

# American Society of Civil Engineers Seattle Section/ Geo-Institute Seattle Chapter – Seattle Geotechnical Group

## A Collaborative Brief History

To the folks who know the Group today, they see a well-functioning organization that:

- Holds monthly meetings with speakers that easily draws 50 to 100 attendees and sometimes up to 250 attendees depending on the topic and speaker's reputation. (started 1976)
- Organizes & holds an annual 1-day Spring Seminar on a Saturday, usually at the UW, on a timely topic in the geotechnical world. Typically, there are 8 speakers & perhaps a panel discussion as well as exhibitors. Depending on the topic, and the weather, the annual spring seminar draws 100 to more than 300 attendees each year from across North America (many attend from British Columbia). This seminar started as a half day event in 1984 and is the major revenue source funding Group activities and donations
- Holds a 1-day short course where a national lecturer(s) discusses or teaches a topic for an entire day. This short course is typically held the day before the Spring Seminar. Additional short courses have infrequently been held in the fall. (started in 2005).
- Holds joint meetings with the Seattle ASCE Section, the Association of Engineering Geologists (AEG), the Structural Engineers Association of Washington (SEAW). This started in the 1980s. The Group also announces and promotes the events of other similar organizations. (started in 2005)
- Has developed a Service Award, under the guidance of Allen McNab, for those in the group who have gone far in expanding the Seattle Geotechnical Group through participation in our organization. Presentation of a Service Award started in 2007. Service awards were posthumously given to surviving family of some of the early pioneers in geotechnical engineering in the NW. These awards were presented to Gene McMasters, Bill Shannon, Joe Lamott, Jack Tuttle, and Neil Twelker.
- Has responded to local engineering permitting issues, typically in response to requests by the City of Seattle's building permit department (in 2021 known as the Seattle Department of Construction and Inspections, SDCI), for guidance on a specific topic related to geotechnical engineering considerations for Seattle building projects.
- Distributes electronically an annual newsletter titled the "Ground Hog" which started in about 1997 and discusses local issues, upcoming events, as well as allowing each member firm to update all on their new hires and unique projects.
- Contributes annually since the late 1980s, to the Civil Engineering Departments of Seattle University and University of Washington to assist with funding of laboratory and student activities.
- Made a significant donation to University of Washington to assist with the upgrade of geotechnical laboratory equipment.
- Since about 2000, has contributed approximately \$5,000 funding each year to the University of Washington chapter of Engineers Without Borders to help fund their activities.
- Created in the late 1990s, a partial scholarship for engineering students studying geotechnical engineering. Initial funds generated by the seminar. In about 2006, the Geotechnical Group provided the seed money to establish the Robert D. Holtz Endowed

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Fellowship to support graduate student education and research in Geotechnical Engineering. Our group initially provided \$50,000 and secured donations for an additional \$50,000 from over 70 individuals and firms and \$25,000 from the State of Washington. Our group has continued to contribute to the Fellowship, which has grown to over a half a million dollars. [https://www.engr.washington.edu/giving/stories/impact\\_holtz.html](https://www.engr.washington.edu/giving/stories/impact_holtz.html)

All of our activities and community service are provided by volunteers and our strongly supported by local firms and agencies. Our volunteers work hard, commit hours to our activities, and provide leadership and ideas. All of these accomplishments were completed by local folks with minimal assistance from the National ASCE office or Geo-Institute – both located on the East Coast. The following pages present some additional specific details of our interesting history.

### **The Beginning Years:**

When I (Frank Pita), the first chair of the geotechnical group, moved to Seattle, I attended a general section ASCE meeting and asked the current President..., “when does the geotechnical group meet?” I was told that the group did not meet because it had no organizational chairperson. As background, I asked this question because I moved here from Oregon where a very active and well attended geotechnical group meeting was held monthly in the Portland, OR area, which I attended when obtaining a graduate degree from Oregon State. I found the lack of a professional geotechnical group in Puget Sound surprising because generally the same geotechnical firms were in both the Seattle and Portland markets, so what was the difference or reason in Seattle?

Well, my opening my mouth, got me placed as the chairperson of the Group in 1975, with my self-imposed assignment to begin a ASCE Seattle Area Geotechnical Group that held meetings similar to the Portland meetings I had attended. This was particularly interesting because at that time, I was a staff engineer at CH2M Hill and was only in my late 20s at the time, but with the support of my current firm’s management, I decided to give it a try and started by calling the managers of the local geotechnical firms in the greater Seattle area to see if they would support a Group and help supply speakers for the dinner meetings the I would organize. The engineers who attended the first organization meeting at 4 PM one afternoon, were:

- Bill Shannon of Shannon & Wilson,
- Jack Tuttle, of Dames & Moore, who would go on to found GeoEngineers,
- Roger Lowe, of Roger Lowe & Associates, and
- Gene McMasters of Converse, Ward, Davis, Dixon.

