

ASCE

AMERICAN SOCIETY OF CIVIL ENGINEERS SAN BERNARDINO & RIVERSIDE COUNTIES BRANCH LOS ANGELES SECTION, REGION 9 – SINCE 1953

PRESIDENT'S MESSAGE



This is my last newsletter and it has been a great pleasure to serve as your Branch President. Overall, it was an excellent year, and I would like to thank the entire Board for their continuous dedication, and for their help in coordinating the wide range of events, from technical tours, general meetings, high school outreach, and happy hours, to our end of the year golf tournament, at which I hope to see many of you!

Starting next month I will be passing the baton to the Incoming President, Brandon Reyes, who has many exciting ideas in store for you. Brandon lead the board in a brainstorming session to plan the upcoming year. I encourage you to let Brandon or any other Board member know how we can better serve you. Your Branch Board is always open to feedback. One improvement the Board is continuing to work on is the Branch website. Our webmaster updated the site

layout last month and it can be accessed for activity and event updates: http://www.asce-sbriv.org/asce_new/index.html. However, the new Board and Committee Chairs will continue to work with the webmaster on finding ways to improve its functionality and effectiveness.

I would also like to quickly point out a change in next year's Branch Board. Our current Vice President, John Rogers, was approached by the LA Section and has been nominated to serve on their Board. John has graciously accepted the honor and will be serving on the LA Section Board for the next three years as President-Elect, President and Past President. Congratulations, John! So what will this mean for the Branch Board? John's transition to the LA Section leaves the President-Elect position vacant, and per our Branch Bylaws, this vacancy is to be filled by the Vice President, in this case, Steven Ledbetter. The remaining positions have been appointed by the Board as follows: Ken Cox as Vice President, Michael Sampson as Treasurer, Julianna Gonzalez as Newsletter Editor, and Melissa Barbosa (current YMF President) as Secretary. With John serving as a voice for our Branch on the LA Section Board, and with the energized mix of private and public sector professionals serving on our Board next year, I have a feeling our Branch will be rising to another level in the years to come.

Once again, it has been great experience serving you, and thank you all for your continued support and participation in our Branch.

