Spring has sprung and it’s time to select a new Board of Directors for the San Bernardino and Riverside Counties Branch of the Los Angeles Section. The current board members are listed on Page 5. For those who may be unfamiliar with this process, I’ll give a brief summary. Our bylaws stipulate that all board positions, except for President and Past President, must be decided by a nomination process followed by a vote of the branch membership. The current President-Elect will fill the office of President, and the current President moves to the aptly named Past President chair. Our future President, Brandon Reyes, was selected during last year’s vote. Tradition within our branch has been that each officer moves up through the ranks beginning at Secretary. In accordance with that tradition, the board hear-by nominates the following candidates: Michael Sampson as Newsletter Editor, Kenneth Cox as Treasurer, Steven Ledbetter as Vice President, and John B. Rogers as President-Elect.

We are also pleased to nominate Julianna Gonzalez as next year’s Secretary and the newest member of the Board of Directors. Julianna has prepared to serve in this capacity through dedicated service within the Younger Member Forum (YMF) including last year’s President. This year, while also working as the YMF Past-President, she has served the board in the capacity of Assistant Newsletter Editor, writing articles and improving the quality of our monthly newsletter.

Anyone wishing to nominate themselves or others to a board position should submit their nomination to the current President, Edwin Quinonez at eequinonez@rcfllood.org.

...continued on page 4
The Tehachapi Pass is a mountain pass crossing the Tehachapi Mountains in Kern County, California. Traditionally, the pass marks the northeast end of the Tehachapis range and the south end of the Sierra Nevada range. The route is a principal connector between the San Joaquin Valley and the Mojave Desert. The Native American Kitanemuk people used the pass as a trade route before American settlement of the region in the 1800s. The main line of the former Southern Pacific Railroad (now owned by the Union Pacific Railroad and shared with BNSF Railway) was constructed through the pass in the 1870s. This was eventually followed by U.S. Route 466, which is now State Route 58.

...continued on page 4
May 2014 Presentation
ASCE Inland Empire Geotechnical Committee
Soledad Mountain Road Landslide
Mike Miller

On the morning of October 3, 2007, a landslide destroyed portions of Soledad Mountain Road and 8 homes downslope. The landslide was preceded by signs of distress for several months prior to the actual failure; however, on the morning of October, 3, most residents were taken by surprise and were hurriedly evacuated from their homes.

The landslide occurred in an area of mapped ancient landslides and the area had been subject to earth movement (and repair) some 40 years earlier. The western flank of Soledad Mountain has a history of slope instability and significant mapping of this area is available.

The Soledad Mountain Road Landslide initiated years of investigation and litigation and ultimately resulted in a structural repair of the roadway and stabilization of the adjacent residential property.

The analysis causes, and ultimate repair of the landslide will be examined with a discussion of the history of grading in this area that ultimately led to the 2007, failure decades after the first repair.
Editor’s Message

...continued from page 1

We are also accepting nominations for the position of Assistant Newsletter Editor. The Assistant Newsletter Editor is not an elected position and does not carry a vote on the board.

A position on the board is a call to serve. We hope that our activities and programs are beneficial to each of you. We welcome any feedback and comments you are willing to share. If you have ideas or suggestions for the monthly meeting topics, or a technical tour, please talk to a board member. If you have newsletter article ideas or announcements of general interest to your fellow ASCE members, please submit them directly to me or to any of the board members.

Sincerely,

Kenneth Cox,
San Bernardino and Riverside Counties Branch Newsletter Editor

Tehachapi Pass

...continued from page 2

The Southern Pacific Railroad started construction in 1874 after several different sites were considered. Although this route hosted many bridges for the crossings over Tehachapi Creek and more curves and tunnels than other alternatives, it was the one thought to be the best choice.

The Tehachapi Pass Railroad Line had 18 tunnels, 10 bridges and numerous water towers for the old steam locomotives and was the primary factor in the early growth of the city of Los Angeles and the state of California.

The Tehachapi Pass Railroad Line was cut through solid and decomposed granite by about 3,000 Chinese laborers using nothing more than picks, shovels, horse drawn carts, and blasting powder. Completed in less than two years, it was part of the final line of the first railroad to connect San Francisco with Los Angeles.

