations

The chapter has had another year of public outreach to increase awareness of the geotechnical profession and educate the public regarding local geotechnical challenges. Chapter outreach has been through collaboration with several organizations.

City of Seattle DPD

The chapter has continued its support of the City of Seattle DPD landslide awareness meetings, attended both events this year. We staffed a booth, answered questions, and provided informational materials to attendees.

Puget Sound Engineering Council

We are planning to staff a booth at the Puget Sound Engineering Council engineering fair at the Boeing Museum of Flight on February 9, 2013. We will likely continue our tradition of helping budding young engineers build toothpick and gumdrop structures at our booth.

We are also planning to have members present at the PSEC mentor nights where students can interact with practicing engineers and learn about what an engineering career entails. Events are scheduled for January 31, 2013 at Seattle Central Community College and March 6 at North Seattle Community College.

American Society of Civil Engineers (ASCE) Seattle Section

The Seattle Section turns 100 years old in 2013!

In 2013, the ASCE Seattle Section celebrates its centennial year. To commemorate 100 years of professional service and civil engineering achievements, the Section is hosting a yearlong centennial celebration. This program will feature a series of events and activities to both honor the professional community and engage the public and civic leaders in the celebration of local civil engineers. The centennial year celebration will honor the People, Projects and Policies that are monumental to both the advancement of the civil engineering profession and development of the Seattle area.

To kick-off the year the Seattle Section has developed the Civil Engineers that Built Seattle – Centenary Exhibit to showcase the heritage of civil engineers in the Northwest and to raise public awareness within the non-engineering community of the essential contribution of civil engineers.

The series of 10 museum quality display panels spotlight the “people” aspect of civil engineering, focusing on the civil engineers who have built projects and created organizations that have contributed to the growth of Northwest Washington State. From George Vancouver’s mapping of the Puget Sound, to Hiram Chittenden’s locks, railroad tunnels at Stevens Pass, and power generation at Snoqualmie Falls, the exhibition describes the dreams, failures, and political battles that characterized these works and the civil engineers that created them. The exhibit opened on January 14th, 2013 at the Seattle Tacoma International Airport at Gate B4.

The G-I Chapter is planning historically-themed presentations that highlight some of the geotechnical challenges that designers have faced during Seattle’s construction. If you have suggestions for presentation topics, or would like to volunteer to give a presentation please contact one of the officers.

Tyler Stephens, P.E.
Public Relations Chair
The American Society of Civil Engineers Seattle Section turns 100 in 2013!

The American Society of Civil Engineers (ASCE) Seattle Section celebrates its centennial year anniversary in 2013. To commemorate 100 years of professional service and civil engineering achievements, the Section is hosting a yearlong celebration. The program will feature a series of events and activities to both honor the professional community and engage the public and civic leaders in the celebration of local civil engineers.

To kick-off the celebration, ASCE launched the Civil Engineers that Built Seattle – Centenary Exhibit on January 14 at Sea-Tac International Airport. The exhibit showcases the heritage of civil engineers in the Northwest and highlights their remarkable contributions to the development of the region. The series of 10 museum quality displays feature civil engineers who built projects and founded organizations essential to the growth of Northwest Washington State -- including George Vancouver’s mapping of the Puget Sound, Hiram Chittenden’s locks, railroad tunnels at Stevens Pass, and power generation at Snoqualmie Falls. The exhibit describes the dreams, failures, and political battles that characterized these works and the civil engineers who created them.

The exhibit opened to the general public on January 14, 2013 at the Sea-Tac International Airport at Gate B4. The exhibit will be displayed at the following locations throughout 2013:

- Sea-Tac International Airport, Gate B4 – January 14th - May
- Snohomish County Administration Building, Everett – June
- Pioneer Association of the State of Washington’s Pioneer Hall, Seattle – July
- Museum of History and Industry (MOHAI), Lake Union Park, Seattle – October thru December
- Visit the Centennial webpage for updated locations and dates of display.

The centennial year celebration will honor the People, Projects and Policies that are monumental to both the advancement of the civil engineering profession and development of the Seattle area. In addition to the exhibit, the Section will be releasing an update to the Seattle Infrastructure Report Card, partnering with Seattle Parks Department to complete a trail restoration, and hosting the Marquee Centennial Gala in October.

ASCE Seattle Section was founded on June 30, 1913 and has since grown to nearly 2,500 members within a nine county geographic area comprising of King, Snohomish, Skagit, Island, Whatcom, San Juan, Kitsap, Clallam, and Jefferson Counties. The Section’s commitment to the advancement of civil engineers is demonstrated through its leadership, sense of community and dedication to the profession. From organizing professional development opportunities to recognizing the outstanding achievements of local civil engineers, the Section has a longstanding history of fostering the growth of civil engineers and celebrating their successes.
The Geo-Institute Graduate Student Society (GIGSS) is a student-run organization at the University of Washington created to provide a platform for students to gain exposure to the current state of the practice of geotechnical engineering. GIGSS hosts a seminar series at the UW featuring geo-professionals from the industry and from academia. GIGSS also organizes teams for national Geo-Institute student competitions, such as GeoPrediction, and several social events including barbecues and gatherings at a local happy hour to encourage a sense of community among students, practicing engineers and geotechnical faculty. These events are often hosted and attended by the geotechnical faculty members (Professors Pedro Arduino, Robert Holtz, Steve Kramer and Joseph Wartman).

GIGSS members are always encouraged to attend the local G-I / ASCE SSGG dinner meetings and get involved with the professional community. Several of our members have volunteered to help put on the ASCE SSGG Spring Seminar and Short Course in the past. This year, GIGSS has helped organize two joint meetings with the G-I Seattle Chapter/ASCE SSGG including the 2012 McEllhiney lecture featuring Marvin Glotfelty, and the upcoming Geo-Institute Cross USA Lecture featuring Dr. John Christian.

During the past year, GIGSS hosted the following guest speakers: Ben Upsall from Hart Crowser, Dr. Daniel Pradel from Group Delta Consultants, Monique Anderson from Shannon & Wilson, Matt Smith and Lindsay Flangas from GeoEngineers, Daniel Mageau from SoilFreeze, and Dr. Timothy Stark from University of Illinois.

All of our speakers donate time to share their knowledge and experience with us and we greatly appreciate their contribution to our education.

GIGSS is free for students to join and our lectures are free for anyone to attend. We are supported entirely by fundraising events and contributions from local organizations. We are very grateful to have received a $5000 donation from the local G-I/ASCE Seattle Section Geotechnical Group this past year. We have recently purchased a new data acquisition system and sensors for our geotechnical teaching lab with these funds.

Although GIGSS’ events are targeted toward geotechnical graduate students, undergraduate and graduate students from other disciplines are invited to attend and gain a better understanding of our field and perhaps develop an interest in pursuing a career as a geo-professional. Local professionals are also invited to attend our seminars and social events. GIGSS plans to continue hosting informative lectures and social events in 2013.

The GIGSS officers for 2012 were: Tristan Anderson (President), Zach Lootens (Vice-President), Tori Hesdahl (Secretary) and Samuel Probert (Webmaster).

The incoming GIGSS officers for 2013 are: Collin McCormick (President), Matt Koziol (Vice-President), Lisa Dunham (Treasurer) and Chris de la Torre (Secretary).
Local Firm Summaries

ASCE Seattle Section Geotechnical Group would like to thank the following companies for volunteering to submit articles for the 2013 Groundhog publication. The Groundhog is published to inform group members and others of the group’s achievements, recent activities, goals, changes in the group and other significant issues in the local geotechnical community.

Each local organization represented by the group’s membership is invited to submit a brief article summarizing their organizations services and trends over the past year, plans for the coming year, changes in the organization and promotions.

The company articles are arranged within the Groundhog publication in alphabetical order.

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<td>Hayward Baker</td>
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<td>Holocene Drilling</td>
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Advanced Geosolutions, Inc. (AGI), The Premier Design-Build Geotechnical Contractor™, specializes in alternative foundation systems using Soil Improvement technologies and Specialty Piling. Our Concept-to-Completion approach provides high end design capabilities with proven construction techniques to deliver economic and technically sound foundation solutions. AGI Soil Improvement services include: Soil Mixing, Vibro Technologies (Stone Columns / Aggregate Piers / Vibro Compaction), Compaction Grouting, Dynamic Compaction, Wick Drains, and Slurry Walls. Our Piling services include: Helical Steel Pipe piles, Micropiles, Displacement piles, and Drilled Shafts. AGI has pioneered the largest known capacity on a single unreinforced Soil Mix column and single Helical Pile. AGI operates in Washington, Oregon, California Utah, and British Columbia. In the year 2012, AGI performed 5 contracts in and around the Seattle Area: Stone Columns at the Stadium Way road rehabilitation in Tacoma, and at the Port of Vancouver; Soil Mixing at the SR520 route expansion in Bellevue; Limited headroom Helical Piles for the retrofit of the Amtrak King Street Station in Seattle; and High Capacity Helical Piles for the new parking structure and retail level of the University Village mall in Seattle. Our helical piles at the University Village were tested to 1000 kips of axial load and provided a fitting solution with quite construction and no spoils. We look forward to the opportunity to earn your business and experience the AGI difference. We are committed to meeting our clients needs with innovation, cost efficiency, outstanding quality, and timely performance. We invite you to check out the enclosed advertisement, visit our website (www.advgeosolutions.com) and contact us to explore your project options and costing. Please contact Juan Baez, PE. Ph.D., jbaez@advgeosolutions.com, or Raul Verduzco, M.Sc., rverduzco@advgeosolutions.com for more information.

