

ASCE San Bernardino Riverside Branch Newsletter

Volume 2019 Issue 3

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ASCE SAN BERNARDINO & RIVERSIDE COUNTIES BRANCH, LOS ANGELES SECTION, REGION 9 SINCE 1953

PRESIDENT'S MESSAGE

Melissa Barbosa, P.E.



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Hello ASCE Members,

I'd like to give a special "Thank you!" to the Engineers Day Committee - Andrea Gonzalez, Mohammad Elhocheimi, Gustavo Gomez, Jeff Meiter, Rolando Hernandez and Alexander Lui and I) along with all of the day of Volunteers and Sponsors who made this an exceptionally awesome event. The day was full of technical presentations, hands on presentations out in the field, the DREAM BIG movie, lunch and a hands-on engineering activity designed to inspire a new generation on Engineers! Teachers and students expressed appreciation for a fun and informative day. We anticipate expanding the program next year to accommodate more students. This will require more volunteers, including YOU! Join us next year, you'll be glad you did.

Interacting with the high school and middle students and sparking their interest in the civil engineering profession, reminded me why I love ASCE and our profession. This year was our 2nd time hosting in Riverside an event showcasing Engineering, Surveying and Riverside County Flood Control and Water Conservation District. Last year it was at Riverside City Hall, we invited high school students to the table at the Mayor's Office, learned about the City of Riverside's Public Works Traffic Control Room and Riverside Public Utility Water and Electric projects.

I also went for the first time to our annual joint ASCE Dinner with Inland Empire Council of Engineers and Scientists during Engineers Week at the University of Redlands, University Club. There was a great presentation on how Engineers and Biologists are Working Together to Save the Santa Ana Sucker. I highly encourage you to attend it next year.



PRESIDENT'S MESSAGE

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Saturday March 3, 2018 is the Popsicle Stick Bridge Competition at California State University Los Angeles. The SBR Younger Members will be hosting the impromptu event this year

The annual ASCE Life Member Brunch is on March 3, 2018. It great time to talk with some of the seasoned Engineers and hear all there great stories. In honor of those members who have advanced to Life Member status in the society and in recognition of their career achievements. Keynote Speaker: Robin Kemper, P.E. ASCE Society President-Elect.

Our next Luncheon is scheduled for Wednesday March 21st at the Riverside Convention Center. The topic is Recycled Water in the Inland Empire. I hope to see you there!

On March 23, 2018 is the California Infrastructure Symposium and California Awards Dinner in San Francisco at the Historic San Francisco War Memorial and Performing Arts Center. The symposium has two tracks one is Water and the other is Transportation. Very exciting news one project and two Individuals that were awarded at the San Bernardino Riverside local Branch awards in June made it to the State level (Region 9) and will be announced and receiving awards at the Dinner Banquet! Congratulations to all the recipients. Please see the link below for more information. www.caisregion9.org/2018

Save the Day – The ASCE Legislative Fly in to Sacramento is May 16, 2018. If you are interested in attending please let me know.

Cheers,

Melissa Barbosa, P.E., M.ASCE San Bernardino-Riverside Branch President

Engineers Column By: Rolando Hernandez, E.I.T., A.M. ASCE

Banc of California Stadium



Banc of California Stadium courtesy of Gensler.com

hen Los Angeles was first coined as "The Entertainment Capital of the World", this advertising slogan was attributed to the presence of Hollywood as well as music, filmmaking, and even amusement attractions in the region. Today, Los Angeles continues to uphold this reputation by attracting new audiences' including many sports fanatics who enjoy watching their favorite teams compete in modern engineering marvels better known as stadiums. With all the attention surrounding LA's recent acquisition of two National Football League teams (Rams and Chargers), it seems as is if things couldn't get better for So Cal sports fans. Why not add another soccer team as well? Los Angeles Football Club, Major League Soccer's new expansion team will open their new 250-million Banc of California Stadium in Exposition Park, right next to the Coliseum at USC. The stadium project, which was designed by the global architecture firm Gensler, is scheduled to open in time for the 2018 MLS season.

Before the project broke ground on August 23, 2016, the Los Angeles Memorial Sports Arena had to be demolished since the stadium will be constructed on the same site. The Sports Arena which once hosted professional hockey, basketball, Olympic boxing, and even the Democratic National Convention brought a lot of memories over the years. The 57-year-old arena closed in March 2016 and will definitely be missed. However, Banc of California Stadium promises to anchor a larger development featuring a conference center, office space, a soccer museum and 10,000 square feet of restaurants. The 22,000-seat venue will not only generate thousands of jobs, but it will create new entertainment options and increase revenues for area businesses in a part of the city that has not enjoyed the same economic recovery as the rest of Los Angeles.

