



The Official

# OREGON SECTION AEG NEWSLETTER

## January Meeting Details

**Date:** Wed. January 6th  
**Location:** Crowne Plaza Hotel  
 14811 Kruse Oaks Drive  
 Lake Oswego, OR  
**6:00 pm Social**  
**7:00 pm Dinner**  
**8:00 pm Presentation**

**Dinner: TBA**

**\$35 Dinner (\$5 Students)**

**Reservations:**  
 mwegner@cornforthconsultants.com  
 with "AEG Reservation" in  
 the subject line or 971-222-  
 2047 by Noon Tuesday Jan.  
 5th.

**There is a \$2 surcharge for those who do not reserve by the deadline.**

**Upcoming Meetings:**

Feb. 16—Ralph Soule  
 Mar. 17—TBA  
 Apr. 20—Student Night  
 May 18—TBA



## The January Meetings Guest Speaker is Robert Robinson from Shannon and Wilson, Inc. — Geotechnical Aspects in Recent Tunneling Projects in the Puget Sound Area—JOINT ASCE/AEG

The Beacon Hill Station and Tunnels contract includes the civil facilities construction for approximately one mile of 20-foot diameter twin-bore tunnels, and a deep, mined, binocular tunnel station. The mainline tunnels were driven using an Earth Pressure Balance Tunnel Boring Machine (EPBM) and a one-pass pre-cast segmental lining. The Beacon Hill Station is the deepest, mined structure of its size in soft ground using Sequential Excavation Mining (SEM) techniques for tunnel structures up to 40 feet in diameter in North America.

The Beacon Hill station and tunnels were constructed in a very complex geological setting influenced by several glacial and non-glacial periods and possible tectonic influences. In 2002 and 2004 the US Geological Survey redefined the aerial extent of the fault splays and interpreted a "deformation zone" for the Seattle Bremerton Fault, such that the Beacon Hill Station is within the deformation zone and 1/2 mile north of the northern-most fault splay.

The presentation will discuss the geologic conditions anticipated and those encountered, how the actual conditions were handled, and the overall construction of the station and tunnels. He will also briefly discuss relevant aspects of other recent and future tunnel projects in the Puget Sound basin, including WSDOT's Alaska Way Viaduct replacement tunnel.

## Speaker Bio: Robert "Red" Robinson

Robert "Red" Robinson, a senior vice president and the Director of Underground Services for Shannon & Wilson, Inc. in Seattle, Washington has nearly 35 years of experience on over 300 tunnels throughout the U.S. His tunneling career began while at the University of Illinois, working on the Dupont Circle, Fine Arts and Zoo Stations in Washington D.C. He has worked on such notable projects as the 65 ft I.D. Mt. Baker Ridge Tunnel in Seattle, the Baltimore Subway, Superconducting Super Collider in Texas, TriMet Westside Corridor Light Rail Transit Tunnel in Portland, and is currently working on several tunnels in the Pacific Northwest, including Sound Transit's Beacon Hill Tunnel and Station Project, and WSDOT's Alaska Way Viaduct replacement tunnel. He is currently a member of the Executive Committee for the Rapid Excavation and Tunneling Conference, and an executive member of the Underground Technology Research Council. He has authored and co-authored over 50 professional papers dealing with various aspects of tunneling, rock mechanics, and slope stability.

*“Keen observation is at least as necessary as penetrating analysis”*

*Karl Terzaghi*



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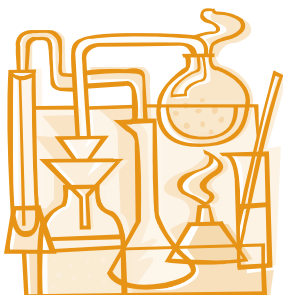
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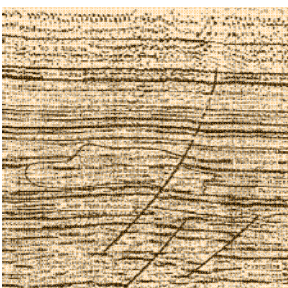
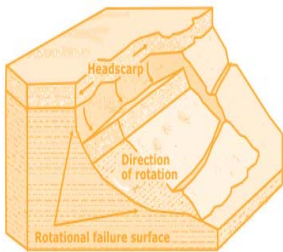
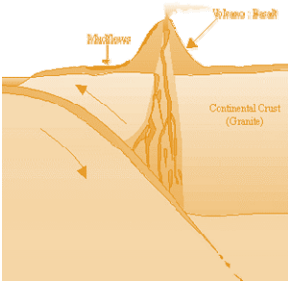
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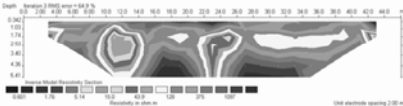
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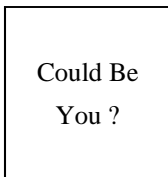
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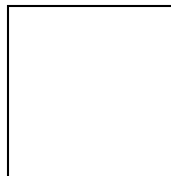
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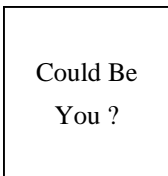
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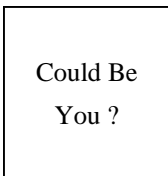
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## The Oregon Section Newsletter

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