AMEC Environment and Infrastructure

In 2012, AMEC’s Geotechnical Group in our Bothell office worked on a variety of interesting local projects: including transportation and infrastructure improvements for many cities, redevelopment of several schools, retail/commercial development, aviation and mining projects; as well as some international projects.

Jim Dransfield provided consulting to other AMEC offices around the US and globally on waterfront development and mining projects, in addition to his local projects for buildings, utilities, quarries, landfills, levees, stream restoration, and sediment cleanup. Jim and Bill Lockard have been working with our Seattle office on redevelopment and shoreline habitat restoration for an industrial site along the Duwamish River.

Steve Siebert managed several projects at Pacific Lutheran University (PLU), Joint Base Lewis McChord (JBLM), and Grand Ridge Plaza at Issaquah Highlands. Steve provided geotechnical oversight during raising of a large tailings dam in Eastern Washington and assisted our Portland office on two slope stabilization projects. He also continues to provide third party geotechnical review to various cities for developments in critical areas.
Early in 2012, Todd Wentworth completed a design-build, landslide repair project in Hawaii and returned to the cold weather of the Pacific Northwest to design a landslide catchment wall for the City of Seattle. He has been managing the geotechnical design and construction services for several schools this year, including one school that is infiltrating all of the stormwater through deep UIC wells. Todd presented a case history about the deep UIC wells at StormCon2012 in Denver and to the Seattle ASCE Water Resources Committee.

This past year Carlo Evangelisti was involved with design and construction of two community aquatic centers, provided pavement design for several JBLM airfield projects and worked on a large residential development on the Washington coast. He and Jim worked together on street improvement recommendations for the City of Renton.

Henry Brenniman has been busy working on landslide repairs for the City of Seattle, the Issaquah Creek fish passage project and several culvert replacements.

Konrad Moeller and Pat Reed continue to be involved on a number of local geotechnical construction monitoring projects.

Minjae Park provided support during construction of stormwater infiltration facilities for several schools, including emergency re-design of rain gardens. He also assisted on multiple projects at PLU and JBLM.

Anchor QEA saw steady growth in all services of the company for 2012 with another productive year in the geotechnical engineering group. Our geotechnical work this year included:

- Engineering design on multiple contaminated sediment cleanup projects nation-wide
- Engineering design for several dock replacement projects in Puget Sound and on Lake Washington
- Engineering design for several shoreline restoration projects in Puget Sound and on Lake Washington
- Engineering design for several stormwater management projects
- A variety of bulkhead and pile design projects in the Puget Sound area

Anchor QEA’s geotechnical engineering group consists of nine PEs and two EITs. Michael Whelan, PE continues to provide support and project management of geotechnical projects throughout California, Hawaii, and the Great Lakes. John Verduin, PE, John Laplante, PE, Rebecca Gardner, PE, Rick Goode, PE, and Matt Woltman, PE continued project management and geotechnical supervision of projects in the Pacific Northwest, Great Lakes, Gulf of Mexico, and Canada. Jeff Warren, PE, Wes MacDonald, PE, Matt Carlino, and Zac Koehn continue to provide support on a wide range of geotechnical projects across the nation. Matt is located in Amesbury, Massachusetts along with Paul LaRosa, PE, who continues to provide support and leadership on geotechnical engineering, sediment dredging and capping projects on the East Coast.

Here is recent activity highlighting Anchor QEA’s 2012 achievements:
Geotechnical • Environmental • Testing

PSI – The Northwest’s Source for Information To Build On

Current openings across our service lines

Geotechnical
Site Development Evaluation • Foundation Analysis and Design
Liquefaction Analysis • Site Specific Seismic Hazard Analysis
Slope Stability Analysis • MSE Wall Design • Construction Observations

Environmental
Phase I and II Environmental Site Assessments (ESA)
Underground Storage Tank Management
Groundwater Monitoring • Subsurface Investigations
Indoor Air Quality • Lead Based Paint and Asbestos Testing

Special Inspection/Materials Testing
Washington Association of Building Officials (WABO) Certified Special Inspection Services
Materials Testing Laboratories Certified by WSDOT, A2LA, DOE, AWS, ANSI, ICC and Army Corp of Engineers

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10025 South Tacoma Way • Tacoma, WA 98499 • (253) 589-1804
6032 North Cutter Circle • Portland, OR 97217 • (503) 289-1778
www.psiusa.com
Company Awards: The Western Dredging Association (WEDA) named Anchor QEA, LLC the 2012 “Dredger of the Year” for our work in modernizing the WEDA website.

Company Recognition: Anchor QEA earned a spot on the Engineering News Record Magazine’s list of Top 200 Environmental Engineering firms for 2012, ranking 115.

Individual Awards: Jeff Warren and Wes MacDonald earned their Professional Engineering licenses this past fall.

Anchor QEA continued its scholarship opportunity in 2012 for the 14th consecutive year. Last year, 6 scholarships ranging from $1,000 to $2,500 were awarded to students majoring in Civil and Environmental disciplines, Landscape Architecture, Planning and Management, and Environmental Sciences.

In 2013, we anticipate continuing our growth as a company and as engineers, with increased project responsibility for younger staff, continuation of many of our large projects across the country, and the addition of new and challenging environmental and engineering projects.

Please feel free to contact us at our main office in Seattle at 206-287-9130 or at any one of our other offices, and keep in touch and informed by visiting our website at www.anchorqea.com.

Michael Lach
LachMA@cdmsmith.com

CDM Smith provides lasting, integrated solutions in water, environment, transportation, energy and facilities to public and private clients worldwide. In the Northwest, CDM Smith has offices in Bellevue, Seattle, Portland, Helena, and Libby.

John Newby, P.E., leading our Geotechnical Services Division in the Western U.S. and Asia from the Bellevue office, served as program lead, lead practitioner, or senior geotechnical consultant on major infrastructure projects throughout the Western U.S., Singapore, and Vietnam. Joe Souther, P.E., leading the geotechnical group in Bellevue, travelled to Vietnam for design and evaluation of preloading and drainage systems for a new highway in the Mekong Delta. He also provided geotechnical design and construction services for new mining and mine reclamation projects in several Western states.

Ulf Gwildis, L.E.G., continued as CDM Smith’s construction services manager for the Brightwater Conveyance System, overseeing geotechnical construction work after the completion of 13 miles of tunnels. He provided geotechnical services for tunnel projects in Singapore and Chile, construction oversight during the Ashton Dam core replacement in Idaho, and worked on rock slope design in Arizona.

Mike Lach, P.E. performed modeling of soil-structure interaction for several underground construction projects with complex geometric and loading conditions, such as a by-pass conduit for a double-horseshoe-shaped tunnel under a flood control dam in Ohio, impact evaluation for a diverted creek brick sewer in Washington DC, and for existing utilities and structures along the Alaskan Way Viaduct tunnel alignment. Karen Irby-Smith, managing our geotechnical laboratory, was involved in developing innovative testing of the drain rate of soils for a benchmark study of an environmental dredging project in New Jersey. She also worked on the repair design of a major road slide in Montana.

Our Geotechnical Services Division had a successful year and several technical papers were published highlighting successful projects and innovative solutions. The resources provided by our geotechnical
professionals in seventeen states cover the whole range of geotechnical engineering. In addition, we can turn to the internationally acknowledged expertise of our affiliated colleagues in Germany in specialty fields such as ground freezing design, geothermal energy concepts, and high-speed-rail infrastructure expansion.

We continue seeking to add geotechnical professionals to our team working on numerous technically exciting and challenging projects throughout the Western U.S. and beyond.

Contact: Michel Bouchedit
Michel.Bouchedid@CH2M.com

Happy New Year, fellow geotechs! 2012 was a busy and productive year for CH2M Hill’s local geotechnical group. We are pleased to announce that Karen Dawson has taken on the role as geotechnical staff manager for the Northwest Transportation Region, which encompasses offices in Corvallis, OR, Portland, OR, Bellevue, WA, and Boise, ID. In 2012, we participated in several technical conferences and authored or co-authored papers for the DFI, GeoCongress, and the ASCE Ports conferences. We provided geotechnical design and construction support services for multiple client-service sectors within CH2M Hill, including the bridge and ports group, environmental services, the water business group, and the construction management group.

We are proud of the completion of several major projects in 2012, including:

- Final design of I-5 from Portland Avenue to the Port of Tacoma road. This project involved replacement of the existing Puyallup River Bridge, geosynthetic walls, extensive ground improvement, settlement monitoring, and a challenging trenchless pipe installation beneath several railways and through a USACE dike.

- Construction of the City of Tacoma Eductor and Ozone facility.

- Construction of the Brightwater WWTP, ASCE Seattle Section Civil Engineering project of the year and an ACEC Gold Award winner.

- Construction management services for the University Link Light Rail project, involving surface instrumentation for 3.15 miles of twin-bored tunnels from UW to Capitol Hill.

- Site exploration and geotechnical design for the Sunnyside Valley Irrigation District (SVID) for the replacement of the Mabton Trestle with a new pipeline, to be constructed by open excavation methods under the Yakima River riverbed.