Engineers Column By: Rolando Hernandez, E.I.T., A.M. ASCE

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One of Gensler's creative design approaches emphasizes an exciting game-day experience by creating an intimate European-style atmosphere. By implementing safe standing rail seats in certain sections, fans will have an opportunity to stand shoulder-to-shoulder, creating an electric and unified stadium atmosphere on game days. U.S. based SC Railing designed the first-of-its-kind rail seating aimed to provide comfort, safety, and to accommodate sight lines by eliminating obstructions. In addition to hosting soccer games, Banc of California Stadium will host a variety of events and concerts. From corporate meetings and trade shows to weddings and holiday parties, this state of the art venue is a non-traditional event venue that breaks the mold of typical hotel and conventional center meeting spaces with 35 suites, three private clubs, a rooftop deck with a water feature, and a nightclub.



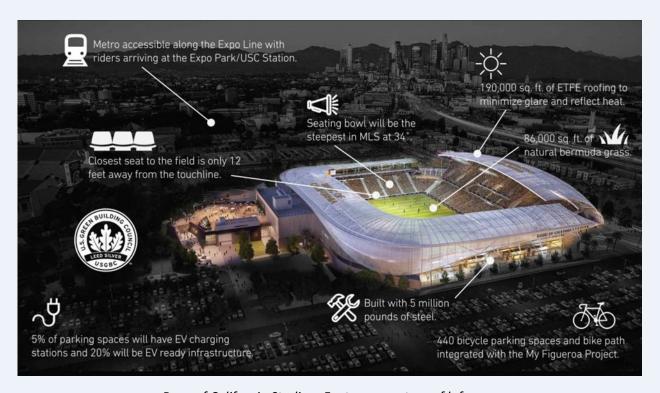
Banc of California Stadium rendering courtesy of lafc.com

The challenges of designing such a structure were tackled by the design team consisting of several notable private consultants. Thornton Tomasetti provided structural and facade engineering services. Designed to meet Federation of Association of Football (FIFA) standards, the stadium provides expandability to 35,000-40,000 seats where the pitch is utilized, not additional stands. The substructure consists of a deep single-story basement at field level. Unique features of the stadium include exposed structure, long-span cantilevers, and a roof clad with 190,000 square feet of ETFE film. Langan, known for their environmental and geotechnical work on the Mercedes Benz Stadium in Atlanta provided multidiscipline engineering services in support of the design and construction of Banc of California Stadium. During planning and entitlements, Langan performed a hydrology study, developed a preliminary grading plan, provided a utility supply assessment in support of an Environmental Impact Report Addendum, and completed a preliminary geotechnical investigation. During design, Langan performed a supplemental geotechnical investigation, and continuously worked through construction. PCL Construction had the challenge of constructing the steepest seating bowl in the MLS at 34 degrees. Once complete Banc of California Stadium will be the first open-air stadium built in Los Angeles since Dodger Stadium.

Engineers Column By: Rolando Hernandez, E.I.T., A.M. ASCE

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With the addition of LAFC who will rival the LA Galaxy this season, sports fans in LA will need to choose a team to root for. The same can be said about every other major sport now that LA has two teams in every major sports league. The new soccer stadium is one of several major projects coming to Exposition Park, including USC's \$270-million renovation of the Los Angeles Memorial Coliseum and the \$1-billion Lucas Museum of Narrative Art. Until then, the exciting MLS season is quickly approaching. LAFC will make their debut at Banc of California Stadium on Sunday April 29, 2018 versus the Seattle Sounders FC.



Banc of California Stadium Features courtesy of lafc.com

Sources:

https://www.lafc.com/stadium/faq

https://www.gensler.com/projects/banc-of-california-stadium?l=featured

https://urbanize.la/post/lafc-stadium-break-ground-august-23

http://www.pcl.com/Lists/Publications/PCL-Horizons-Issue-85.pdf

http://www.thorntontomasetti.com/projects/banc_of_california_stadium/

By Andrea Gonzalez, MPA, PE



Inspiring Wonder was the theme for Engineer's Week this year and with the awesome volunteers we had, we believe we met our goal for our 2nd Annual Engineers Day at Riverside!! This year ASCE San Bernardino/Riverside Branch and Younger Member Forum (YMF) collaborated with Riverside County Flood Control and Water Conservation District (the District) to host the event at their facilities on Friday, February 23, 2018.

