

News & Notes...

CSU to Host Regional Steel Bridge & Concrete Canoe Competitions In April...

ASCE Colorado State University students have invited regional teams to test their "metal" at the Annual Steel Bridge and Concrete Canoe Competitions to be held in April.

On Thursday through Saturday, April 1-3, 2004, Colorado State University civil engineering students will host the ASCE/American Institute of Steel Construction Annual Rocky Mountain Regional Conference, a competition testing young civil engineers' design skills. During the two-day competition members of the Northern Branch of the Colorado Section ASCE will judge students' ingenuity at designing, fabricating and constructing reinforced steel bridges and full-sized concrete canoes.

The Colorado State ASCE Student Chapter has invited students from 11 other colleges in Colorado, New Mexico, South Dakota, Utah and Wyoming to join CSU students as they test their project designs. The bridges will be assembled and tested Friday, April 2, at 1 PM at the Larimer County Fairgrounds in Loveland, Colorado. Concrete canoe teams will race their boats at City Park Lake in Fort Collins on Saturday, April 3 at noon. The top two finalists of each competition will advance to the National Steel Bridge Competition in Golden, Colorado in May and the National Concrete Canoe Competition in Washington, D.C. in June.

The College of Engineering invites alumni and friends to attend the competition's opening barbeque on Thursday, April 1, at 7:00 PM at the Water Plaza on the Colorado State University campus.

If you are interested in attending the barbeque, please contact Marilee Rowe at (970) 491-5247.

CSM to Host National Student Steel Bridge Competition In May...

The 2004 National Student Steel Bridge Competition (NSSBC) will be held on Friday and Saturday, May 28 & 29, at the Colorado School of Mines in Golden, Colorado. NSSBC is an opportunity for college students from around the nation to compete at designing and building the most efficient bridge. Students are judged on aesthetics, speed of assembly, and efficiency (i.e., minimum deflections under loaded conditions). The competition continually attracts the best and the brightest civil engineering students. This year, the competition will be a little different than past years' competitions in two aspects. First, there will be an outreach program for students in the middle school



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to high school age group. These students will have the opportunity to attend this national collegiate competition and watch the teams build their bridges. The second aspect is an opportunity to help college students network with future employers. Each competing student will provide a resume that will be given to contributing companies. If you or your company would like to help fund NSSBC this year, please contact Candy Ammerman at (303)273-3662, or *cammerma@mines.edu*. Sponsors for NSSBC are the American Institute of Steel Construction (AISC), American Society of Civil Engineers (ASCE), American Iron and Steel Institute, National Steel Bridge Alliance, The James F. Lincoln Welding Foundation, Nucor Corporation, and TXI Chaparral Steel. Committee Chair or member.

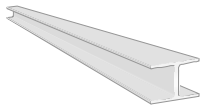
UCD Has Spring EIT & PE Courses...

The University of Colorado at Denver Continuing Engineering Education Program is offering Spring 2004 refresher courses for the EIT and Civil, Electrical and Mechanical Professional Engineers Exams. Contact Colleen Anderson, CU-Denver Continuing Engineering Education Program, Campus Box 115, P.O. Box 173364, Denver, Colorado 80217-3364, (303)556-4907 or via email to *csanders@carbon.cudenver.edu*.

CSM Geotech Finite Elements Course...

The 9th Annual Short Course on Finite Elements in Geotechnical Engineering will be March 15-17 at

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Structural Group Meeting

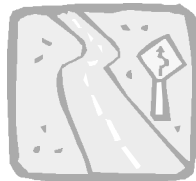
Mike Mohseni, CDOT, will speak on the **rehabilitation of the Castlewood Canyon Arch Bridge**. This innovative project was unique in that it is one of the few times where the superstructure of an arch bridge was completely replaced while leaving the arch ribs in tact. The bridge, built in 1946, had severely deteriorated and needed essentially a complete reconstruction. The arch ribs were first strengthened by wrapping them with Carbon Fiber Reinforced Polymer (CFRP). The deck, girders, spandrel columns and caps were then systematically removed and replaced with pre-cast replacement members. The demolition and reconstruction work was carefully staged so as not to damage the arch ribs due to excessive unbalanced loads.