As we look ahead to 2013, we are continuing to provide services on a few key projects, including:

- Construction support for the M-Street SE Grade Separation project in Auburn, WA, involving soil nail walls, tieback soldier piles walls, near-tangent shaft and anchor-supported railroad bridges.

- Port of Anchorage replacement wharf, site exploration and design.

- Moin Port, Costa Rica, site exploration and design of more than 800 deep piles for a 600-m wharf, seismic slope deformation analyses, and ground improvement.

- Bunker Hill Mining and Metallurgical Superfund Site, Coeur d’Alene Basin, geotechnical consulting for the remedial design for waste consolidation.
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- Sullivan Bridge Replacement Project, Spokane, WA, site exploration and bridge foundation design.

We look forward to another year of challenging projects and contributions to the Seattle geotechnical community. Best wishes for a happy, productive, and safe 2013!

Contact: Dominic Parmantier
dparmantier@condon-johnson.com

Condon-Johnson & Associates Inc. (CJA) is a diversified heavy civil engineering construction company whose core competencies included Drilled Shafts, Micropiles, Auger-Cast Piles, Anchored Earth Retention, and all forms of ground modification (permeation and compaction grouting, stone columns, soil mixing, jet grouting, etc.). Headquartered in Oakland, CA, CJA has four offices (Seattle, Oakland, Los Angeles, and San Diego). CJA undertakes work as both a subcontractor and as a general contractor.

In 2012, the Seattle Office of CJA added four key personnel:

- **Spark Johnston, P.E** brings over 3 decades of career experience in engineering and construction. Spark specializes in all aspects of geotechnical construction including high capacity micropiles, tie-backs, soil nailed walls, grouting, and soldier pile walls.

- **Mark Gundlach** joined CJA as a Field Superintendent. Mark has a myriad of experience with geotechnical construction both in the USA and abroad (including Puerto Rico and Panama).

- **Trevor Morris** recently graduated from Washington State University with a BS in Civil Engineering. Trevor worked for us while he was in school and has since joined us fulltime as a Field Superintendent.

- **Ty Jahn** completed a summer internship with CJA and has joined us fulltime as a Field Engineer. Ty recently completed his MS in Civil Engineering at Montana Tech.

A brief list of the challenging projects CJA completed in 2012 includes:

- **U250.** CJA/Nicholson JV installed a slurry diaphragm wall around the full perimeter of Sound Transit’s University Link light rail station for Traylor Frontier Kemper. CJA was also subcontracted to Hoffman Construction to design, fabricate, and install temporary bracing for the North station excavation; and install drilled shafts; and tangent pile shoring for a pedestrian over-pass.

- **Cushman Dam.** CJA was hired by Tacoma Power to install a water cutoff on the right abutment of Cushman Dam. CJA successfully stopped the seepage with deep cement soil mixing.

- **Sellwood Bridge.** Subcontracted to Slayden/Sundt-Joint Venture, CJA installed forty 6ft diameter drilled shafts for landslide mitigation on the West bank of Willamette River in Portland, Oregon. Twenty six 7-5/8” micropiles were installed to support the temporary detour structure.

- **Airport Way South Viaduct.** To prevent settlement beneath the new MSE approach embankments, CJA was subcontracted by Mowatt Construction to improve the ground via compaction grouting. Due to heaving of nearby utilities, soil mixing was successfully substituted for compaction grouting.

- **Northwestern Lake Bridge.** To provide scour protection of an existing bridge abutment following the demolition of Conduit Dam, CJA installed a 5,360 SF permanent soil nail retaining wall.
- **Mellen Street.** CJA oscillated twelve 8-ft diameter and four 4-ft diameter drilled shafts for widening I-5 freeway in Centralia.

- **Hillsboro Landfill.** CJA successfully performed multi-axis deep cement soil mixing at the existing Hillsboro Landfill to mitigate the potential for liquefaction beneath the landfill berm.

CJA remains committed to best serving its clients and the engineering community. For assistance with costing, budgeting, or conceptual design, please contact the following personnel at **425.988.2150**

Ground Improvement: Dominic Parmantier ([DParmantier@condon-johnson.com](mailto:DParmantier@condon-johnson.com))

Drilled Shafts: Leo Stapleton ([LStapleton@condon-johnson.com](mailto:LStapleton@condon-johnson.com))

Micropiles and High Capacity Anchors: Spark Johnston ([SJohnston@condon-johnson.com](mailto:SJohnston@condon-johnson.com))

Temporary Earth Retention: Ty Jahn ([TJahn@condon-johnson.com](mailto:TJahn@condon-johnson.com)) and Brendan Harkins ([BHarkins@condon-johnson.com](mailto:BHarkins@condon-johnson.com))

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Crux Subsurface, Inc. had a busy and successful 2012, completing a number of challenging exploration and construction projects. It was also a year of expansion for us, with an acquisition and several key positions added.

In January 2012, Crux was acquired by Quanta Services (NYSE: PWR). Quanta is an S&P 500 company and a leader in infrastructure services for the electric power, pipeline and telecommunications industries. The company has a significant presence in the electric transmission and distribution industry, a market in which Crux has become heavily involved over recent years, and we believe this partnership will provide immense opportunity to our employees, investors and clients. We will continue to operate under the Crux name and with direct oversight from the existing management team, but with additional resources. We are excited to see how the combination of our unique capabilities and Quanta’s financial strength will allow us to better serve our clients in the future.

Operating demands have also created growth, leading to several new hires and internal promotions. The most notable of these include **Steve Davidow**, Vice President of Engineering, and **Paul Rodriguez**, Project Controls. Steve Davidow comes to us after a 12 year career at DCI Engineers, where he frequently served as the Engineer of Record for Crux and supported us in many of our structural engineering needs. Paul Rodriguez previously worked with Northwest Cascade and brings a wealth of experience to the company. He will team with newly promoted **Karen Dawe** to oversee all aspects of Project Controls.

Crux completed a number of key projects in 2012, one of the most notable being the Sunrise Powerlink. We provided all micropile foundation design and construction work for the 117-mile transmission line, accounting for more than half of the total foundations along the alignment. Sunrise presented a number of unique challenges throughout construction and was named **ENR California’s Best Civil Works/Infrastructure Project for 2012**.

Other projects completed in 2012 include:

- **Rhinedollar Distribution Line** – Inyo National Forest, CA
Crux is currently working on two large-scale transmission projects in southern California; Devers-Palo Verde No. 2 and Tehachapi Renewable Transmission Project (TRTP) Segment 6. Both projects began late in 2012 and are expected to be completed in 2013.

Contact: Robert Carnevale
rcarnevale@dbmcm.com

Happy New Year to all! It is that time of year again when we reflect on the past year and turn our attention forward and jump into another new year. DBM Contractors, Inc. would like to thank all of its project partners from last year and extend a hearty “Best Wishes” to all as we embark on the New Year.

We covered some ground in 2012…our projects took us up and down the west coast up to Seward Highway in Alaska, and all the way down to San Diego to help stabilize the coastal bluff beneath the Chancellor’s House at UC San Diego; over to Wyoming to install micropiles to help stabilize the Double Nickel Slide, and stopped in Colorado on the way back to install some permanent ground anchors at Telluride, and off to warm up in Nevada at River Palms Casino to repair an ailing bulkhead wall. We played in the mud at University Village, tried to help stop mud and debris flowing at Howard Hanson Dam, down to Port of Newport, OR for more anchor work at the terminal bulkhead, stopped by Willamette River Bridge in Eugene, OR to drill some more bridge foundations, got out of Duck country and headed to Husky Stadium to help with the new renovation, headed up to Snoqualmie Pass to drill lots of soil nails and anchors until the snow sent us back to the low lands where we drilled a bunch of micropiles to help hold up the old Western Building, and ended up close to home at Stadium Way Arterial Project in Tacoma, WA where we are improving the ground and retaining the earth so the City can rebuild its busy road. Phew…like I said, we covered a lot of ground…

In the New Year you will see us continuing at Stadium Way Arterial in Tacoma, WA; resuming work at Snoqualmie Pass when the winter gives way to Spring, in La Jolla, CA stabilizing slopes at NOAA; in Bellevue, WA at the I-405 design/build segment to Bothell; working in downtown Seattle, WA again at 2030 8th Ave. and 400 Fairview; and heading a little more east than usual to put some anchors in the ground in for the USACE in Omaha, NE; as well as a host of other foundation and earth retention projects throughout the Pacific Northwest and West.

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E3RA

Contact: Mark Rohrbach
mrohrbach@e3ra.com

E3RA is a geotechnical and environmental engineering small business with offices in Tacoma, Everett and Vancouver, WA. In addition to our strong traditional geotechnical engineering practice we offer specialized services including structural retaining wall design (including MSE walls, sheet pile walls, soldier pile wall, soil nail walls, and a variety of hybrid wall systems), structural foundation design (shallow spread footings, aggregate piers, micro-piles, drilled shafts, driven piles, etc.), and design of ground improvement strategies (grouting, stone columns, etc.). Dean White, based in Everett, is E3RA’s senior managing principal engineer. Despite the difficulties that persist in some economic sectors E3RA added Dr. Rick Thrall and Mr. Mark Rohrbach to our staff. Dr. Thrall has more than 20 years of geotechnical engineering experience and now manages our Vancouver office. Mr. Rohrbach has 13 years of geotechnical and geo-structural design experience and adds Crosshole Sonic Logging (CSL) to the E3RA’s list of specially services.