What a success the event was! Approximately 45 high school and middle school students arrived from the local Riverside schools. Of those 45 students, the United Way of the Inland Valley brought 20 of their middle school girls participating in their Girls Excelling in Mathematics Success (GEMS) program to the District as well.

All students were welcomed by beaming volunteers and were led to a big room to hear several presentations from:

- Melissa Barbosa (Water System Engineer, Azusa Light & Water) who welcomed the group and informed them about Engineers Week,
- Anthony Mistretta (Project Manager, CASC Engineering & Consulting, Inc.) who provided a civil engineering overview,
- Bob Cullen (Assistant Chief Engineer, Riverside County Flood Control & Water Conservation District) spoke about the District and why it was formed,
- Ava Moussavi (Junior Engineer, Riverside County Flood Control & Water Conservation District) who provided an overview of the various Low Impact Development (LID) features at the District and
- Jeff Meiter (President, Valued Engineering, Inc.) who spoke about surveying and its significance to civil engineering.



Afterwards, a group photo was taken in front of the District front entrance and the groups were split in half and provided simultaneous tours of the LID facility and a demonstration of surveying equipment. Students and volunteers were shown the differences between porous and impervious concrete as well as the benefits of utilizing LID features and were provided the opportunity with a hands-on learning exercise using a surveying tripod and rod.

By Andrea Gonzalez, MPA, PE

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After the tours, the group watched the *Dream Big* film where students and volunteers were touched by the stories shared in the film. Lunch was served after the film. Lastly, there was an impromptu event where students were broken up into teams and built boats made out of aluminum foil, popsicle sticks, and tape. Each team was judged based on set criteria on the boat's name, overall design and amount of weight (marbles) were used before it sunk into tubs filled with water. The winners were announced and cash prizes were provided to the 1st, 2nd and 3rd place winning teams. What a fun filled and impactful day!!

Thank you to our wonderful volunteers and Engineers Day committee for making this event possible!! A special thanks to the <u>District, Riverside</u> <u>Public Utilities, HDR, Michael Baker International and Valued Engineering</u> for their generous support and sponsorship for this event!!

Testimonials from Volunteers:

"This was my first time volunteering for an ASCE event that was not affiliated with Cal Poly Pomona. Because the group was on the smaller side (around 45-50 students) it felt more intimate than other outreach events I have attended that had close to 300 students in attendance. I am definitely looking forward to the next ASCE SB/R outreach opportunity!" —Carlee Guthaus, Civil Engineering Undergraduate, Cal Poly Pomona

"I am very optimistic about our profession's future, the students were very excited, enthusiastic, and involved during "Dream Big movie", the tours we had and finally the hands on activity. I am hoping to see as many of them as future Civil Engineers!" --Mohammad El Hocheimi, Engineers Day Co-Lead, Assistant Engineer, WSP



"I wanted to thank you all for an outstanding event! HDR is pleased to have participated the last two years in this event. The organization, quality and content of the day was excellent. The kids were interested and engaged. I spoke with several of the students and teachers throughout the day and all were thankful and getting a lot out of the day. I especially enjoyed the demonstrations and hands on activities, the Dream Big movie and the infrastructure spoof video made by Bob Cullen. You all make me proud to call Riverside home! Thanks again for a wonderful event." —Lisa Reece, Vice President, HDR

By Andrea Gonzalez, MPA, PE

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"It was extremely fun to see the student's excitement as they learned about the different branches of civil engineering. The event was well organized and included multiple fun and inspiring sessions presentations, tours, and hands on activities. I believe this event well be remembered by some of those students for the rest of their lives. I hope that we were able to persuade some of those kids into engineering." — Ibrahim Ibrahim, P.E., Salem Engineering Group, Inc.