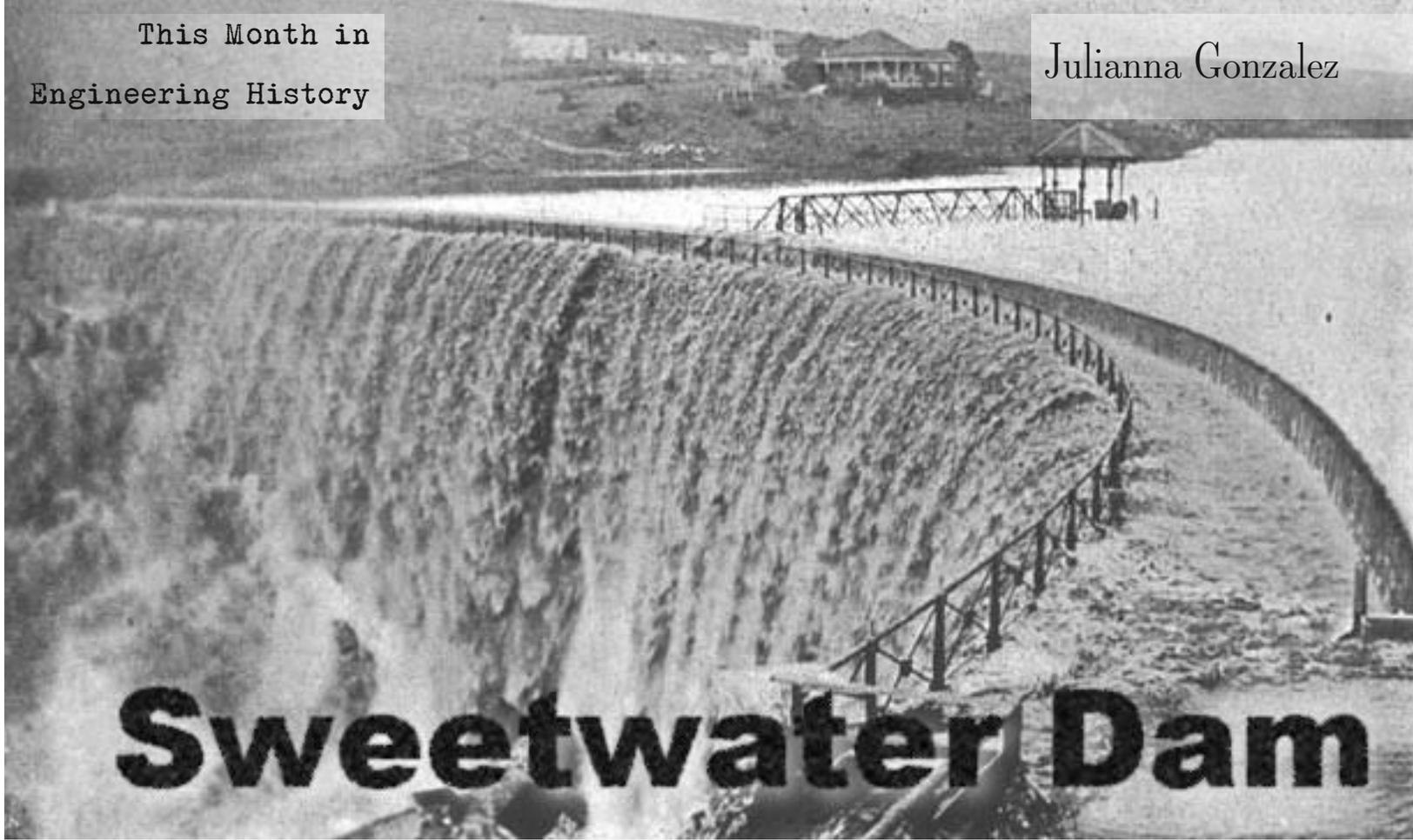
Sincerely,

Edwin Quinonez, P.E.

San Bernardino and Riverside Counties Branch President

September 2014 NEWSLETTER





Sweetwater Dam

The Sweetwater Dam spans the Sweetwater River in San Diego County, California. At 108-foot-high and 700 feet long, with a thickness of 46 feet at the bottom, the masonry arch dam impounds the 960-acre Sweetwater Reservoir. The dam is operated in conjunction with Loveland Dam and its reservoir approximately 19 miles upstream for flood control purposes. The dam serves as a backup water storage facility for the San Diego metropolitan area in the case of drought, and provides some local municipal water. The reservoir serves for wildlife management and recreation among other uses.

When completed in 1888 to a height of 90 feet, Sweetwater Dam was the tallest masonry arch dam in the United States, and it led to many others of the same basic design. The original construction began in November 1886 under the direction of Frank E. Brown (civil engineer for Bear Valley Dam) with the rubble-masonry thin-arch design being 50 feet in height. Subsequently, the owner of the water system called upon civil engineer James D. Schuyler to continue and complete the project. Although the field of hydrology was very new and not fully understood at the

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SoCal Inland Empire
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Upcoming Events:

CGEA Regional Dinner
Meeting, October 7, 2014

LOS ANGELES SECTION, REGION 9

San Bernardino & Riverside Counties Branch – Geotechnical Committee

SoCal Inland Empire Geo-Institute Chapter

FOUNDED 2010

October 2014 Presentation

ASCE Inland Empire Geotechnical Committee

Los Angeles County Geotechnical Guidelines on Stormwater Infiltration

Yonah Halpern, PE, Los Angeles Department of Public Works

Low Impact Development (LID) stormwater infiltration is a strategy used to reduce runoff from a site using stormwater quality control measures that retain runoff. Compliance with the Los Angeles County LID Ordinance (Title 12, Section 12.84) is required before the issuance of a building or grading permit. On June 30, 2014, the Geotechnical and Materials Engineering Division updated guidelines for the geotechnical reports required for all proposed LIDs with an infiltration component.