Geo-Instruments

Contact: Pierre Gouvin
pierre@geo-instruments.com

Geo-Instruments had a successful 2012 with many interesting projects in the North West as well as throughout the US and Canada. We provided instrumentation, installation and monitoring services for the Sound Transit U-link project, the King County Ballard Siphon project, Washington DOT I-90 Snoqualmie Pass rock slope monitoring, and the Washington DOT Portland Avenue project, and the Transbay Transit Center in San Francisco. We look forward to new and challenging projects in 2013.

Established in 2003, Geo-Instruments specializes in assisting geotechnical and civil engineers to monitor any movement in structures and in the earth. We manufacture and supply sensors and systems to measure movement, pressure, vibration and other environmental changes in structures, soil, and rock. Our systems are designed to monitor naturally occurring movement, such as landslides and flooding, as well as movement resulting from man-made events like blasting, excavations, dewatering, drilling, tunneling, and ground improvement operations. Keeping costs low, providing accurate and precise data and delivering it to our customer in real time are our highest priorities. Geo-Instruments produces a variety of unique data acquisition systems designed to collect data from remote and hard to access locations. The systems are available for short and long term use, and even permanent installations.

Geo-Instruments employs a team which draws from a broad spectrum of experience in Geotechnical Instrumentation, Information Technology, Construction and Engineering fields. We thrive on innovation, and challenging projects stimulate our drive to meet the monitoring and measuring goals of our clients. We have developed alliances with software manufacturing and engineering companies, as well as other instrumentation providers to provide an unparalleled level of service and a large range of products to our customers.

Geo-Instruments not only provide you with the sensors to monitor your site, but can also collect the data and upload it to one of our many data processing applications. Our most popular program, ARGUS, uploads your data to a website for you to access instantly and at your convenience from anywhere with an internet connection. ARGUS Monitoring Software is also highly customizable in that it can create graphs, generate reports, and issue email alerts if a sensor's value exceeds a client's defined alarm threshold. Geo-Instruments will work with your team of engineers to make sure that you are getting a system perfectly suited to your needs and expectations. We have an excellent track record for
customer service, and it is our goal to make sure you get what you need, no matter what. You can rest assured knowing that Geo is on the job.

GeoEngineers

Contact: Bob Metcalfe
rmetcalfe@geoengineers.com

Business was brisk for GeoEngineers in 2012 and 2013 is off to a strong start. Engineering News-Record ranked GeoEngineers 196th in the top 500 U.S. design firms for 2012, a significant step up from our 2011 ranking of 219th.

2012 Project Highlights

GeoEngineers’ staff engaged in challenging and diverse projects in the Puget Sound region in 2012. Notable projects involved:

- Continuing work with the Kiewit-General-Manson design-build team on the WSDOT/SR 520 Evergreen Point Floating Bridge and Landings Design-Build Project (Seattle, WA).
- Completion of the I-405 Bellevue Braids Design-Build Project (Bellevue, WA) with Atkinson Construction and Jacobs Engineering.
- Continuing work by the Tacoma office geotechnical group in the development and transportation markets, including a variety of projects in the Port of Tacoma area that will continue through 2013.

Award-Winning Projects

We are proud to have played a role in several projects that were honored with awards in 2012:

- The City of Redmond NE 36th Street/SR 520 Bridge Overpass and Roundabout Project won the National American Public Works Association (APWA) Project of the Year Award for transportation projects in the $25- to $75-million category.
- The City of Tukwila Urban Center Access /Klickitat Project (Tukwila, WA) won the APWA Regional Award for transportation projects in the $5- to $25-million category.
- The American Society of Civil Engineers (ASCE) Region 8 honored the Tonquin Avenue Bridge Project (Ocean Shores, WA) with the Minor Project of the Year Award.
- The Western Dredging Association (WEDA) recognized the Port of Anacortes with the 2012 WEDA Environmental Excellence Award for its Port of Anacortes Environmental Remediation Project at the former Scott Paper Mill (Anacortes, WA).

Award-Winning People

Our geotechnical staff received public recognition and the busy year meant several new hires and promotions in GeoEngineers’ Seattle, Redmond, Bellingham and Tacoma offices during 2012:

- Eric Heller (Tacoma) was tapped by the Business Examiner Media Group for its 40 Under Forty Program class of 2012.
• NW Geotechnical Group Leader Shaun Stauffer (Redmond) and David Phelps (Tacoma) were promoted to Principal. Others enjoying promotions were Amanda Fickeisen (Bellingham); Daniel Ciani, Heidi Disla, Lindsay Flangas, Sean Johnson and Whitney Trent (Seattle/Redmond); and Morgan McArthur and Lyle Stone (Tacoma).

• Joining GeoEngineers were Cody Gibson, Hamilton Puangnak and Zachary Simpson (Redmond); and Erik Ventura and Brett Larabee (Tacoma).

To learn more about our award-winning people and projects, please visit GeoEngineers.com.

Contact: David Van Thiel
dvanthiel@geopiernorthwest.com

2012 was a year of continued growth and expansion of services for Geopier Northwest, Inc. We were fortunate in this challenging business environment to be included on many teams where we could offer value added ground improvement solutions for issues ranging from organic soils to undocumented and contaminated fills to liquefaction induced settlements. Our continued growth is a direct result of geotechnical engineers thinking outside of “the box” in order to come up with innovative and cost effective solutions for their clients. A special thank you goes out to the following geotechnical firms that included us on their projects: AMEC Earth & Environmental, Associated Earth Sciences, Geocon Northwest, GeoEngineers, GeoTest Services, Hart Crowser, Hayre McElroy & Associates, Lachel & Associates, PanGEO, PSI, Shannon & Wilson, Strata, Terra Associates, Terracon, and URS.

Our growth has been driven by continued increasing awareness of seismic performance of structures and liquefaction hazard by owners. Many of our projects in 2012 included some form of liquefaction mitigation. The patented Geopier-Impact™ and Geopier-Rampact™ displacement systems are perfectly suited to mitigate hazards and provide foundation support by installing stiff Geopier® elements to depths of up to 40 ft. beneath the water table while creating no spoils and not utilizing any air or water jetting during installation!

We are looking forward to teaming with old and new professionals in 2013. We recently acquired Slope Reinforcement Technology, Inc. (SRT™). SRT offers the patented Plate Pile™ method for slope reinforcement and repair, which provides slope stabilization using an array of steel or aluminum elements driven into the slope in a staggered array of uniformly spaced rows. The Plate Pile method is particularly well-suited to rapidly and economically stabilize shallow slides that occur on existing slopes.

Cheers to 2012 and we are excited about 2013! If you would like to discuss potential projects or schedule a Geopier seminar please contact David Van Thiel, P.E., G.E., at dvanthiel@geopiernorthwest.com or (425)646-2995.
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Golder Associates Inc. (Golder) enjoyed a successful and productive year in 2012 with continued growth and interesting projects. Our success and quality reputation enables Golder to again be ranked by *Engineering News Record* as one of the top engineering and environmental firms in the nation.

Golder’s land development services group has seen increased client activity in urban and rural site development. We are also seeing increased activity in commercial development. Our master plan development work picked up in 2012 with construction planned for 2013. We are well positioned to take advantage of this sustained upturn in the market and will be looking to add staff in 2013.

Golder continues to stay busy with our support of public and private infrastructure projects. We are a team member on the Sound Transit East Link project. We are also working on water, wastewater, and transportation projects.

Golder’s Redmond office is actively supporting pipeline clients in the Northwest and throughout North America in route planning, trenchless crossing designs, and geohazard assessments. Golder’s staff are known for their innovative use of technology and approach to landslide hazard assessment.

Due to Golder’s global footprint, our Pacific Northwest staff have opportunities to support other Golder offices on interesting projects throughout the world. In addition to mines in the U.S., the Redmond office works on mines located in South America, Canada, Asia, Europe, and other exotic locations which provide stimulating travel and career building experience for our staff. We are also providing staff for engineering and geologic support on large infrastructure projects in Australia and Canada.

**People**

Golder has experienced steady growth in the number of people we employ and our technical capabilities. Our global staff has grown to over 9,000 employees. In 2012, Golder’s U.S. staff increased from 1,372 to 1,470. Within Golder’s Pacific Northwest Operation, we have added 32 new staff members including geotechnical engineers *Steve Pause* and *Reda Mikhail*. Reda has over 20 years of experience, including 15 years working on major projects in the Puget Sound area. Our Portland office added three geotechnical engineers: *Brian Willman*, *Lorra Duevel*, and *Chris Raeburn*.

We look forward to 2013 and plan to continue building strong relationships with our industry colleagues, providing professional opportunities for our staff, and experiencing company growth both globally and locally. For more information on our exciting projects and Golder job openings visit [www.golder.com](http://www.golder.com).