"Engineers Day really makes me proud to be in this industry and to be able to expose young minds to this profession. I enjoyed how the students engaged themselves with the activities such as the survey demonstration, LID tour, Dream Big movie and especially the Impromptu event. You can see the passion in their eyes and I was really glad that I got to be a part of their discovery of their career path." — Alexander Liu, Civil Associate II, Michael Baker International



By Andrea Gonzalez, MPA, PE

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"It was a pleasure being a volunteer for this event. Several times I noticed the excitement in the future engineer's faces and I thought "wow, this is a great event". The Dream Big movie was outstanding; I got the feeling of being in a movie theater, and the content was top-notch. The tour of the BMPs at the facility and hands-on survey was very interesting. Thanks again for the invite to be a volunteer, hope it continues next year." – Tony Colarossi, Project Engineer, Earth Systems



"Engineering Day was a fun-filled, inspiring, and informative event which allowed students to gain a better understanding of Civil Engineering. I believe that the overall presentation left a positive impact on the students as far as convincing them to pursue engineering careers. I am looking forward to volunteering again in future E-Day events." —Rolando Hernandez, EIT, Civil Associate, Michael Baker International



Cal Poly Pomona Student Services Building Technical Tour February 9, 2009

By Racieli Andrada

embers joined Cal Poly Pomona ASCE Student Chapter members on a technical tour of the New Student Services Building under construction at Cal Poly Pomona. This project plays a central role in the campus master plan and is one of two current construction projects. This new 138,000 square foot structure is expected to be completed in Fall 2018 and will replace the existing CLA tower, which houses administrative offices and student services.

The technical tour was hosted by CW Driver Superintendents who walked the group around the entire structure and up two of the three floors of the building. With the projected completion of the project in Fall 2018, many of the iron workers worked overtime to meet their target goal. Therefore, the attendees were not about to walk to part of the building. The tour highlighted the complexity of the roof design and the issues of fabricating and lifting the members to their exact location. The building consists of two separate buildings under one roof, which magnifies the complexity of the roof design.



Cal Poly Pomona Student Services Building Technical Tour February 9, 2009

By Racieli Andrada

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The tour concluded with looking at the mat foundation and some of the larger steel members of the roof connecting the two buildings. The group is invited for another technical tour before the conclusion of the school year to see the progress of the structure.



LOS ANGELES SECTION, REGION 9

San Bernardino & Riverside Counties Branch

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Developing a New Recycled Water Source in the Inland Empire

By Brian Knoll, P.E., Vice President, Albert A. Webb Associates

Join ASCE at our March luncheon as Brian Knoll presents on the Western Riverside County Regional Wastewater Authority's (WRCRWA) newly expanded 14 MGD treatment plant. The \$72.5 million treatment plant upgrade provides reliable service to the cities of Eastvale, Norco, Corona, Home Gardens, and the La Sierra area. As the existing treatment plant was nearing its design capacity, an expansion was required to meet growing demands. In a ddition, the a gencies involved desired to develop a new recycled wa ter sour ce to offset demands on the potable wa ter s ystem. Brian's presentation will focus on the development and implementation of this large public works project that will increase capacity for future growth, reduce annual operating costs, and develop a new source of recycled water for the community.

Date: Wednesday, March 21, 2018

Time: 11:30 am to 1:00 pm

Location: Riverside Convention Center

3637 Fifth Street, Riverside CA

Cost: \$35 ASCE Members w/ RSVP

\$30 Government Employees w/ RSVP

\$25 ASCE Life Members & Students w/ RSVP

\$40 Non-Members / Walk-Ins / No RSVP

Parking is **FREE in the Main Convention Center Lot (enter at

3rd Street and Main Street)**

Deadline: Please reserve by March 14, 2018

Additional Info: Melissa Barbosa, P.E.

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The Branch Board of Directors expresses gratitude on behalf of all members to all involved in the realization of this exciting new virtual place!



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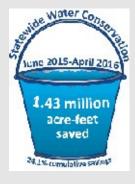
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Check out all of the content available from ASCE. When ordering be sure to use the Promo Code below so that the branch will receive 20 percent of the gross revenue from the registration. This helps the branch to reduce member costs, provide better activities and give out more scholarships for the benefit of the local engineering community.

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http://www.asce.org/continuing_education/

Employment Opportunities

Be sure to check out the career opportunities at ASCE's Career page at http://www.asce-sbriv.org/careers-1.html

Calendar of Upcoming ASCE Events

March 21, 2018 Luncheon, Riverside Convention Center	Developing a New Recycled Water Source in the Inland Empire, by Brian Knoll, PE
March 23, 2018	2018 CA Infrastructure Symposium and Awards Dinner, San Francisco, ASCE Region 9 and ASCE San Francisco
April 6-8, 2018	USMC 29 Palms CA STEM Engineering & Construction Camp, 29 Palms, Marine Corps

Membership Information

Types 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: \$55

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 http://www.asce.org/join/ fill out the short application or call 1-800-548-ASCE (2723) and instantly become a member of ASCE.

Online membership renewal is available! Go to http://www.asce.org/membership-communities/ You will 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.

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