All of them said this was a great idea, they all knew of Portland’s Group, and said that forming the Group was way overdue. They also committed to helping me line-up speakers and, in addition, they would strongly suggest that their staff attend. The topic of conversation then turned to WHO will be the first speaker and when. I believe it was Bill Shannon, who volunteered Gene McMasters, who accepted, to be the Group’s first speaker. Bill knew and volunteered that Gene McMasters had a talk on the geotechnical / construction aspects of the many wastewater tunnels

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just built in the late 60s and early 70s in the Seattle area. He thought this talk would be a great draw because it covered so many parts of our geotechnical engineer / geology field.

Well, I found a restaurant that had a room that would hold 75 folks and my firm allowed the receptionist to take the dinner reservations: but... over 100 showed up for the first meeting, many not calling in first. So, Bill Shannon was right, the topic was a great draw, and we also found that a large need for the geotechnical community was going to be filled. We were off, but I had to find a larger room and changed restaurants.

Our third speaker was Ralph Peck, who was consulting locally for WSDOT through Shannon & Wilson on the I-90 Baker Ridge Tunnel. That meeting drew over 300 folks and was standing room only. Stan Wilson was another large draw as well as A.A. Mathews. During these early years, alcohol was consumed by many, so the ‘after-meetings’ were extremely educational about the business world of geotechnical engineering, and they would last for hours. The restaurants loved us.

I was chair for the first two years, followed by Pete Douglas of Shannon & Wilson, and it has continued too today. The Seattle Section of ASCE saw how great the geotechnical group was going, so they asked me to become a section board member and I worked my way up to ASCE Seattle Section president in the early 80s. Other geotechs have followed this path after me. The list of all past chairpersons of the Geotechnical Group is attached to the end of this brief history.

### **The Middle Years:**

There were many who helped but I believe the driving force to establish a seminar was David Cotton, who worked for Converse Consultants at that time. Between 1977 and 1980, a monthly ASCE Geotechnical Journal Discussion Group was formed by David Cotton, Gordon Denby, Henry Landau and Bob Plum, to discuss the latest publication papers and to discuss how to advance public safety and engineering practice from the latest technical advances. During this time, the group concluded that this should be done on a larger scale with a focus on a specific subject. This ultimately led to the annual Geotechnical Seminar. David was the Geotechnical Group chairperson for 1982-1983 and his hard work got the first seminar underway in 1984. My being the section president allowed the support the Geotechnical Group needed from the ASCE Seattle Section, even though what the geotechnical group was doing would end up being larger than the Sections programs, but we did not know this at the start. What happened ultimately and is to this day, was the old parable of ‘the tail, wagging the dog’.

The first one day seminar topic was ‘Soft Ground Tunneling’ and it was well received. As I understand the motivation of the seminar steering group over the years, it was to advance the communities knowledge to geotechnical advancements in the fields of:

- Soil nail design,
- Permanent vs Temporary Ground Anchors,
- Advancements in geotextile designs,

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- Construction of slopes & landslide recognition,
- Instrumentation & Dewatering.
- Advances in Earthquake engineering,
- Advances in Ground Improvement &
- Numerous Similar Topics (the Spring Seminar titles are listed at the end of this brief history and show the groups breath as well as topics that were touched on again).

The handouts of the seminar proceedings started with simply a handout of the speakers resume and the abstract of the talk. With time, we transitioned from slide shows to PowerPoint, and seminar proceedings consisted of the entire PowerPoint talk being provided in a handout with a CD of the talks. Now you are provided a flash drive.

At about this same time, the Seattle building permitting officials, who were also engineers, came to the group and asked if we would partner with them to both educate and prepare a document for distribution, if adopted by the City Council, for use in the permitting process. This all started in 1982 when William Justen, the Seattle City Attorney, Tom Kinsman, the Lead Plans examiner and lead Structural Engineer for the City of Seattle, and Keith Miller, the Permit Lead for deep excavations at City of Seattle Department of Construction and Land Use, ask David Cotton, who they knew was Chair for the ASCE Seattle Section Geotechnical Group, to help them write a Directors Rule to control or properly engineer development on steep slopes in the City of Seattle. David took the request to the Geotechnical Group and Seattle Sections board (where I was at this time) and received unanimous support to form a committee to draft the 'Directors Rule'; with David as the lead.

Since then, a number of other Directors Rules and educational meetings have been prepared and attended by the ASCE Seattle Section Geotechnical Group in collaboration with the City's permitting staff and these are as follows:

- Participated in landslide workshops to educate the public about landslides. ASCE along with AEG, City of Seattle staff, and a few other groups we provided twice yearly landslide workshops for homeowners. Provided public education support around the City of Seattle for residents to learn about 'life-line' public safety in the case of an earthquake, including the nature and history of earthquakes in the Seattle Puget Sound region. Following the occurrence of a significant number of landslides in the late 1990s, our organization and AEG also worked with other impacted municipalities and provided landslide workshops in Mukilteo, Mercer Island, and Bellevue.
- Provided a list of member firms on the website (with an indicator of the type of work each does – so the City has a place to send people who need help). The current City Permit manager stated, "...I have to say that I did not know that was the reasoning for having a published member list, but it is a place that we refer people when they ask for recommendations because we are not allowed to recommend specific firms..."
- Helped organize and participated in a Practice Committee that included representatives of City of Seattle to develop guidelines which have been incorporated in Director's Rules used by the City of Seattle and SDCI. The Geotechnical Group provided input to the:
  - small diameter pipe piles (pin piles) Director's Rule,

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- ground improvement guidelines, and
- guidelines for geotechnical reports.
- As a note, once Seattle adopted these rules, we have found that other smaller Cities and agencies throughout the Northwest have adopted them into their permitting guidelines.