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Contact: Doug Lindquist

**HARTCROWSER**  
Doug.Lindquist@harcrowser.com

2012 was another year of expansion for Hart Crowser with major new project work and a growing staff. Hart Crowser’s diverse national and international client base presented opportunities to grow our traditional service areas as well as expand into new markets.
We continue to work on high-profile projects in challenging environments throughout the Puget Sound region and worldwide. Select project profiles are on our website (www.hartcrowser.com). Some highlights from 2012 include:

- SR99 Bored Tunnel Design-Build (largest diameter bored tunnel in the world)
- SR520 Floating Bridge Design-Build (longest floating bridge in the world)
- Sound Transit South Link
- Husky Stadium Redevelopment
- NBA/NHL Seattle Arena
- Children’s Hospital
- Insignia 40-Story Residential Tower, Seattle
- 2030 Eighth Avenue 42-Story Residential Tower, Seattle
- Holden Mine Site Cleanup (US Forest Service)
- Van Stone Mine Tailings Pile Evaluation and Rock Slope Stability, Colville
- Explosives Handling Wharf 2: Naval Base Kitsap-Bangor
- Pier 4 Reconfiguration: Port of Tacoma
- King County Water and Land Resource Division Geotechnical On-Call
- WSDOT Geotechnical On-Call
- Port of Seattle Geotechnical On-Call
- Governor’s Island Park and Public Space Project, New York
- Chaglla Hydroelectric Project: Rock Slope Stability, Peru
- Costco Warehouse Stores in Japan and Taiwan

We added two geotechnical engineers in 2012: Brenton Cook joined the Seattle office and Max Gummer joined our Portland office. Also, we expanded into Alaska with a new Anchorage office in 2012.

2013 promises to be an exciting year. In addition to a strong work backlog, we look forward to new opportunities in design and construction support, continued growth, and expansion into new areas.

Hart Crowser is a 110-person, employee-owned consulting firm headquartered in Seattle with offices in Edmonds, Vancouver (Washington), Portland, and Anchorage. The firm specializes in geotechnical and environmental engineering, natural resources, and environmental assessment and remediation.

Contact: Andy Anderson

AA Anderson@HaywardBaker.com

Hayward Baker Inc. (HB) continues to provide a full range of specialty geotechnical construction services based out of its Seattle offices. Joining the Vancouver Office is the new Edmonton office and together these two locations now operate as Hayward Baker Canada, Ltd. as the company’s expansion into western Canada continues. Wick Drain and Earthquake Drain design and installation services have also been added. Mark Koelling now takes on Keller Group responsibilities down-under, while Mike Blanding heads up a Regional Special Projects Division also recently formed. In addition, the following Management/Engineering personnel can be contacted for any questions/needs that arise: Adam Gerondale, Justin Sharman, Andrew Malinak, Claude Berard, Jon Bussiere and Andy Anderson.
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**Contact: Andrew W. Berg**

dberg@holocenedrillinginc.com

**Puyallup, WA:** Holocene Drilling, Inc. (HDI) had another great year in 2012. In May, we participated in the 2012 ASCE Spring Seminar and Trade Show. In September, HDI launched its new website which now includes online submission forms for start cards and estimates. These features are a direct result of great input and suggestions from clients to the job estimating, set-up, and scheduling process at HDI. In October, we completed the major acquisition of several probe rigs and licensed operators, adding Direct Push Drilling to our list of service offerings.

We continued work on major area projects including Sound Transit’s 200th Street Extension, SR 520 Bridge East Landing, and Seattle Fairview Avenue Bridge. Several of these projects also had offshore components (drilling from barge platforms), including work at the Seattle Fairview Avenue Bridge, SR 520 Bridge East Landing, and Manchester Fuel Depot.

HDI’s Construction Dewatering business now includes the installation of Submersible Pump Systems. Our Turnkey Construction Dewatering Systems include full-service Vacuum Wellpoint Pumping System Installation, Development, Operation, and Maintenance. We also offer Wellpoint Jetting and Drilling Services. Our clients include area Hydrogeologists, Engineers, and Geologists who provide dewatering system consulting and design services. We also support area General Contractors by filling a dewatering service gap in this niche market.

Jay Graham, President, oversees HDI’s Dewatering Operations and is a Technical Advisory Group (TAG) member for DOE. Clay Griffith, Vice President, oversees HDI’s Geotechnical and Environmental Operations. Donna Thrall, Project Coordinator, supports Administrative Operations. Her cheerful attitude, client service, and attention to project detail contribute to HDI’s success.

We are proud both our OSHA and WA L&I Ratings reflect zero (0) accidents for the past three years. HDI crews recently completed their HAZWOPER 40+8 Refreshers and we have upgraded our insurance requirements and safety programs to exceed industry standards.

We are grateful for your continued confidence and trust in our abilities. We are committed to continuing to offer you superior drilling solutions. We wish you a successful 2013 and look forward to offering you the same level of Safety, Innovation, Excellence, and Value on all of your projects in 2013.

2012 was a productive year for HWA GeoSciences Inc. We hired Tori Hesedahl, EIT, a 2012 University of Washington graduate as a Geotechnical Engineer I, and Stephen Barrie to replace Tony Martin who retired as Construction Inspection Services Manager in July. Tom Kinney continues to ease into retirement, working on projects whenever his expertise is needed. When Tom is not working, he and his wife Joan, spend much of their time traveling to many corners of the world.

HWA’s geotechnical, environmental, lab and inspection groups have continued to be involved with the City of Bothell’s projects to improve traffic, clean up, redevelop and revitalize the City’s downtown corridor. Project Manager Arnie Sugar led the effort, with assistance from JoLyn Gillie, Tori Hesedahl, and Vance Atkins.

The pavement group including George Minassian and Bryan Hawkins stayed busy with the Falling Weight Deflectometer (FWD), pavement design and construction inspection throughout the year on both sides of the mountains. HWA continues to advocate non-destructive FWD testing for pavement and subgrade evaluation.

HWA’s embassy work under the direction of Ralph Boirum has continued, in Kabul, Afghanistan this time. Since construction of the new embassy began mid 2012, Bryan Hawkins has made one site visit and Ralph has made several trips to the site to perform geotechnical observations. Ralph returned from his most recent venture to Afghanistan, January 9, 2013.

One of our most interesting projects is the ongoing Fairview Avenue Bridge Replacement project. HWA’s project team, lead by Project Manager, Donald Huling, has completed extensive geotechnical engineering analyses to support the design team in TS&L (type, size and location) evaluation of replacement/rehabilitation alternatives. JoLyn Gillie, Tori Hesedahl and Bryan Hawkins have all been involved on this fascinating, high-profile project.
move towards completion of the Brightwater Conveyance System, with the completion of all four conveyance tunnels and the start of effluent flow. Additionally, Jacobs Associates provided design and CM on the Iron Horse Tunnel 50, the rehabilitation of a historic rail tunnel into a multi-use pedestrian and bike pathway near Snoqualmie Pass.

Jacobs Associates continued to provide CM services to the Ballard Siphon Replacement Project which saw the first use in North America of the vertical shaft method for shaft construction. Furthermore we continued to provide CM services to WSDOT on the Alaska Way Viaduct Replacement tunnel project which will include the world’s largest soft ground tunnel boring machine. Our firm also moved up from #35 to #23 in the Top 50 Trenchless Firms of 2012 by *Trenchless Technology Magazine*.

Recent wins in the region included the $1.4 billion, 6.8-mile-long Translink Evergreen light rail design-build project in Vancouver BC where we are providing design and construction support for the 1.2 mile tunnel portion.

We congratulated Sam Swartz, PE, an associate in the Seattle office, who won the annual James Walton Award that recognizes the accomplishments and contributions made by Jacobs Associates employees who share the traits that made James Walton an “engineer’s engineer” – innovative, hardworking, practical, and meticulous.

Jacobs Associates also promoted Isabelle Lamb, LG; Gregg Davidson, PE; CEng, Dan Dobbels, PE; and Mark Havekost, PE to the position of Principal. Each brings a wide range of experience on a diverse number of underground design and construction projects. Ms. Lamb and Mr. Davidson are based out of Seattle while Mr. Havekost is located in our Portland office.

Contact: Marcus Byers
mbyers@kleinfelder.com

In February Kleinfelder culminated its 50th Anniversary celebration at the annual company technical seminar in Denver. Over 1,000 Kleinfelder employee-owners were in attendance to celebrate and enjoy stories from retired company founder Jim Kleinfelder. 2012 was a year of continued growth in the US and abroad. Locally, we were very pleased to add some outstanding talent to our team.

Erik Andersen joined us in May 2012 and brings great energy and enthusiasm to the group. In addition to mentoring junior staff, Erik is providing support on projects and pursuits in the Western US and Canada.

Chris Leibli joined us in July 2012 after completing his Master’s in Geological Engineering from Colorado School of Mines. Chris brings over six years of experience in geotechnical engineering consulting and a passion for landslide hazard analysis and mitigation, rock slope engineering, and geologic site characterization.

Tristan Anderson also joined us in July 2012 after completing his Master’s in Geotechnical Engineering from University of Washington. Tristan has been busy providing geotechnical construction support at 101 Taylor and design support for other local urban infill projects.

David Cotton continued his legacy of supporting Costco Wholesale in Asia and continues leading design build transportation projects in the NW and nationally.

Steven Flowers supported a wide variety of commercial development and infrastructure projects in
Washington and Canada.

**Jason Washburn** worked on various projects as a Geotechnical Engineer and field manager until June, at which time he took on the role of Assistant Quality Control Manager at the Snoqualmie Falls Redevelopment Project.

In July, **Kami Deputy** took a new opportunity within Kleinfelder in Denver, Colorado, where she is assisting with numerous projects including soil and rock logging, and geologic mapping for a dam modification project.

