

Association of Environmental and Engineering Geologists

The Rocky Mountain Section Newsletter

NOVEMBER 2006

MEETING DATE

**THURSDAY
NOVEMBER 9TH,
2006**

TIME

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

LOCATION

**Berthoud Hall,
Colorado School of
Mines
1516 Illinois St.
Golden, Co 80401
See Map Below**

COST

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

RESERVATIONS

Kristi Ainslie
(303) 264-1030
or
meetings@aegrms.org
or
WWW.AEGRMS.ORG

**BY NOON,
TUESDAY
NOVEMBER 7TH**

LANDSLIDING, LARAMIDE TO PRESENT UNRAVELING THE GEOLOGIC PAST FOR SMART DEVELOPMENT

Liv Bowden, P.G.

**Senior Project
Engineering Geologist**

Golder Associates, Inc.

As real estate demand grows and easier developed land becomes less available, mitigation by avoidance becomes less of an option. Angler Mountain Ranch is an approximate 190-acre site proposed for high end residential development in Silverthorne, Colorado. The site is in the Blue River valley, ½ mile east of the Williams Fork thrust fault of Laramide origin on the west edge of the Front Range uplift.

Overlying bedrock of the Pierre Shale and Niobrara Formation are overburden soils of alluvium on the valley floor and glacial drift, colluvium and residuum on the slopes above the valley floor. Recent and potentially active landslide deposits associated with block failures and surficial slump failures in the over-

burden soils occur along the base of the valley sides and in isolated areas elsewhere at the site. A unique slope failure mechanism is evident in parts of the site where residual soils are underlain by shale bedrock at comparatively shallow depths. Areas of shallow surficial soil creep are also evident. Subsurface exploration identified a large anomalous block of highly weathered pre-Cambrian metamorphic and igneous material that appears to be associated with thrust faulting or gravity gliding. Determination of the relative age of slope movements and mechanisms for movement was based on geologic field observations of slope movements spanning tens of millions of years.

A Development Constraints Map was prepared for use in locating site improvements and identifying areas where site-specific engineering geology and detailed geological engineering analysis can be performed to allow development that is both safe and aesthetic.

Words From the Chair

I would like to thank all of you for the privilege of serving you as Chairman of the Rocky Mountain Section of AEG for the 2006/2007 season. We had a great 2005/2006 season thanks to the efforts of our Past-Chair, Dwaine Edington. Dwaine's efforts such as field trips, member ski day, student outreach and excellent monthly speakers resulted in our section receiving the Outstanding Section Award. I appreciate the honor of accepting the award at the annual meeting in Boston on behalf of Dwaine and all of you who have contributed to our success. I am very excited and

encouraged to have a group of such terrific individuals for section officers.

Chair-elect: Steve Compton
Secretary: Margit Kurka
Treasurer: Dawn Schippe
Past-chair: Dwaine Edington

I very much look forward to working with my officers and all of you to continue our success and have another great year. I think everyone will agree that our new caterer is a big improvement and we have some interesting speakers lined up for the coming meetings. If any of you have any ideas or suggestions for improvement I encourage you to contact me or any of your officers. Thanks again. More to follow as it unfolds...



EERI Seeks Nominations for the Shah Family Innovation Prize

The Earthquake Engineering Research Institute seeks nominations for the Shah Family Innovation Prize, which rewards young professionals and academics (less than 35 years of age) for creativity, innovation, and entrepreneurial spirit in the field of earthquake risk mitigation and management.

The prize was created with a substantial gift to the EERI Endowment Fund by the Haresh Shah family of Stanford, California. The cash prize honors individuals who

have demonstrated at early stages in their careers the potential to make major contributions to the field. Past accomplishments will be evaluated in terms of whether they demonstrate social relevance, an intellectual contribution, and viability. Individuals in government, private firms, academia, and the international community are encouraged to nominate eligible candidates.

The prize will be awarded in February 2007 during the EERI Annual Meeting in Los Angeles. The deadline for nominations is **November 30, 2006**.

For information about the nomination process and past recipients, visit

http://www.eeri.org/home/honors_shah_innovation.html.

**EERI—
Earthquake
Engineering
Research
Institute**

Deep Foundations Institute - Call for Papers, 32nd Annual Conference



DFI will bring their 32nd Annual Conference on Deep Foundations to Colorado Springs, CO, USA at The Broadmoor, a breathtaking resort facility located at the foot of the spectacular Rocky Mountains. The organizing committee, led by Conference Chairman Dr. Howard Perko of CTL|Thompson Inc. and Program Chairmen Kyle Kershaw, Shannon & Wilson and Scott Anderson, FHWA Federal Lands Highway Office, has issued a call for abstracts-invitation to speakers for the October 11-13, 2007 event.

Abstracts of no more than 300 words are solicited on the broad range of deep foundation topics covering Historic Practice, New Design Methods, Innovative Installation Techniques and Quality Control. Some specific topics of interest identified by the committee include:

- Impacts of Colorado's geologic hazards on deep foundation design & construction techniques
- Installation of deep foundations in difficult mountain environments
- Use of reticulated micropiles for earth retention and slope stabilization
- Earth retention projects in the Rocky Mountains
- Skin friction of drilled concrete piers installed with temporary casing
- Unique geotechnical strategies for renovation of historical projects
- Design of deep foundations in expansive soils
- Advancements in determining deep foundation capacities using NDT methods
- Current state of practice regarding helical technologies
- Instrumentation in geotechnical engineering
- Embankments and earth retention structures on deep foundations
- Load Resistance Factor Design (LRFD) in geotechnical engineering

Deadline for abstract submissions is January 5, 2007 and should be submitted online at:
<http://216.228.1.34/icpauthrev/loq.asp?sitelD=dfi2007>

Formatting guidelines of the papers are available on the submission site, from DFI Headquarters, and also at www.dfi.org. All correspondence related to paper submission, including abstracts, shall be directed to:

2007 Program Chairmen
Deep Foundations Institute
326 Lafayette Avenue
Hawthorne, New Jersey 07506
Tel: 973-423-4030 - Fax: 973-423-4031
Email: dfihq@dfi.org

Congratulations...