An outline of the updated guidelines will be presented. Guidance is provided regarding general site requirements, subsurface exploration, laboratory testing, soil classifications, infiltration testing procedures, acceptable correction factors, and discussion. The objective is to facilitate stormwater infiltration in areas of Los Angeles County where ground conditions are suitable.

Technical Presentation:

Date: October 8, 2014

Time: 6:00 - 6:45 PM Registration and socializing

6:45 - 7:15 PM Dinner

7:15 – 7:30 PM Sponsor Presentation – Fred Yi, GeoAdvanced

7:30 – 8:30 PM Technical presentation – Yonah Halpern, LACoDPW

Location: Zendejas Mexican Grill, 8106 Milliken Avenue, Rancho Cucamonga

Sponsor: This presentation is sponsored by GeoAdvanced

Cost: \$30 members w/ RSVP, \$35 non-members or no RSVP, \$10 students

Registration and Additional Info: RSVP by October 6, 2014 to Jeff Waller at:

jwaller@kleinfelder.com

Future Meeting Dates:

We have scheduled our future meetings for next year for February 18, and for May 13 so please mark your calendars. The February 18 presentation will be on Tunneling, presented by Richard Escandon of Kleinfelder.

Board Elections:

At our upcoming meeting, we will ask for your vote for next year's officers. We would like to announce the nomination of Robbie Warner from Geo-Logic Associates to join the board. The 2015 officers would be as follows: Past Chairman – Robert Russell, Chairman – Maihan Noorzay, Vice Chairman – Monty Schultz, Treasurer – Jeff Waller, Secretary – Robbie Warner.

Sweetwater Dam

...continued from page 2

time, Mr. Schuyler determined that the area of the watershed tributary to the dam, at about 186 square miles, justified a higher structure that would increase the reservoir capacity by five times the original design. He noted that the height change from 50 to 90 feet and the change to a gravity arch design now relied on the arch design for its "factor of safety", but felt confident with the foundation and construction methods. The volume of water expected to be stored was 18,636 acre-feet. There were subsequent modifications after the dam's original completion, with the majority completed by 1940.

In the winter of 1895, heavy rains caused the Sweetwater River to rise to record levels, and the dam's outlets and spillways were unable to handle the excess inflow of water. For more than 40 hours during the peak of the storm, the reservoir overtopped the dam by nearly two feet, spilling over in a massive waterfall. The floods caused severe damage to the abutments of the dam and eroded the riverbed below, but the dam survived. In response to the danger of future floods, work began in 1910 to raise the dam to a height of 110 feet. To do this, a 20-foot -tall vertical masonry parapet was added to the top of the dam, the spillways were reconstructed, and the intake tower was raised. The reconstruction was finished in 1911, and gave the reservoir an additional capacity of about 4,000 acre feet.

In the winter of 1915, southern California was experiencing a devastating drought that had drained area reservoirs to record low levels over more than three consecutive years, causing massive agricultural and ranching losses. Residents of San Diego County were so desperate that the city of San Diego hired a man named Charles Hatfield, known as "the Rainmaker". The city promised Hatfield \$10,000 if he could make it rain significantly by the end of the year. Hatfield's venture was apparently a success, but it is not known what actually caused the massive floods that tore through the county beginning December 9, the day after he started his inconspicuous scheme.

More than thirty-nine inches of rain fell during the following month, and storms continued deluging the county well into early 1916. The area's rivers and streams rose to their highest recorded levels in years. More than 200 bridges were washed out, entire communities were swept away, levees collapsed, and valleys were inundated. All the bridges along the San Diego, Sweetwater and Otay rivers were washed out except for a rail bridge that was left standing alone with its ends missing. The earthen Otay Dam, several miles southeast of the Sweetwater on the Otay River, burst on January 27 sending a wall of water into southern Chula Vista. Flooding deposited so much sediment that the southern end of San Diego Bay was filled with it – much of the sand remains today in the form of shoals that must be periodically dredged to accommodate boat traffic.

