

# ASSOCIATION OF ENGINEERING GEOLOGISTS

*"Serving Professionals in Engineering, Environmental, and Ground-Water Geology"*

## THE ROCKY MOUNTAIN SECTION NEWSLETTER

[www.aegrms.org](http://www.aegrms.org)

### **MEETING DATE**

**THURSDAY  
OCTOBER 9, 2003**

### **TIME**

5:45 p.m. Social Hour  
6:30 p.m. Dinner  
7:30 p.m. Presentations

### **LOCATION**

**GEOLOGY MUSEUM**  
Colorado School of Mines  
Golden, CO  
See map below

### **COST**

\$20 Members  
\$22 Non-members  
Free for Students first  
time, \$10 then after

### **RESERVATIONS**

c/o AEG Reservation Line  
(303) 790-2161 x 243 or  
[meetings@aegrms.org](mailto:meetings@aegrms.org)  
**BY NOON, TUESDAY  
OCTOBER 7<sup>th</sup>**

## **Geotechnical and Geological Considerations During Construction of the TREX Project.**

**William J. (Bill) Attwooll, P.E.**  
**Terracon Geotechnical Consultant**

The TREX project consists of 17-miles of roadway improvements and construction of a light-rail transit (LRT) line along I-25 and I-225 in Metropolitan Denver. Along I-25, the project extends from Broadway just south of downtown Denver to Lincoln Avenue in northern Douglas County. Along I-225, the project extends from I-25 to Parker Road. The I-25/I-225 Interchange will be fully reconstructed to allow roadway and LRT movements.

Geologically, the north portion of the alignment extends onto South Platte River alluvial terraces that are underlain by firm "Denver Blue" siltstone/claystone bedrock of the Cretaceous/Paleocene Denver Formation. To the south of about Franklin Street, the alignment extends onto softer, more weathered portions of the Denver Formation typically mantled by clayey alluvial and eolian soils. The south end of the I-25 alignment extends onto the Paleocene Dawson Formation. The weathered Denver and Dawson Formation consist of interbedded claystone and sandstone.

Discussion will center on how the geotechnical and geologic conditions along the alignment were taken into consideration during design. From a geotechnical/geological viewpoint, major design features included bridge foundations, drainage tunnels, several miles of retaining walls, pavement design, and LRT track support. Design considered the expansion potential of the clayey formational materials and overburden soils.

## **Board of Directors**

### **Chairperson**

Darin Duran  
J.A.Cesare & Associates,  
303.220.0300

[chair@aeqrms.org](mailto:chair@aeqrms.org)

### **Chair-elect**

Ben Arndt  
[chair-elect@aeqrms.org](mailto:chair-elect@aeqrms.org)

### **Secretary**

Scott Walker,  
[secretary@aeqrms.org](mailto:secretary@aeqrms.org)

### **Treasurer**

Paula Jo Lemonds,  
[treasurer@aeqrms.org](mailto:treasurer@aeqrms.org)

### **Membership**

Scott Walker,  
[membership@aeqrms.org](mailto:membership@aeqrms.org)

### **Newsletter**

Kristi McQuiddy,  
GEI Consultants, Inc.,  
303.662.0100  
[newsletter@aeqrms.org](mailto:newsletter@aeqrms.org)

### **Website**

Ed Friend,  
GEI Consultants, Inc.,  
303.662.0100  
[webmaster@aeqrms.org](mailto:webmaster@aeqrms.org)

### **Past Chair**

Jim Wright,  
GEI Consultants, Inc.,  
303.662.0100

[past-chair@aeqrms.org](mailto:past-chair@aeqrms.org)

### **Student Chair**

Nancy Heflin  
[student-chair@aeqrms.org](mailto:student-chair@aeqrms.org)

### **Website**

[www.aeqrms.org](http://www.aeqrms.org)

Among the interesting aspects of the project was the performance of drilled shaft load tests using the Osterberg Cell method, and how interpretation of the test results was applied to drilled shaft design.

## **Words from the Chair**

Greetings! Whew, what a year we have just completed. From the AEG headquarters move to hosting the national meeting. I'm sure several of us are still recovering, but hopefully, the recovery time is short because the 2003-2004 season is upon us. I would like to start off with many thanks to the Vail organizing committee, especially Mike Hattel, for a job well done. I only heard good responses from the Board of Directors on the quality and excitement of the meeting. I would also like to thank Jim Wright for guiding our section through a very demanding year that resulted in the Rocky Mountain Section receiving the section of the year award. Great job guys!

With everything accomplished this last year, is it possible to keep the energy going? I'm going to try. Of my objectives is to provide leadership and be the ambassador of our section to the changes occurring at the national level. New mission, value and vision statements are being formulated along with a new strategic plan to guide AEG into the future. I also want to strengthen our section between our borders by having direct contact with the New Mexico chapter and guiding Rapid City to the formation their own chapter. Most importantly, my roll as chair is to serve the members, so please do not hesitate to contact me or the other officers with comments, questions or concerns. Let's have another great year.