Rocky Mountain Section!

**Outstanding
Section
Award!**

This year's *AEG Outstanding Section Award* has been given to our own *Rocky Mountain Section*.

The award will be presented at the Corporate Luncheon at the Annual Meetings on Thursday, November 2.

AEG-RMS Section Member Dave Noe!

Section member Dave Noe passed his thesis defense on October 25, and will be receiving his Ph.D. degree in Geological Engineering from Colorado School of Mines in December. Dave's thesis title is "Engineering Geology of Steeply Dipping Heaving Bedrock, Front Range Piedmont, Colorado." A three-part series of papers from this thesis are being submitted to *Environmental and Engineering Geosciences* for publication.



Dave Noe (center right) with committee members Hal Olsen, Pat Rogers, and Jerry Higgins following his successful thesis defense.

The New 2006-2007 AEG-RMS Officers!

Chair: Liv Bowden
Chair-elect: Steve Compton
Secretary: Margit Kurka

Treasurer: Dawn Schippe
Past-chair: Dwaine Edington

GEO-volution

GEO-volution: The Evolution of Colorado's Geotechnical and Geotechnical Engineering Practice

The 2006 geotechnical seminar, a continuation of the biennial series presented by the Geotechnical Group of the ASCE Colorado Section, CAGE, AEG, and the ASCE Geo-Institute, will be presented on **Friday, November 10th, 2006** at the Sheraton Denver West Hotel located at 360 Union Boulevard in Lakewood. The goal of the seminar is to enhance the technical knowledge of local geotechnical engineers and geologists in areas of current regional interest. This year's theme was chosen to focus on Colorado's storied past, the difficult engineering challenges overcome by its early population, the current state of local geotechnical and geological engineering practice, and ideas that will carry our practice into the future. The presentations will provide perspectives on Colorado's unique geology, on geotechnical and geological engineering for the challenging ground conditions present in Colorado, on emerging trends in the local engineering practice, and on current solutions to Colorado's diverse geo-problems.

Mark your calendars! Click [here](#) for your registration form. [Sponsor and exhibitor](#) registrations are also available.

**"The Evolution
of Colorado's
Geotechnical
and
Geotechnical
Engineering
Practice"**

2006-2007 Upcoming Meeting Presentations

December 15, 2006 (Friday) - Family Night!: TC
Wait - *A Geologist on the Back of a Dogsled*

March 8, 2007 - TBD

**January 11, 2007 - Meeting at the Holiday Inn on
Colorado Blvd:** AEG President Terry West

April 12, 2007 - Student Night! *New Poster Session
Format*

February 8, 2007 - Ray Henn and David Kwiet-
newski - *On Design and Construction of the Lake
Pleasant Water Transmission Rock Tunnel in Phoenix,
AZ*

May 10, 2007 - TBD

Board of Directors

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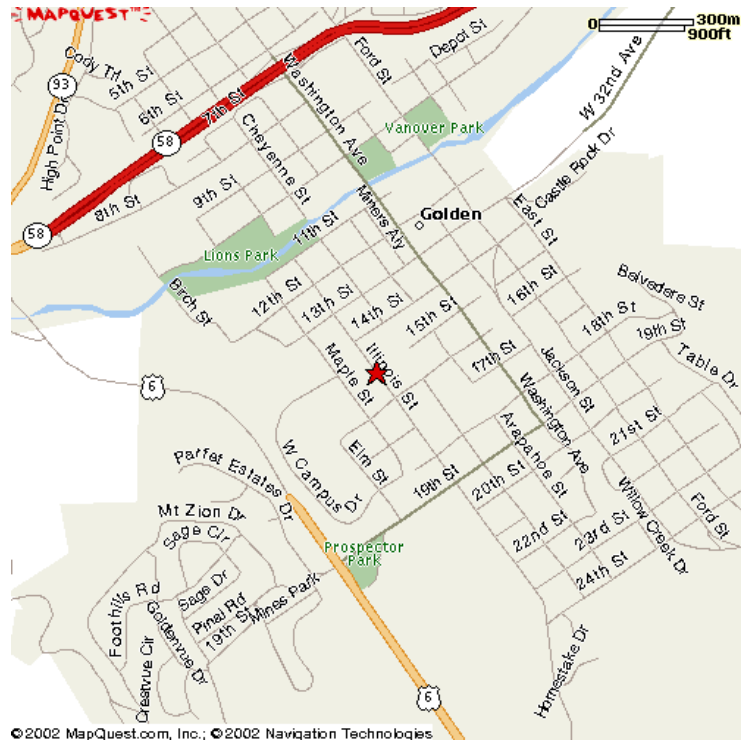
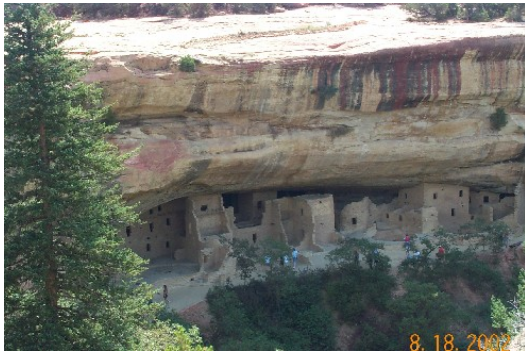
Student Chair

Diana Sitze
student-chair@aegrms.org

Past Chair

Dwaine Edington

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