The Sweetwater River rose until it reached a peak flow of 45,500 cubic feet per second on January 30, 1916, and though the height of the dam had been increased and the capacity of the spillway enlarged; this did little to prevent it from overflowing. The reservoir overtopped the dam crest by an estimated 3.5 feet in an event similar to, but far larger than 1895. The river breached the north abutment of the dam, then soon after the south end just left of the spillway went with it. Like in 1895, the main structure of the dam was not heavily damaged but the river eroded enough material around the structure to allow two-thirds of the reservoir to drain. The failure of the dam caused extensive damage downstream, including the destruction of over 15,000 ft of Sweetwater Water Co. pipeline, all railway track and electric utility line. The dam was subsequently rebuilt and an additional spillway added to pass future floods.

In 2014, after 126 years of service, this dam was still serving its original purpose of storing water for domestic and irrigation use by the citizens of National City, Chula Vista, and Bonita. Sweetwater Dam now stands 127 feet high with a crest length of 700 feet that provides over 27,000 acre-feet of storage for local and imported (via San Diego County Water Authority) water. This is a one-year water supply for the entire service area population of nearly 177,000 people. This dam is a testament to its gravity-arch design, the construction materials and techniques of the era, and the design and construction engineers who worked on it.

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Geotechnical Committee Officers

The Geotechnical Committee and GeoInstitute is proud to present the slate of officers for the 2014-2015 year to the members for a vote:

Chairman: Maihan Noorzay (CHJ Consultants)

Vice Chairman: Montgomery (Monty) Schultz (Petra Geotechnical)

Treasurer: Jeff Waller (Kleinfelder)

Secretary: Robbie Warner (Geo-Logic Associates)

Past Chairman: Robert Russell (Giles Engineering)

Robert R. Russell, P.E., G.E.

2013-2014 Chairman

Local Employment Opportunities

CLE Engineering is seeking an Intern or entry-level Civil Engineering student or recent graduate. Basic AutoCAD skills required, passed EIT or preparing to take exam. Experience, college curricula or interest in learning Land Surveying; boundary, topo and construction staking; Hydrographic Surveying, Ports, Harbors, Rivers; Environmental permitting and regulation; and Land Development Design. Please submit letter of interest and resume to John B. Rogers, PE, F.ASCE at jrogers@cleengineering.com

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

APWA/IE Seminar

Construction Management of Public Works Projects



Thursday, October 9, 2014

8:30 a.m. to 4:30 p.m. | (8:00 a.m. registration)



Corona City Hall

400 South Vicentia Avenue, Corona

Featured Topics

- Budgeting for Projects with Out-sourced CM and Inspection
- Selecting CM and Inspection Consultants
- Contract Documents Coordination
- Successful CM Procedures, Project and Documents Controls
- Quality Assurance Best Practices
- Federal Funds – Standard OPs or Special Ops ?!
- Change Management / Claims Avoidance

Instructor

Dino D'Emilia, PE
VP, Construction Services | AndersonPenna

Registration

- \$120 per person includes class notes, breakfast, lunch and refreshments
- \$140 per person for reservations made after October 2



[Click Here to Register](#)

Registration on a **'First Come, First Served'** Basis | Limited to **45** Attendees
Due to space limitations, walk-ins may not be accommodated

Registration method: Click on the registration button to register securely online. Once online, there are two payment options (1) online **credit card** option and (2) **mail check** option. You may also register and mail your payment (*payable to APWA Inland Empire*) to the following:

Siti Sabari | CASC Engineering and Consulting | 1470 E. Cooley Drive, Colton, CA 92324-3933