The single-track line, essentially unchanged through the years, remains in use today and accommodates an average of 36 freight trains per day. The Tehachapi Pass grade averages 2.2% in gradient across its 28-mile length and contains the Tehachapi Loop, one of the most popular railfan sites in the country. The unique loop provides an entry tunnel from which the track travels in a complete counterclockwise loop that passes over the tunnel. The loop is 3,799-feet long, with a diameter of about 1,210 feet.
LOS ANGELES · ORANGE COUNTY
SAN BERNARDINO/RIVERSIDE · SAN DIEGO

present

TORNEO PREMIER DE FUTBOL-
COPA DE INGENIEROS CIVILES

aka

2014 ASCE YMF SOUTHERN CALIFORNIA
SOCCER TOURNAMENT

SKI BEACH PARK
Vacation Road
SAN DIEGO
92109

SAT, MAY 10TH
9:30am-3:00pm

9:30a Overview of Rules
10:00a Round 1: Round Robin
       (3 matches)
12:20p Lunch
       (BBQ Available for $5)
1:00p Semi-Final Matches
2:00p CHAMPIONSHIP GAME

We need you on OUR team!
Come join us for some friendly games of
soccer as we go up against representatives
from all over SoCal! There will be plenty of
new people, plenty of shiny Sun Diego, and
plenty of good times. Friends and family are
welcome to come and watch. We need
players of ALL skill levels. That means YOU!

To RSVP and join the SB/RIV team, email
David at djcortese@rcflood.org
Local Employment Opportunities

The Survey Division of the Riverside County Transportation Department is currently recruiting for the position of Engineering Technician I. This position will perform various land surveying functions, both in the field and in the office. The job description for the position is available at the Riverside County Human Resources Department website: [www.rc-hr.com/Careers/JobDescriptions.aspx](http://www.rc-hr.com/Careers/JobDescriptions.aspx)

TKE Engineering, Inc. is seeking a Civil Engineer to join our dynamic team of professionals. The ideal candidate will have 2+ years of experience and be ready to work in a fast-paced, professional environment under the supervision of senior staff. For more information, or to apply, please visit: [www.tkeengineering.com/#!employment-opportunities/c16fg](http://www.tkeengineering.com/#!employment-opportunities/c16fg)

CASC Engineering and Consulting is a multi-disciplined civil engineering firm currently accepting resumes for Senior Designer I in our corporate office. The position requires a minimum of 12 years of experience with knowledge of land development design; including grading, street, sewer, water, and storm drain. Plan production utilizing latest version of AutoCAD and CIVIL 3D software is required. Competitive benefits package. EOE Visit our website at [www.aei-casc.com](http://www.aei-casc.com)

**DESIGN ENGINEER I**

CASC Engineering and Consulting is a multi-disciplined civil engineering firm currently accepting resumes for Design Engineer I in our corporate office. The position requires a minimum of 2 years of experience with knowledge of land development plan preparation; including grading, street, sewer, water, and storm drain. Plan production utilizing latest version of AutoCAD is required and CIVIL 3D software is preferred. BS in Civil Engineering is required with an E.I.T. or ability to obtain within 1 year. Competitive benefits package. EOE Visit our website at [www.aei-casc.com](http://www.aei-casc.com)

Send your resumes to: HR Manager, 1470 E. Cooley Drive, Colton, CA 92324 or e-mail to mfurlong@aei-casc.com or itaylor@aei-casc.com
Joint Broomball Event: Ice-Travaganza
March 22, 2014

On a late Saturday night, March 22 2014, an overwhelming turnout of over thirty people participated in our Joint Broomball Event held at the Pasadena Ice Skating Rink hosted by the San Bernardino/Riverside, Orange County, and Los Angeles Younger Member Forums. This group also included ASCE student chapter members representing Cal Poly Pomona and USC. For those of you who are not familiar with broomball, imagine a modified sport of hockey by replacing ice skates, hockey sticks, and a puck with regular walking shoes, brooms (or in our case, some sort of paddle), and a rubber ball, respectively. After dividing the group, the two teams clashed into competitive mode for a two hour course of fun, intense, and back breaking competition, literally! Similar to dating, people were initially timid; sensing each other’s personality type, getting use to walking and staying balanced with the ice beneath their feet, figuring out where they wanted to play (offense, defense, or both), and how to use the paddle to hit the balls. To encourage goals and ball possession, we had two balls in play during each game. Craziness! But by the second game, the shyness evaporated from everyone’s face and was replaced with their game face, “Grrr”! There were some awesome passes, great defense, nice blocks, splendid goals, remarkable goal keeping, sweet footwork moves, tremendous teamwork, and of course, spectacular slips and falls on the ice. In the end, the black team beat out the blue team, 2-0. But in the spirit of teamwork and competition, we were all winners! Some of us with spectacular tumbles even brought home black and blue memorabilia and wore it proudly for the next few days. Ouch! Thanks again for all those who participated and helped to make this event happen. We couldn’t have done it without the support of all the younger member groups. I would like to especially thank San Bernardino/Riverside and Orange County YMFs for making the trek out to Pasadena, a long distance drive. We really appreciate your commitment to showing up and playing hard. And lastly, do I hear a rematch?!