Darin Duran

## **Section Awards**

The Rocky Mountain Section and some of its members were recipients of yearly awards. The section was named Section of Year. Colorado School of Mines Student Chapter was runner up in Outstanding Student Chapter. Scott Miller from the South Dakota School of Mines was received a Platinum Corporate Sponsor Student Award. Congratulations to all.

## **November Meeting Date Changed**

The November meeting will be held one week earlier on November 6, 2003. Further information to follow.

## RMS 2002-2003 Speakers

November 6, 2003 - *Mike Applegate, Applegate Group Canal Rehabilitation Project in Western Colorado. Note: This meeting is a week early*

December 12, 2003 - *Harley Benz of USGS Volcanos. Note: This is family night.*

January 30, 2004- *David Simon AEG President.*

February 12, 2004 - *Student Night, Students from South Dakota School of Mines and Technology and Colorado School of Mines*

March 11, 2003 - TBD

April 8, 2003 - TBD

May 13, 2003 - TBD

## Colorado State Geologists Job Listing

The Colorado Geological Survey is searching for a state geologist. Follow the below link for more information.

<http://www.gssa.state.co.us/announce/job+announcements.nsf/5a50e7ae62411f9e872564db004c6ce2/61e1bad9b80af97e87256d98006990fe?OpenDocument>

## Rocky Mountain Section AEG – Annual Report 2002-2003

It is with great pleasure and pride to submit this year's Section Summary Letter. The Rocky Mountain Section of the Association of Engineering Geologists is the largest geographical section in the Association and maintains the third largest membership roster. The Section is home to more past Presidents, Honorary, Distinguished and Charter Members than any section other than the original California Sections. Our accomplishments this year reflect that high quality, dedicated member in the attention to detail

when responding to the needs of the Association during the final transition to the new Denver office or carrying out the monumental task of being the sole host of the 2003 Annual Meeting in Vail, Colorado.

The Rocky Mountain Section has achieved a member renewal rate of 85 percent, one of highest in relation to total members per section and has grown by over 20 new members. Our most exciting addition has been bringing along a new Chapter in New Mexico in preparation for the 2009 Annual Meeting in Albuquerque/Santa Fe. Individual member accomplishments include Samuel R. Bartlett, co-winner 2001 Claire P. Holdredge Award and Tim Petz, winner 2003 Douglas R. Piteau Outstanding Young Member Award and AEG Membership Chairman. Susan Steele-Weir and Deb Green are also volunteering for Association business by serving on the AEG Engineering Geology Foundation Board of Directors.

The Rocky Mountain Student Chapters have once again captured several Association awards including Colorado School of Mines (CSM) selected as 2002 Outstanding Student Chapter, the 2003 Marliave Scholarship winner Jessica Pence Humble (CSM), the 2002 Tilford Scholarship winner Paula Jo Lemonds (CSM), the 2003 Tilford Scholarship winner Heidi Sieverding, South Dakota School of Mines and Technology (SDSM&T), and the 2002 Student Professional Paper winner (Graduate Division) Bradley A. Crenshaw (CSM). The CSM Student Chapter reaffirmed their dedication to the Section and Association by hosting a fund raising auction to help defray their annual costs thereby maintaining a healthy Chapter.

The Annual Student Night was a tremendous success this year with nearly 100 guests listening to four outstanding authors present their papers. Two first place awards (new Brunton compasses) were handed out and approximately 45 students, including 12 from South Dakota School of Mines and Technology, were treated to a nice dinner and evening due to the generosity of Section member sponsors.

The Section's monthly meetings have continued to grow in popularity as our average attendance was between 45 and 50 members each month. This year speakers included:

- September Roy Spitzer (Tetra Tech RMC) – “Standley Lake Rehabilitation Project”
- October Jim Lambrechts (Haley & Aldrich, Inc.) – “The Tenuous Relationship Between Groundwater and Wood Piles in Back Bay Boston”
- November David Bieber (GEOCON) – “Geologic Assessment of Naturally Occurring Asbestos”
- December Bob Raynolds (Colorado Museum of Science and Nature) – “Of Dinosaurs and Water”
- January Scott Burns (Portland State University) – “Lessons Learned from Landslides”
- February Annual Student Night – Jonathan Brinson, Jessica Pence Humble, John Keefner and Paula Jo Lemonds
- March “Skip” Watts (Jahns Distinguished Lecturer)- “Washington Politics and Geology”
- April Jonathan White (Colorado Geologic Survey) – “Landslide Susceptibility Mapping in Colorado Springs”
- May Steve Kuehr and David Bixler (Lyman Hen, Inc.) – “A Case History of the 25<sup>th</sup> Avenue Gravel Pit – Storage Reservoir and Inlet/Outlet Structures, Greeley, Colorado”

Also in April New Mexico Chapter meeting: Peggy Ganse

(Lyman Hen, Inc.) –  
 “Geotechnical Investigations and Ground Characterization for Tunneling”

The meetings are announced every month in “The Rocky Mountain Section Newsletter” which is now E-mailed to nearly all the section members and is posted on the section website located at [www.aegrms.org](http://www.aegrms.org). Local professional associations that network with the Rocky Mountain Section have praised and complimented section members Ed Friend and Kristi McQuiddy for the appearance and content of the newsletter.