Name _____ Employer _____

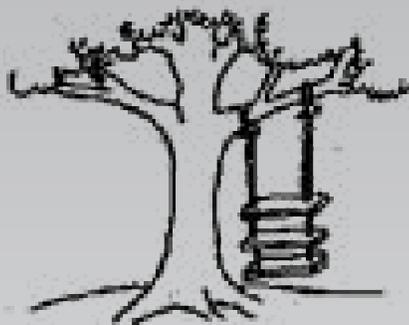
Address _____ City, State, Zip _____

Phone _____ Email _____

Happy Hour - August 13

Look at all these happy faces! Is one of them yours? No?! You could have been this happy if you had attended the ASCE San Bernardino – Riverside Branch Happy Hour on August 13th. The happy hour convened at about 6 pm at Heroes Restaurant and Brewery in Riverside. If you missed it (and have been sad ever since) stay tuned. The branch is planning more happy hours during the upcoming 2014-2015 year. Be Happy: don't miss the next one!

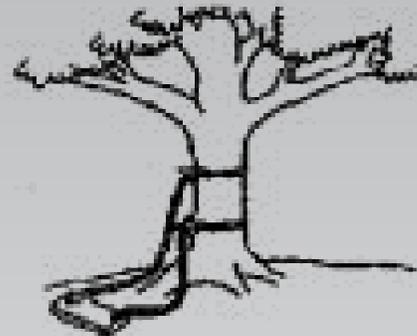




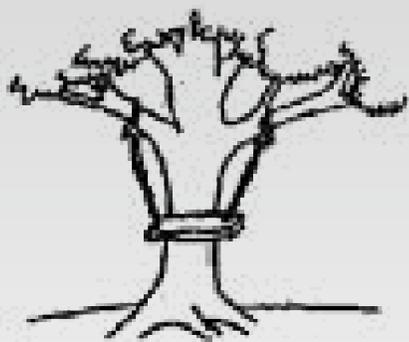
**As proposed
by the project
sponsor.**



**As specified
in the project
request.**



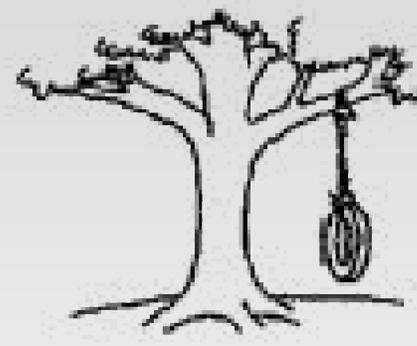
**As designed
by the senior
architect.**



**As produced
by the
engineers.**



**As installed at
the user's
site.**



**What the
customer
really wanted.**

2ND ANNUAL
ASCE
 SAN BERNARDINO/RIVERSIDE BRANCH
 AND YOUNGER MEMBER FORUM
 SCHOLARSHIP GOLF TOURNAMENT

HIDDEN VALLEY GOLF CLUB
 10 CLUBHOUSE DRIVE, NORCO, CA 92860
FRIDAY, SEPTEMBER 19, 2014

CHECK IN, BOX LUNCH, AND DRIVING RANGE AT 11:00 AM - LOAD CARTS AT 12:30 PM
 SHOTGUN START AT 12:45 PM - BANQUET DINNER AND RAFFLE AT 6:00 PM
 ENTRY FEE \$100 PER PERSON - STUDENTS \$75 - FOURSOME \$400

SPONSORSHIP PACKAGES AVAILABLE

PLATINUM \$1500	GOLD \$1000	SILVER \$500
<ul style="list-style-type: none"> ▪ 2 GOLF FOURSOMES ▪ TEE BOX SPONSORSHIP ▪ ASCE POLO SHIRT FOR EACH PLAYER ▪ LOGO ON PROGRAM AND EVENT BANNER ▪ BANQUET DINNER SPONSOR ▪ RESERVED SEATING AND 5-MINUTE COMPANY SPOTLIGHT/ PRESENTATION AT BANQUET DINNER 	<ul style="list-style-type: none"> ▪ 2 GOLF FOURSOMES ▪ TEE BOX SPONSORSHIP ▪ LOGO ON PROGRAM AND EVENT BANNER ▪ RESERVED SEATING AT BANQUET DINNER 	<ul style="list-style-type: none"> ▪ 1 GOLF FOURSOME ▪ TEE BOX SPONSORSHIP ▪ LOGO ON PROGRAM AND EVENT BANNER