Check out some of the game play photos as captured by our skillful and exclusive MLAB historian, Paul Choy at https://plus.google.com/photos/109011033072182998218/albums?banner=pwa
2013-2014
BOARD OF DIRECTORS

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matthew.addington@cityofrc.us

May Meeting
Statewide Drought

Celeste Cantú, General Manager
Santa Ana Watershed Project Authority

Celeste Cantú will be providing us her perspective on the state-wide drought, the immediate and potential long term effects, and what will it take to address this challenge.

Date: Wednesday, May 14, 2014
Time: 11:30am to 1:00pm
Location: SAWPA Office  
11615 Sterling Avenue  
Riverside, CA 92503
Cost: $10 members w/ RSVP
$15 non-members or no RSVP
$5 students

Directions: Westbound Route 91: Take Exit 55A, West on Magnolia, left (south) on Pierce one block, left again to SAWPA Headquarters at 11615 Sterling Avenue. Eastbound Route 91: Take Exit 54, south on Pierce Street. Cross Magnolia, continue one block then left on Sterling Avenue as above.

Tour: After lunch, at 1:00 PM, a tour of the Arlington Desalter, adjacent to SAWPA headquarters, will introduce members to this Western Municipal Water District facility, constructed in 1990 and expanded in 2004. The facility treats local groundwater to provide high quality potable water for the region. Please make sure to wear closed toe shoes – no heels or open toes – for safety precautions.

Deadline: Please reserve by May 9, 2014

Additional Info: Edwin Quinonez  
eequinonez@rcflood.org  
(951) 955-1345

www.asce-sbriv.org • @ASCESBRIV on Twitter
Engineers aren't boring people, we just get excited over boring things.

~Anonymous
“Here Comes the Boom!” PSBC 2014 Impromptu Event
Jacqueline Duran Aubrecht, E.I.T

On February 15th, during E-week, ASCE Los Angeles YMF in conjunction with Orange County and San Bernardino/Riverside Counties YMF Chapters hosted the 20th Annual Popsicle Bridge Competition at Cal State University, Northridge. Hundreds of local high school students competed in the full-day event by presenting their bridge design to a panel of local engineering professionals, testing their bridge strength on a loading machine, and participating in an impromptu event.

San Bernardino/Riverside County YMF organized this year’s impromptu challenge “Here Comes the Boom!” Students were asked to construct a crane and to see how heavy a load it can lift. Each team was provided with a donated shoebox, three strips of cardboard, paper clips, three pencils, a pair of scissors, 4-ft of string, a cup and a roll of tape. After a brief introduction of the main components of a crane (boom, hook, cable, crank) the students had 45 minutes to brainstorm and construct. The teams were then judged on creativity, performance, aesthetics, implementation of materials and Q&A of concepts. Given all the same materials and little preparation, no two cranes were alike and many of the cranes lifted a significant amount of weight before deforming.

This successful event would not have been possible without the help of the PSBC Planning Committee, the volunteers and the YMF members/friends who donated all 64 used shoeboxes. I would also like to thank Melissa Barbosa and Mark Swanson for all their support during this event.
FAMILY ACTIVITIES
SATURDAY, MAY 10, AT THE COUNTY MUSEUM

Meet the crews that help us keep safe

LIGHTS! SIRENS! SAFETY!

Saturday,
May 10, 2014
10 a.m. to 2 p.m.

Free!
in the museum parking lot

Public Works
Building for today. Planning for tomorrow.

Saturday, May 10, • 10 AM to 3 PM.

Join the County Department of Public Works and the American Society of Civil Engineers—Younger Member Forum for some hands-on exploration and experiments.

• Create a glider
• Build a toothpick bridge
• Explore with the storm drain robot
• Find yourself with the County Surveyor
• Recycle with Solid Waste Management
• Enviroscape with Environmental Management
• Photo ops with a snowblower!