**Chad Lukkarila** was selected to join Kleinfelder’s Principal Professionals Group for his expertise in Rock Engineering and continues to work on projects and pursuits across the US and abroad.

**Richard Luark** remains busy providing retaining wall and shoring designs for projects across the country, as well as urban infill projects in Puget Sound.

**Marcus Byers** led geotechnical engineering work on several local municipal projects as well as commercial developments in Surrey BC and St. Albert AB, and recently started work on a fertilizer plant in Strachan, AB.

**Hyungsuk Shin** continues to be a company-wide go to expert for seismic hazard analyses and enjoyed working on projects in Washington, California, Texas, Alberta and Asia.

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**Contact: Dennis Stettler**

dstettler@landauinc.com

**Landau Associates** completed another successful year and celebrated our 30th Anniversary. We continue supporting a number of our long-term clients with on-call geotechnical services, including WSDOT, Washington Fish and Wildlife, the cities of Seattle, Tacoma, Bellevue, Olympia, and Edmonds, the counties of Snohomish, Pierce, and Chelan, and several of our private and industrial clients, in addition to projects for various architecture and engineering firms.

**Dennis Stettler, P.E.,** a Principal, continues his role as Director of Engineering. He has been involved with projects for WSDOT, Washington State Ferries, Seattle Public Utilities, and design-build project pursuits for major transportation and infrastructure projects.

**Ed Heavey, P.E.,** a Principal, continued working on a variety of projects for clients including the City of Tacoma, Snohomish County PUD and Pierce County.

**Steve Wright, P.E.,** was promoted to Principal. He continued working on infrastructure improvement projects for numerous local agencies, including the counties of King, Snohomish and Kitsap; the Port of Everett; and the cities of Lynnwood, Mountlake Terrace, Quincy and Port Angeles.

**Dave Pischer, P.E.,** was promoted to Principal. He is working on site redevelopment and environmental remediation projects for ports, municipalities, and industrial clients.

**Kent Wiken, P.E.** a Senior Associate, provided environmental cleanup and geotechnical engineering services for various public and private sector clients including the Port of Everett, Bremerton Housing Authority and Puget Sound Energy.

**Brian Bennetts, P.E.,** was promoted to Senior Engineer. He continued to work on a variety of infra-
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**Chad McMullen, P.E.** a Senior Project Engineer, worked on numerous projects for clients such as Douglas County PUD, Seattle Public Utilities and the Seattle Housing Authority.

**M. Birkan Bayrak, Ph.D., P.E.** was promoted to Senior Project Engineer and also received his California Professional Engineer license. He continued to work on transportation, waterfront and site development projects for WSDOT, Washington State Ferries and Ports.

**Dana Olcott, P.E.,** a Senior Project Engineer, worked on numerous geotechnical investigations, foundation/earthwork design, and construction monitoring projects.

**Josh Elliott, P.E.,** was promoted to Project Engineer. His experience includes geotechnical design and field investigations for clients including Pierce County and the City of Tacoma.

We continue to be committed to providing our clients with superior service and are excited about the future. We encourage you to contact us in our Edmonds, Tacoma, Seattle, Spokane, Tri-Cities or Portland offices and visit our website at [www.landauinc.com](http://www.landauinc.com).

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**MAGNUS PACIFIC**

Contact: John Bickford  
jbickford@magnuspacific.com

Magnus Pacific Corporation ([www.magnuspacific.com](http://www.magnuspacific.com)) is a full-service environmental and geotechnical construction company. Magnus Pacific was founded in December 2008 and is headquartered near Sacramento, California. Since our inception, we have pursued and successfully completed numerous projects in the Pacific Northwest. In 2011, one of our founders, Jeremy McKnight (jmcknight@magnuspacific.com), moved to the Seattle area and opened a regional office in Everett to better support our existing Pacific Northwest clients and to pursue new opportunities.

Magnus Pacific specializes in four distinct business practices:

- **Environmental Remediation** (e.g. Hazardous Waste Remediation, Soil & Groundwater Treatment, In-situ and Ex-situ Soil Stabilization (ISS and ESS), etc.)
- **Geotechnical Construction** (e.g. Slurry Cutoff Walls, Deep Soil-Mixed (DSM) Cutoff Walls, Soil Stabilization & Ground Improvement, etc.)
- **Demolition** (Hazardous Materials Abatement, Engineered Drop Plans, Asset Recovery & Salvage, Industrial Demolition, Site Remediation & Restoration, etc.)
- **Specialty Civil Construction** (e.g. Shoreline Improvements, Flood Control Structures, Levee Rehabilitation & Repair, Stream & Wetland Restoration, etc.)

Some of the regional projects Magnus Pacific has completed include:

- **Castle Rock Slag-Cement Bentonite Wall, Castle Rock, WA** (65,000 square feet of slag-cement-bentonite cutoff wall to improve the Castle Rock Levee along the Cowlitz River for the USACE Portland District Office.)
- **Union Slough Habitat Restoration, Everett, WA** (demolition of bridges over tidal tributaries of Union Slough and removal of remnant levee and foundation materials to elevation – 2 MLLW during narrow in-water windows at night.)
- **Malheur Lake Caspian Tern Island, Burns, OR** (construction of a one-acre rock and sand island in southeast Oregon’s Malheur Lake for the USACE. The island was constructed in 4-foot
lifts consisting of geo-grid, geotextile fabric and four different types of fill material. Project required construction of site access and barging material.)

- **Holden Mine, Chelan, WA** (remediation of a former copper mine on the upper reaches of Lake Chelan. Some of the project’s scope includes demolition of remaining mine structures, re-capping and regarding of mine tailings, re-routing and re-construction of existing stream adjacent to tailings, soil stabilization, and installation of a slurry cutoff wall all conducted in a remote location.)

In May 2012, **John Bickford, P.E.** was hired as a Project Director to oversee projects in this region and to work with Jeremy to “spread the word” regarding Magnus Pacific. Both Jeremy and John are available to meet with your company and provide a “Brown Bag Presentation” regarding Magnus Pacific’s performance and capabilities. Finally, Magnus Pacific is always looking for talented and motivated personnel to work in an energetic, vibrant, and rapidly growing company. Please contact us for further information.

Contact: Al Rasband
arasband@malcolmdrilling.com

Malcolm Drilling has, for more than fifty years, been an innovator and leader in the deep foundation industry. Our list of core services as it relates to geotechnical construction include drilled shafts, micropiles, excavation support systems, cutoff and secant pile walls, chemical grouting, jet grouting, deep soil mixing, Cutter Soil Mixing, underpinning, and dewatering. These combined services have been applied on numerous complex and technically challenging projects throughout North America for various applications. Similarly, Malcolm Drilling’s ever-growing Dewatering and Ground Improvement Divisions have been instrumental in keeping Malcolm the most sought-after, full service geotechnical contractor.

Based in San Francisco, California, with offices throughout the western United States and Panama, Malcolm has expanded to the eastern seaboard with an office in Florida, and is actively pursuing work throughout the US and Canada. Malcolm’s fleet of equipment has also grown from a single truck-mounted drill rig, to the most extensive fleet of state-of-the-art drilling equipment in the United States, valued at over one hundred million dollars. Our fleet includes low overhead and limited access equipment capable of passing through interior doorways, to equipment capable of excavating shafts up to 18 feet in diameter and up to 300 feet deep. Recent equipment acquisitions include the world’s largest casing oscillator (3.8m OD), a 3.3m OD casing oscillator, and two Bauer BG-50 top-drive drills (the world’s largest top-drive crawler drill).

Some of our notable recent projects completed or acquired include:

- **Howard Hanson Dam Drainage Tunnel Improvements**, Ravensdale, WA – Vertical and Horizontal Drains, Dewatering Wells, Piezometers, Chemical Grouting.
- **Willamette River Bridge**, Portland, OR – Drilled Shafts
- **I-90 Widening – Snow Shed Phase 1C** – Snoqualmie Pass, WA – Drilled Shafts.
- **Nalley Valley Interchange (Eastbound)**, Tacoma, WA – Drilled Shafts and Soil Nails.
- **NE 134th Interchange**, Vancouver, WA – Drilled Shafts and Soil-Mixing.
Malcolm continues to advance geotechnical construction through active participation in ADSC, DFI, Geo Institute and ASCE. For assistance with costing, budgeting or conceptual design, please contact Al Rasband (arasband@malcolmdrilling.com), for Ground Improvement contact Rick Hanke (rhanke@malcolmdrilling.com), and for Construction Dewatering contact John Starcevich (jstarcevich@malcolmdrilling.com). For a complete list of our services and contact details please visit our newly updated website (www.malcolmdrilling.com).

Contact: Joe Clare
Joseph.B.Clare@us.mwhglobal.com

MWH Americas, Inc. has been busy in 2012 and is looking forward to 2013. Our Bellevue, Portland, and Anchorage offices have been busy on hydropower upgrades, dams, tunnels, and water/wastewater facilities here and around the world. Some key projects are:

As part of international consortium Grupo Unidos Por el Canal (GUPC), MWH is the lead designer of the new Post-Panamax navigation locks for the Third Set of Locks project of the Panama Canal Expansion. The $3.12 billion Third Set of Locks project will be completed in 2014 – coinciding with the 100-year anniversary of the opening of the original Canal. Locally, Mike Bruen and Paul Richards are working on the project.