OTHER SPONSORSHIP OPPORTUNITIES AVAILABLE

- | | |
|---|---------------------|
| ▪ PRIZE HOLE SPONSOR \$250 (CLOSEST TO THE PIN, LONGEST DRIVE, AND PUTTING CONTEST) | ▪ RAFFLE PRIZES |
| ▪ TEE BOX SPONSOR \$200 | ▪ PROMOTIONAL ITEMS |

TOURNAMENT INFORMATION: STEVE LEDBETTER, 951-680-0440, SLEDBETTER@TKEENGINEERING.COM
 SPONSORSHIP COORDINATOR: MAYRA CABRERA, 951-315-3903, MAYRA.A.CABRERA@ATT.NET

SBR YMF President's Message - August 1, 2014

Melissa Barbosa

I hope everyone had a great 4th of July and cheers to great summer! This month I would like to take the opportunity to personally thank my board of officers they have done an awesome job this year putting together excellent events.

Some key highlights from last quarter include: Community Service events, Painting a house in Jurupa Valley where volunteers donated their time to really help out the community; a Technical Presentation to our members on the Interstate 15 & 215 Caltrans Design-Build project in the Inland Empire, a \$324 million project to modernize the interchange and relieve traffic congestion; the annual ASCE YMF Membership Booth at the Pomona Fairplex; and a social mixer "we survived the test" at Warehouse Pizza in La Verne after the PE Exam.

In May, we had our first ever Order of the Engineer Ceremony at Cal Poly Pomona, we had a great turnout with over 50 people; a joint Soccer Tournament in San Diego; and a K-12 Student Outreach event at the San Bernardino Museum.

In June, we held elections for the next fiscal year's YMF board; held a community service event - a Relay for Life Walk in Rancho Cucamonga - a team event to fight cancer; and held our first ever Turnaround to Stateline for the day.

This quarter three of my favorite events were the Order of the Engineer, the Stateline Turnaround Trip, and the Branch Award Luncheon where I received an Outstanding Younger Civil Engineer Award & Plaque (definitely very exciting & humbling). At all three events we had a mix of professional, students, professors and board members from the industry in both the public and private sector at both events. The Stateline event was a lot of fun, over 40 members joined us for a memorable day. I heard positive feedback all day. I'd like to give a special thanks to Andrea Gonzalez, SB/R YMF Cal Poly Pomona Practitioner (Order of Engineer Event) and Mayra Cabrales, SB/R YMF Fundraising Coordinator (Stateline Turnaround). You two did an outstanding job! Your charming smiles welcomed everyone!

We hope you have taken advantage of all our past quarter's events. If not, it's never too late! Join us for our future events: The month of August & September is a planning period for SBR YMF to transition to the new board.

A few upcoming events lined up include: Joint YMF Olympic Games - August 23, 2014 in Los Angeles (egg toss, water balloon toss, 3-legged race, ultimate Frisbee & BBQ) and a Golf Tournament Fundraiser with the SBR Branch on September 19, 2014

I would like to personally thank all of you for your commitment to ASCE. Your membership plays a vital role in our association. ASCE provides awesome opportunities to connect with professionals, participate in community outreach events, and attend technical conferences.

I encourage you to join us at our 2nd Annual Golf Tournament this year at the Hidden Valley Golf Club in Norco on September 19, 2014. Start planning your foursome, or join as a single, all are welcomed to attend. The money raised will go directly to Cal Poly Pomona and Cal Baptist ASCE Students in the form of Scholarships.

Melissa Barbosa, P.E.

President

2013-2014 ASCE SB/R YMF

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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

September 2014

September 19 Golf Tournament

October 8 Geotechnical Committee Meeting

October 9 APWA Construction Management Seminar

November 5 LA Section Awards Dinner and Installation

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/inforenal.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

Publisher:

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Professional Directory: \$250 per business card (10 issues)
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1/2 page Ad: \$125 per issue
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