In addition to our regular meeting activities, the Rocky Mountain Section cosponsored a daylong geotechnical seminar in October with the American Society of Civil Engineers, Geotechnical Section of the Colorado Association of Civil Engineers, Colorado Association of Geotechnical Engineers and the Colorado Geologic Survey. The seminar was titled “Geotechnical Engineering in Transportation: More Than Just Lines on a Map” and featured 18 topics, 22 speakers and 20 poster presentations and exhibitors.

Another project that has captured our focused dedication has been the compilation of the new AEG Special Publication No. 15 titled “Engineering Geology in Colorado – Contributions, Trends and Case Histories”. The publication will contain over 50 papers and case histories authored by some of the regions most notable geoscientists and engineers. A tremendous effort has been expended to have AEG Special Publication No. 15 available for sale and distribution at the start of the 2003 Annual Meeting in Vail.

These efforts and the commitment to quality monthly meetings have been fruitful in the financial aspects of the Section. We have increased our Section coffers by approximately 25 percent this year and by virtue of that, we were the first Section to contribute \$1000 and become an AEG Platinum Sponsor. The 25 percent sponsorship pass-through that was deferred back



Friend [webmaster@agrms.org](mailto:webmaster@agrms.org) or Kristi  
McQuiddy [newsletter@agrms.org](mailto:newsletter@agrms.org).

# AEG ROCKY MOUNTAIN SECTION BALLOT FOR FALL 2002/SPRING 2003 OFFICERS

Fax or e-mail to Jim Wright, [past-chair@agrms.org](mailto:past-chair@agrms.org), by October 31, 2003.

FAX TO:            ATTN: Jim Wright

FAX NUMBER: 303. 662.8757

CHAIR-ELECT:

\_\_\_\_\_ Ben Arndt

\_\_\_\_\_ (write in)

TREASURER:

\_\_\_\_\_ Paula Jo Lemonds

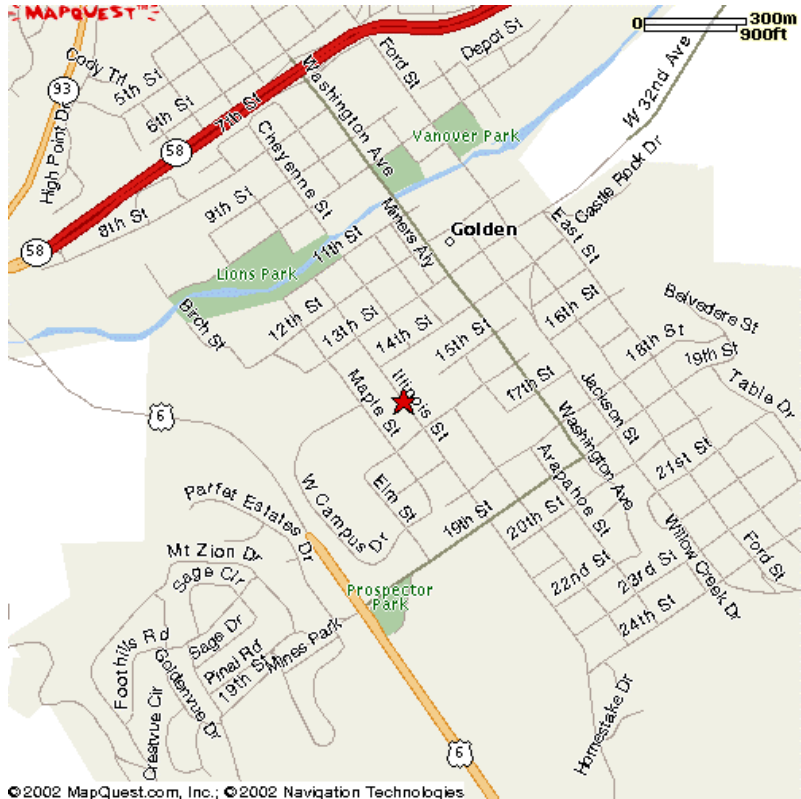
\_\_\_\_\_ (write in)

SECRETARY:

\_\_\_\_\_ Scott Walker

\_\_\_\_\_ (write in)

**Darin Duran was elected Chair-elect last year and will be taking over as  
Chair for Fall 2003/Spring 2004.**



©2002 MapQuest.com, Inc.; ©2002 Navigation Technologies

**GEOLOGY MUSEUM**  
**COLORADO SCHOOL OF MINES**  
**1516 Illinois St.**  
**Golden, CO 80401**