All activities included with paid museum admission
Awards and Accolades

Several of our outstanding members received recognition for the dedicated service to ASCE. Seema Shah-Fairbanks is the 2014 ASCE Outstanding Faculty Advisor for Region 9. Chandni Patel received the 2014 ASCE Student Leadership Award. Congratulations Seema and Chandni! We owe you a debt of gratitude. It is the hours of dedicated service, generously given, by engineers like you that create a strong and vibrant engineering community. Thank you!

April 2, 2014

Seema Shah-Fairbanks, Ph.D., P.E., M.ASCE
ASCE Student Chapter Faculty Advisor
California State Polytechnic University, Pomona
Civil Engineering Department
3801 W. Temple Avenue
Pomona, CA 91768

RE: 2014 ASCE Outstanding Faculty Advisor Award for Region 9

Dear Seema:

Congratulations! It is my pleasure to inform you that the ASCE Committee on Student Members has selected you to receive the 2014 ASCE Outstanding Faculty Advisor Award for Region 9. In recognition of your achievement, a plaque is being sent to your Region Director. Please contact Jennifer Epp to arrange for this award to be presented to you.

You were chosen for your outstanding work and dedication as a Faculty Advisor. You have demonstrated your passion and commitment to the success of the students in your chapter. Thank you for your hard work and the support you have given them.

On behalf of the ASCE Committee on Student Members, please accept my congratulations to you on this accomplishment. It is my pleasure to recognize you and your outstanding efforts. Thank you for your continued support of ASCE student programs.

Sincerely,

Leslie Payne, AFF, M.ASCE
Chair, Student and Younger Members Program

cc: Francesco Nato, Ph.D., P.L.S., Chair, Civil Engineering
Jennifer E. Epp, P.E., M.ASCE, Director, Region 9
Yazdan T. Emran, P.E., M.ASCE, President, Los Angeles
Andrea Gonzalez, EIT, A.M.ASCE, Practitioner Advisor

April 9, 2014

Chandni Patel, S.M.ASCE
645 Glendora St., Apt. 4
Glendora, CA 91740

RE: 2014 ASCE Student Leadership Award

Dear Chandni,

Congratulations! On behalf of ASCE’s Committee on Student Members, it is my pleasure to inform you that you have been selected to receive the 2014 ASCE Student Leadership Award. In recognition of your achievement and service to ASCE, a plaque is being sent to your Faculty Advisor to present to you.

I extend my personal congratulations to you on this accomplishment. It is the enthusiasm and positive role-modeling of student leaders like you that inspire others and advance the development of strong, active student organizations.

Sincerely,

Leslie Payne, AFF, M.ASCE
Director, Educational Activities

cc: Seema Shah-Fairbanks, Ph.D., P.E., M.ASCE, Faculty Advisor
REGION 9, LOS ANGELES SECTION
SAN BERNARDINO & RIVERSIDE COUNTIES BRANCH

Storm Water Committee

Wednesday May 14, 2014

Topic: Wetlands, Waters of the United States, and Waters of the State - How This Affects Your Projects and Programs

Synopsis:

Last month the EPA and ACOE published new guidance concerning Wetlands and Waters of the United States. What does all this mean? What is needed to efficiently obtain regulatory approval for Projects? What does the new guidance mean for schedule and approval? Mr. Lincoln Hulse, Natural Resources Division Manager/Principal, with NOREAS Inc. is going to present on these issues.

Time:  
6:00 - 6:30 pm: Check-In/Networking  
6:30 - 7:00 pm: Dinner  
6:45 - 7:15 pm: Presentation  
7:15 - 7:25 pm: Q&A  
7:30 pm: Adjournment

Location:  
Hidden Valley Golf Course  
Villa Amalfi Restaurant  
10 Golf Course  
Norco, CA  92860  
(951) 737-1010

Cost:  
Members $35 prepaid; $40 at the door (with reservations); Non-members and walk-ups $45.

Send your request for a vegetarian meal to Cynthia.Gabaldon@cgrme.com

Reservations: RSVP by May 12, 2014 at 12 noon to Cynthia.Gabaldon@cgrme.com. No refunds after this date. Include the names of all persons attending with membership number (if applicable). Your advance reservations, made and honored, are essential to fulfilling our catering commitment. No shows will be billed. Seating is limited and payment at the door will be accepted based on availability. Reservation response is still necessary.