Geotechnical Group Meeting



Gordon Revey, PE, Revey Associates, Inc., will give a presentation on **No Room for Error – Blasting at Active Dams and Locks**. When improvements are made to facilities at operating dams and locks, situations sometimes occur where hard rock or concrete must be excavated at locations near critical structures or utilities. Fearing damage from blasting, contractors and engineers often explore the viability of using mechanical methods or expansive concrete to facilitate the excavation work. In some cases, the high cost and slow progress rates associated with alternate methods or other limiting conditions make the use of these methods impractical. In these situations, controlled blasting methods can be efficiently used if properly designed and managed. This presentation describes and demonstrates the methods used to successfully apply extremely controlled blasting methods to safely remove concrete and rock at the McAlpine Lock and Dam in Louisville, KY, to blast a concrete lake-tap at Cougar Dam in Oregon, and to fracture-in-place concrete gate towers at the Seven Mile Dam in British Columbia, Canada.

Transportation Group Meeting



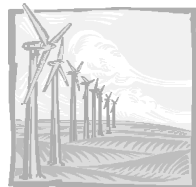
Peggy Catlin, Colorado Tolling Enterprise Director and CDOT Deputy Executive Director, will give a presentation on the **Colorado Tolling Enterprise (CTE)**. The CTE was established in 2002 and will provide a new method for funding needed capacity improvements across the state. The non-profit organization is a division of CDOT and has already determined candidate segments for potential toll projects. Learn more about the CTE and specifics on its future projects.

Water Resources Group Meeting



John McKenzie, Decision Educators Corporation, will give a presentation on **Risk Assessment for Water Resources**. The Boulder and White Rock Ditch and Reservoir Company issued a newsletter in May 2002 describing the availability of water for its shareholders. The Ditch Company investigated the snow pack in its watershed, historical diversions at its head gate and the amount of water stored in its reservoirs. These findings painted a “very pessimistic picture of available water for the growing season.” Absent a model, the Ditch Company was not able to predict the quantity of water available but only speak in generalities. To correct this limitation, the Ditch Company is constructing a model to quantify available water under the context of risk for its shareholders in 2003. The presentation will focus on the use of risk analysis to make objective assessments of water availability during the growing season and then to use this information in a risk model or models.

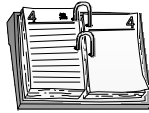
Environmental Group Meeting



James Bush, RG, Pacific Western Technologies (PWT), will give an **Overview of the Rocky Mountain Arsenal (RMA) Superfund Site Remediation**. RMA was once considered one of the worst superfund sites in the country, but it is now well on its way to becoming a wildlife refuge. For over 40 years it manufactured munitions and chemicals. Cleanup began in 1996 and is to end in 2011. The USEPA, in conjunction with the State, is conducting one of the most thorough oversights ever mounted for a superfund site cleanup.

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Finite Elements Course...

the Colorado School of Mines. The course should remove some of the mystique of "black-box" geotechnical software by giving participants an insight into the workings of the finite element for geotechnical analysis. Classical applications will be covered including settlements, seepage, consolidation and slope stability. Participants will receive a copy of the course textbook and all source code. The course blends lectures with supervised computing sessions. For further information call the course instructor, Professor Vaughan Griffiths, at 303-273-3669, or see web site http://www.mines.edu/Outreach/Cont_Ed/fege.htm.

Younger Member Group...

Join the Younger Member Group for our 4th annual Kickoff Party! This year the celebration will be at **The Mynt** in late **January** from **5:30-7:30 PM**. We will provide free appetizers for all attendees. The intent is

to invite our existing and future members to celebrate and introduce the 2004 YMG activities. Please spread the word in your office and invite young engineers that are looking to build their networking skills and friendships within the civil engineering community. We look forward to seeing you there and starting off the new year with a bash!

Some other exciting events on the horizon for the YMG include: a tour of Cheyenne Mountain/NORAD (the US Air Force's highly secure control center for the United States nuclear arsenal) on January 16th and a presentation on March 23rd by members of the Colorado Board of Registration to address the importance of obtaining your license and to answer any questions you may have on the licensing procedure. Please view the YMG monthly newsletter for more details at

<http://www.ASCEcoloradoYMG.org/newsletter.htm>

ASCE Dues Reminder...

ASCE annual dues should have been paid by January 1 to be fully current. The Section encourages you also to pay voluntary Section dues of \$20 to give greater support to the Society in Colorado. Call 800-548-ASCE (2723) if you want to check your status.



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