The MWH-Jacobs Associates, Joint Venture continued to provide support to King County during the construction phase of the Brightwater Conveyance project. We’d like to congratulate the project team and King County for a successful completion of the tunnel conveyance system in 2012. Joe Clare is the PM for the JV with Jay Cooke and John Giaudrone, Jacobs Associates the segment leads for the Central and BT3C Contracts, respectively.

For Grant County Public Utility District (District), MWH is continuing with Post-Earthquake deformation analyses of the earthen embankment portions of Priest Rapids and Wanapum Dams. MWH is also participating with the District in early trials of FERC’s Risk Informed Decision Making process for dam safety for the gates at Wanapum Dam and the Priest Rapids Dam embankment. Greg Rollins is the PM and Maddie Heidari, Mike Morgan, Munit Bector and David Johnson are primary technical resources for this work.

Operational since 2011, but completed at the end of 2012 is the MWH-designed Madison Valley NW Diversion and Washington Park Stormwater Storage project for Seattle Public Utilities. Mark Graham is the PM with support from Joe Clare, Ali Leeds, Mike Bruen, Tom Finnegan, Andy Frisk, and Dusit Roongsang.

MWH is also very busy with the geotechnical investigations, seismic hazard analysis and evaluation of dam alternatives for the FERC licensing and preliminary design of the Susitna-Watana Hydroelectric Project that is being developed by the Alaska Energy Authority. With a proposed 700 foot high dam and 600 MW power plant this project will supply clean, renewable energy for the major Railbelt utilities for next 100 years or more. A number of staff are involved including Howard Lee, Brian Sadden, Aled Hughes, Mike Bruen, Paul Richards Kirby Gilbert, and Rey Hokenson.

For King County, MWH is designing the replacement to the existing sewer siphon tunnel/pipelines in Fremont and also performing design for upgrades to the Sunset & Heathfield pump stations and associated forcemains. The current alternatives analysis also includes evaluation of a bored pipeline between Issaquah and Bellevue for additional wastewater storage and conveyance. Joe Clare is the PM for Fremont Siphon and Jeff Schmidt is the PM for Sunset- Heathfield pump stations.

In British Columbia, MWH is performing the investigations and seismic retrofit for the Ruskin Hydro-
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power Facility for B.C. Hydro. **Mike Morgan, Dave Thompson, Greg Rollins, and Stan Hayes** are involved.

MWH wishes everyone in the geotechnical community a Happy New Year and prosperous 2013. For career opportunities see [www.mwhglobal.com](http://www.mwhglobal.com) and contact our local office for teaming opportunities.

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**Contact: Scott Palmer**

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2012 was an exciting year for PSI’s Northwest geotechnical group as we experienced increased project activity serving both our national accounts and local client network from our Mountlake Terrace, Tacoma, and Portland offices. Our talented team of engineers worked on multiple high-profile energy sector and public infrastructure projects as well as numerous local commercial projects for our national clients.

PSI welcomed **Mr. Scott A. Palmer, PE** as our Vice President for Washington operations. Scott has over 14 years of geotechnical consulting experience in support of dam and levee, hydro-power, mining, marina, commercial site development, and landslide projects in Washington, California, and Colorado. **Mr. Britton W. Gentry, PE, GE** continued to provide geotechnical leadership as PSI’s Principal Consultant for projects throughout the Western US. Britt has nearly 20 years of geotechnical consulting experience with particular expertise in site specific seismic hazard studies for structures, dams, industrial facilities, water treatment plants, electric substations, and transmission towers.

PSI’s laboratories in the Northwest are experiencing substantial growth as we celebrate our recent WSDOT laboratory certification. We have made significant investments in our lab facilities this year as we continue to provide environmental and materials testing service to local clients as well as National Clients in support of their regional expansion.

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**Contact: Randy Sheets**

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Robbins and Company would like to thank everyone who has helped us in our continuing accomplishments. We enjoyed a very prosperous year in 2012, becoming our 61st year leading a successful business.

In addition to our growth within the company, we have also added GEO Group Northwest to our support team of engineers, which included Otto Rosenau & Associates and Bergquist Engineering Services. We are happy to report that more foundation jobs were permitted in 2012 than in the previous years. With the expansion of ECA (Environmentally Critical Areas) in greater Seattle, we hit the road recruiting additional Geotechnical support to assist in the permitting process. Geotechnical reports providing SPT (Standard Penetration Test) and soil borings are critical for the permitting process; therefore they have become a big provider to our growing accomplishments.

Another big accomplishment in 2012 for Robbins and Company was the completion of all licensing and bonding requirements to extend our services into Oregon State. With the widespread use of internet along with our extensive commercial advertising, foundation repair service leads have been pouring in. This year we will be focusing on the southern expansion, as well as east of the Cascades.
With the industries constant change, we like to stay on top of what the public is seeking; always researching new products and procedures, giving us a leading edge in the foundation industry. Our foundation contractor projects include complete foundation repair or replacement, hillside stabilization, pin piling, floor leveling, earthquake retrofitting, and drainage installation.

Robbins and Company push pier system continues to provide us with great performance and ease of installation. Since its inception in 2004, we have pushed over 40 miles of pier, meeting approved bearing capacity without failure.

In 2012, we introduced the “Sturdy Jack”, a new product to our line of home and foundation repair products. The Sturdy Jack is the only fully adjustable 60,000lb column support that meets Washington State’s code for uplift.

We have the experience to determine the best solution for each job along with innovative ideas for ground-breaking results per individual projects, and are proud of the fact that a large percentage of our work is a direct result of customer referrals. Whether it’s a customer wanting more headroom in a basement, a foundation raised and leveled, or a complete foundation replacement, Robbins and Company has the certified trained personnel and equipment to complete the job in the most cost effective and efficient way.

Contact: Stan Boyle
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Shannon & Wilson had a successful 2012 filled with challenging projects; new hires, and steady growth.

Our staff continued work on the region’s most visible projects: City of Seattle’s Seawall Replacement Project and SR 520 Bridge Replacement and HOV program. Other key projects include Sound Transit’s East Link, North Link and D to M Street Projects, and numerous infrastructure and expansion projects at Joint Base Lewis McChord.

Shannon & Wilson completed several key projects this year, including The Port Mann Bridge in British Columbia, and Fisher Slough Tidal Marsh Restoration in Skagit County, and Howard Hanson Dam Drainage Tunnel Improvements, as well as, the Assessment of Geologic Conditions in the Right Abutment.

Shannon & Wilson’s staff are one of the main reasons for our success. This past year we welcomed the following new talent: Water Resources Engineer: Allison MacEwan; and Geotechnical Engineer: Andrew Tangsombatvisit.

Shannon & Wilson won the ACEC Engineering Excellence Best in State Silver Award for Exceeding Client Expectations for the SR 532 Corridor Improvements, Camano Island to Interstate 5 for WSDOT.

Working in the public and the private sector, Shannon & Wilson provides geotechnical, environmental, and natural resources services for the design and construction of transportation, waterfront, and military facilities; buildings and structures; industrial plants, infrastructure components, and energy generators. Shannon & Wilson’s Northwest presence includes our Seattle headquarters plus offices in Richland and Portland.
After years of continuous expansion in Europe and Asia and becoming the World leader in Automatic Geotechnical Monitoring for Construction, Soldata (re)started its activity in the US Market in 2010. Growth has been exponential since then and Soldata has been working in many of the recent large tunneling projects in Northern America. The most significant of these projects is the local Alaskan Way Tunnel, where Soldata is in charge of the complete monitoring program (currently the largest on-going monitoring program in the country) using the latest technologies available.

We strongly believe that Automatic data and alert management systems will become the rule for all the construction projects, especially where the geotechnical risk exists. We are very happy to see that the Seattle market is more mature for the use of automatic geotechnical instrumentation (and especially Automatic Motorized Total Stations) than most of the other places in the country. We’ll do our best to keep it on the edge of this industry, thanks to our local presence and our recently opened Northern America headquarters between SeaTac and Downtown. We also know that “Automatic Geotechnical Instrumentation and Monitoring” is no longer the privilege of the multi-million dollar projects and is now commonly used on smaller projects, as they are now cost effective in comparison with manual standard methods: risk is no longer acceptable and needs to be managed in (near) real time!

Our team is now composed of 15 people…with more than 5 different nationalities and all with diverse backgrounds, as our field expertise requires engineering skills from IT to geology, Mechanics to Surveying, Geotechnical to Structural. Half of our team has been hired locally in 2012, as we know that sustainable growth can only be achieved with local resources!

For more information about our capabilities and if you have any question on the design or implementation of your geotechnical monitoring program please call us, visit our website www.soldatainc.com or have a walk downtown Seattle looking up and down as you will probably see monitoring devices measuring movements of the ground and buildings.

The SPU Materials Laboratory Geotechnical Group has continued at a busy pace and been involved with a variety of projects in 2012. Jeff Fowler, P.E., former supervisor and manager at the Materials Lab, was promoted to Division Director of Construction Management at SPU. The group is led by Geotechnical Engineering Supervisor, Claire Gibson, P.E. Our staff includes Juan Carlos Ramirez, P.E., Senior Geotechnical Engineer, Sean Caraway, P.E., Senior Geotechnical Engineer, Cody Nelson, L.G., Associate Engineering Geologist, Aaron Clark, L.G., Assistant Engineering Geologist and Taryn Sass, L.G., P.E., Associate Engineering Geologist. We have also been joined by Hilja Welsh, a geotechnical engineer who was hired as a temporary employee in 2012. Congratulations to Aaron Clark and Taryn Sass who both earned professional licenses in geology and engineering, respectively, this year.