By mail, please make checks payable to “ASCE Stormwater Committee” and mail to:

Bill Flores Jr.
ASCE Stormwater Committee Chairman
HDR Engineering, Inc.
2280 Market St. Suite 100
Riverside, CA 92501

Parking:  Free parking is available.
Wood? Steel? Reinforced concrete? No, no and no. Toothpicks and gumdrops!! That’s right. During Engineers Week 2014, Redlands 8th-graders learned that there are more uses for these two items than simply using one to get the other out of one’s teeth. The San Bernardino-Riverside Branch of the American Society of Civil Engineers, Younger Member Forum (ASCE-YMF) hosted a bridge building competition at Moore Middle School and Clement Middle School on February 18th and 19th, respectively. The students competed in teams to build the strongest bridge made solely from toothpicks and gumdrops.

ASCE-YMF began each class period with a PowerPoint presentation, educating the students about the different branches of Civil Engineering, primarily the structural branch, and then focusing on bridges. Once students developed an understanding of the basic function and components of a bridge, they were then given a brief lesson on tension and compression forces. Using the truss bridge configuration as an example, the budding engineers learned how structural components are used to distribute and transfer each force throughout a bridge. After the presentation, the teams were then given the green flag to begin construction of their very own truss bridges using the knowledge they were given and the provided (peculiar) building materials.

The basic principles of structural engineering were witnessed firsthand by students during the competition, not only while they raced against the clock to assemble their bridges, but especially when each bridge was load tested upon completion. Once constructed, each group’s bridge was placed on a wooden testing apparatus consisting of two vertical supports spaced eight inches apart. 1-ounce weights were then added one by one to the center of each bridge. Students gathered around to witness the roles played by tension and compression forces in the deflection, and ultimately failure, of their structures. Upon collapse, each team was then explained why their bridge failed in the location it did and what measures could be done to strengthen the relatively weaker area. After their first load test, teams were then given the choice of either recording their resulting load capacity, or going back to their workstation and modifying their bridge using the principles they learned in an effort to obtain a higher score. The team with the bridge that held the most weight in each class period was rewarded with candy and other locally sponsored goodies. The overall winning team from each school can be seen below, alongside their well-constructed engineering marvels. Impressive work everyone!

On behalf of ASCE-YMF, I would like to thank teachers Colleen Sumner, Heather Wingo, and Teri Daumeyer of Moore Middle School, and Mike Arthur of Clement Middle School for allowing us to be a part of their students’ school year. A special thanks to Deborah Severo, Coordinator of Career Programs, of Redlands Unified School District, for coordinating the event with each participating school. Congratulations again to the winning teams!
Professional Directory

AECOM

Tylin International

Gary Antonucci, P.E.

3550 Una Street, Suite 127

Riverside, California 92507

www.tylin.com

telephone: 951-788-4498

mobile: 909-564-9793

fax: 951-788-4998

e-mail: gantonucci@tyle.com

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22521 Highway 18, Apple Valley, Ca. 92307 | 760-241-6146

Available Space

Please see contact information below to have your company’s business card displayed here.

If you’d like to have your business card or company information listed in the Professional Directory, please contact the Branch Treasurer, Steven Ledbetter, at (951) 680-0440 or sledbetter@tkeengineering.com
May 2014

May 10  YMF Joint Soccer Tournament and BBQ in San Diego
May 10  Public Works Day - K-12 Outreach Booth at San Bernardino Museum
May 12  ASCE Orange County - Overcoming Odds
May 14  General membership meeting - California Drought
May 14  Geotechnical Committee Dinner Presentation
May 14  Storm Water Committee Dinner Presentation
May 17  ASCE Orange County - first annual Jog-A-Thon
June 21  YMF Turnaround Fundraiser $35/person

Membership Information

Type of membership and Annual Dues (national)

Students: Free
Associate member: $50 per year of baccalaureate degree and first year after, then incremental increases to $225 over five years.
Member: $225
Affiliate: $225
Section (Branch) Dues: $45

National ASCE Student Membership is now FREE! Those who have chapters or clubs still must be a member of them before joining National. Log onto https://www.asce.org/online/, fill out the short application and instantly become a member of ASCE, or call 1-800-548-ASCE (2723)

Online Membership renewal available. Go to: https://www.asce.org/renewal/inforenewal.cfm. You need your membership number. All payments must be made with a major credit card. An e-receipt is transmitted to the member upon completion of the transaction.

NEWSLETTER INFORMATION

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