Having the Seattle City's staff engineers as part of our geotechnical group board and being on the rule or guideline preparation committees to help prepare these has been a great collaboration to advance the practice of geotechnical engineering.

### **The New Century:**

By the year 2000 the Group had grown to more than 800 members and had earned a national reputation for providing excellent educational, professional development and leadership opportunities. Between 2003 and 2007 group presidents Keith Ward, Doug Lindquist, Mark Rohrbach, and Mike Harney capitalized on the group's reputation and expanded the group's leadership from three people to five people. Prior to this change, each officer was required to serve a three-year term. Keith realized that this requirement created an unnecessary obstacle to young engineers (particularly women) who wanted to start a family, so the new leadership structure allowed young engineers to serve for a single year. Keith also realized that not everyone would be a strong Committee Chair necessarily or desire to become the Group's chairperson; so, the new (and current) leadership structure was changed so it did not require all officers to rotate into becoming the Chairperson of the Group. These changes resulted in an immediate and significant increase in technical oriented and/or female participation in the Group's leadership board.

In 2005, the demand for professional education in our technical field (and PDH's) was so great, that the day before the Spring Seminar was established as a 'technical class' day where topics the Group thought were needed were presented in lecture form by national experts, who were compensated for their costs. This was a way to educate mid-level staff on the recently developed approaches in geotechnical design that may not have even been taught when they were in school, to refresh their skills, or to learn about a topic they were unable to have a class when they were earning their engineering degree.

To help broaden the attendance at the local meetings, the Group used to discount or covers part of the cost of dinner so that local engineering students at the two engineering universities in our City can attend. Since the mid-2000s, the cost of dinners for university students attending our monthly meetings has been covered 100 percent through direct sponsorship by local engineering firms. Discounts are also provided to employees of government agencies, who are not reimbursed by their employer, to help encourage their attendance of our monthly meetings.

And lastly, as a historical note, when the Geotechnical Group of the ASCE Seattle Section started, it was called a 'Group' and the leader was the Chairperson of that 'Group'. Subsequently, the national ASCE organization established 'institutes' to more directly focus on technical areas of practice, and the Geo-Institute of the ASCE was created in 1996. Bo McFadden, a past

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Chairperson, led the efforts to negotiate the Memorandum of Understanding between our local Group and the Geo-Institute which resulted in us becoming a local Chapter of the Geo-Institute in October 2010. This affiliation provides the local Chapter (aka Seattle Geotechnical Group) a direct connection to resources that the Geo-Institute has developed.

### **Concluding Remarks**

It appears, that the key to the success of the ASCE Seattle Section / Geo-Institute Chapter - Seattle Geotechnical Group is the recognition that nothing is advanced to benefit the public without good leadership advancing the profession. This is represented by the individuals that agree each year to lead the group, by the support of their board members, and by the many volunteers who support our programs and activities. Over the past 45-year period, this leadership has organized and maintained a steady flow of technology transfer as well as energizing and advancing the profession in the greater Northwest and beyond. We feel it is not a coincidence that nearly every past Chairperson of the group has gone on to hold a leadership position at their firm or within their public organization.

Secondly, we feel that our success is due to our culture of inclusion and collaboration. A quick review of the photos of the group's officers, which are included in the various issues of the Ground Hog publication, documents our tradition of inclusion. Fundamental to our success has been our group's collaboration with:

- the University of Washington and Seattle University's engineering departments,
- AEG in a yearly joint meeting,
- SEAW in a yearly joint meeting,
- ASCE General Section in a yearly joint meeting, and
- the inclusion of local and regional contractors and their geotechnical engineers employees,
- geotechnical oriented construction material suppliers' technical staff,
- WSDOT's geotechnical division,
- FHWA Regional Geotechnical Engineer,
- City of Seattle Department of Construction and Land use (now SDCI), and
- the Engineering Staff members working for Cities and Counties in the Puget Sound Area.

The main body of this historical summary represents proof of what we claim to be true, "that through collaboration with others in our profession, even though we have been business competitors locally, we have joined together to address needs or to advance new ideas in our engineering practice. The Group members did this because they saw it benefited the engineering practice and public safety, both locally and nationally in our field of practice". A review of the list of key topics presented and discussed at the annual Spring Seminars along with the monthly meetings demonstrates this as well. Lastly, with the economic growth in the Pacific Northwest, this tradition of service is needed into the future and it appears to be in good hands.

*Summary text prepared & organized by: Frank Pita, with major input from David Cotton, Mark Rohrbach, Stan Boyle & Bo McFadden.*