The geotechnical group has worked on various phases of a range of facility improvement projects for Seattle City Light, Seattle Parks and Recreation Department and Seattle Department of Transportation. In addition, the group has continued involvement in high profile SPU projects, such as the Windermere and Genesee Combined Sewer Overflow (CSO) projects, Ballard CSO Control Options Analysis, the North Transfer Station, and ongoing construction on the Madison Valley Drainage Long Term Solu-
2013 Groundhog

SubTerra Inc.® Contact: Chris Breeds

SubTerra, Inc. had a very successful 2012 with projects throughout the Seattle area and elsewhere in WA, OR, ID, CO, TX, CA, NY, Canada, Mexico, Croatia, and Israel. We completed our twenty first year provided Blast Consulting, Blast Engineering and Geotechnical Engineering services for several projects notably the Elwha and Glines Dams removal project in Port Angeles; Snoqualmie Falls Hydro-power project; Morelos Gold in Mexico; and the 10,000-year clock project in TX. Next year’s Blast Engineering work will also include projects in Canada and Alaska.

We provided Geotechnical Instrumentation and AMTS support notably for WSDOT I-90 road widening projects 1B and 1C at Hyak and in place inclinometer and tiltmeter monitoring at the Merwin Dam in Woodland, WA. Vibrating wire, MEMS and AMTS data are reported via MyDataView and ARGUS mounted on SubTerra’s servers at the Fisher Plaza data center.

Our SubTWarden automatic vibration monitoring fleet grew significantly and we now have systems installed throughout the US with data provided automatically and remotely via MyDataView. During 2012 we fielded forty remote monitoring stations with 999 or better rated availability. We look forward to adding more systems in 2013 and expanding our services in the mining sector.

We saw growth in our tunnel and micro-tunnel design work with projects in design and several bidding and ready for construction in 2013. The Martin Hill project will construct over 15,000 LF of 54-in water main with six tunnel sections in Austin, TX while the Boggy Creek project will install a 36-in water main under Boggy Creek.

Geotechnical services continued in support of Issaquah’s Major Design Review Team with over a decade of projects completed for the Issaquah Highlands and Talus Master Developments. We were recently awarded a similar service Contract with the City of Black Diamond that is expected to start in 2013.

We are looking forward to continuing to provide civil, mining, geotechnical, tunneling, and geotechnical instrumentation services in 2013 and starting a major Feasibility Study project in the Middle East.

Thanks to all our Clients! Finally, congratulations are due to Larry Leone of our staff for passing the Mining PE in 2012.

Contact: David A. Baska

The Geotechnical Department in Seattle’s office of Terracon Consultants (No. 39 in the 2012 ENR Rankings for Top 500 Design Firms) experienced some exciting changes over the past year. We hired University of Washington M.S. graduates Sam Probert and Richard Shimono, promoted Rob Sargent and Ryan Scheffler, and welcomed back Jim Schmidt to the Pacific Northwest. Jim is a National Program Manager for our Transportation Sector. Dave Baska manages the department and is
assisted by senior engineer Jim Brisbine and senior geologist Curt Thompson. Paul Davis leads our Tacoma office. Former Seattleites, Kris Hauk and Eric Lim, are the Office Manager and Geotechnical Department Manager, respectively, in our Portland office.

Our work for local private (developers, A&E firms, industry), public (municipalities, ports, utilities), and institutional (schools, healthcare, finance) clients is augmented with providing design support for Terracon’s 130 offices and business sectors (Transportation, Federal Services, and Energy). This allows our staff to develop business relationships in the Puget Sound region, comprehend construction practices in other parts of the country, and master a wide range of technical capabilities. Terracon’s established construction materials service line, managed by Allen Wycoff, compliments the geotechnical and environmental consulting services (managed by Matt Wheaton) to bring maximum value to our clients under the leadership of Eric Kunz (Seattle Office Manager).

Contact: Martin McCabe
martin.mccabe@urs.com

URS geotechnical engineering and related geological sciences staff of Seattle and Washington State were hard at work helping the company maintain its ENR #2 ranking for Design Firms. Some example activities by market sector are as follows:

**Infrastructure - Air Transportation:** Work continued on various aspects of the Boeing Field Taxiway A rehabilitation at Boeing Field and restarted on a new phase of Bellingham International Airport improvements. Field investigations were performed and designs developed for runway and taxiway extensions and RSA improvements at Oakland International Airport. Personnel included Brian Rapalee, Abhijit Bathe, Jason Piazza, Joshua Alcantara and Andy Carpenter.

**Infrastructure - Surface Transportation:** URS teamed with Flatiron Construction on a WSDOT Design-Build project to widen I-405 in the Bellevue to Lynwood corridor. Marty McCabe directed the geotechnical efforts, with other staff including David Johnson and Ken Yang.

**Infrastructure - Rail Transportation:** URS completed design development and construction support services to the Seattle Department of Transportation for the First Hill Streetcar Project, which included a maintenance facility supported on rammed aggregate piers. Pam Craig played a key role in this project.

**Infrastructure – Water Resources:** Rod Denherder continued to lead the URS efforts on set-back levee and stormwater control dam studies for King County and for the City of Kent. Work was wrapped up on a proposed fish bypass dam facility on the White River for the Corps of Engineers.

**Infrastructure – Ports and Harbors:** Additional FLAC studies were performed for the Port of Vancouver (WA) Terminal 5 potash storage and shipping facility, and construction support was provided as stone columns were installed for ground improvement. Dave Walker coordinated these efforts. At the Port of Tacoma URS designed and monitored construction of a barrier wall and improvements to a storage pond that is part of a lime processing facility. At the Port of Everett assistance was provided in design and installation of precast concrete piles for a new berthing facility.

**Industrial – Mining:** A substantial level of mining activity drew Washington staff to locations both near and far including the Morenci Mine in Arizona, Safford Mine in Arizona, Chino Mine in New Mexico, Red Dog Mine in Alaska, Pend O’Rielle Mine in Washington, and Buckhorn Mountain in Washington for a GIS-based slope stability study over a 9000 acre study area. Cecil Urlich leads URS northwest mining activities and was assisted by Todd Parkington, Kranti Maturi, Toby Clarkin, J.R. Sugalski, Marcus Walbaum, Chris Sneider, Keith O’Connell and Tony Palmieri.
Power:  C.B. Crouse and Mark Molinari performed seismic and geologic hazard studies for new LNG facilities in Western Australia, Viet Nam and British Columbia, including offshore platforms, and offshore and onshore pipelines. Suren Balendra provided analysis support.

Geotechnical services were also provided on a variety of projects at the Boeing Everett facility, on three rail terminals at refineries in the northwest region, and on other projects we would be happy to tell you more about. On a sad note, the father of geotechnical engineering at Dames & Moore and URS, Joe Lamont, passed away in 2012.

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Zonge International, Inc. established a strong presence on the Pacific Northwest, acquiring Northwest Geophysical Associates, Inc. (NGA) in December 2011. We continue to support past NGA clients providing geophysical services for wind farm site assessment, highway geotechnical design, groundwater resource evaluation, landfill delineation, fault mapping, phase-2 environmental investigations and more. For 40 years, Zonge International, Inc. has been providing contract geophysical field services on a worldwide basis. Zonge has offices in Tucson, AZ, Denver, CO, Reno, NV, and now Portland, OR. Zonge field services range from localized engineering studies to large-scale projects including geothermal and mineral exploration, groundwater studies, geophysical monitoring and environmental mapping. Zonge is a full-service geophysical provider, utilizing seismic, borehole, gravity, electrical and electromagnetic geophysical techniques. Zonge also designs, manufactures and sells a full line of state-of-the-art geophysical equipment.

We welcomed JB Shawver to the Portland, Oregon, office last March, as our new Managing Geophysicist. JB has been with Zonge for 5 years, most recently in Minneapolis, MN. He brought with him work nationwide from a major client in Minnesota. He and his wife have adjusted well to the rain in the northwest, leaving behind the Minnesota winters.

Rowland French, formerly president of NGA, continues as Senior Geophysicist in the Zonge Portland office. Rowland moved NGA to the Portland area in 2011 from Corvallis, where NGA has been since 1981. That move has proved lucrative for business development, logistical operations, and staffing opportunities. Michael Douglas transitioned readily from NGA to Zonge. This year he has managed projects throughout North America including Taylor, BC, Spokane, WA, Klamath Falls, OR, and Archer County, TX. Suzanne Malick continues to provide indispensable administrative support to the Zonge Beaverton office.

Zonge (Portland) 2012 projects include:
- Wind Farm site investigations, Archer County, TX
- Dam site investigations, Bixby, MO
- Snoqualmie Pass-I-90 bedrock mapping, Kittitas County, WA
- Groundwater investigation, Sitka, AK
- Fault mapping, Parks Highway MP237, Denali Borough, AK
- Hydro diversion structure, bedrock mapping, Kenai Peninsula Borough, AK
- Borehole logging, various sites in Pacific Northwest
- Bedrock characterization, Fairchild AFB, Spokane, WA
- Earthquake response surveys (downhole and surface wave analysis), various sites in Pacific Northwest