

# Los Angeles Section

*Monthly: Est. 1913*

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SOUTHERN SAN\_JOAQUIN / METROPOLITAN LOS ANGELES

## PRESIDENT'S MESSAGE

Kenneth H. Rosenfield, P.E., F.ASCE  
Los Angeles Section President

VOL. LV NO. 5

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## Panama Canal Revisited

Last October 2014, many of us participated in the ASCE Conference on Global Engineering in Panama City, Panama and, as a result, we had a great opportunity to field visit the New Panama Canal and attend many lectures on this magnificent project. I took advantage of this opportunity to see firsthand the Pacific Lock Set of the new Panama Canal; the field trip arranged as a part of the Conference. However, I did not take the time to visit the Atlantic Lock Set and I was disappointed in that choice. But, as luck or good planning would have it, my wife and I had planned a southern Caribbean Cruise for March 2015 and one of the stops was to be in Colon, Panama near the Atlantic Lock Set.

The New Panama Canal project is the definition of a mega-project in scope, size and budget and it is a remarkable achievement for all those involved. I have long been an advocate of recognizing that "all Civil Engineering is local"; meaning that those of us that work in small communities and assist them to improve their quality of life are the heartbeat of Civil Engineering. Nonetheless, while that is a true statement, the mega-project is always fascinating for Civil Engineers, is necessary for humanity and the Panama Canal is a perfect example of an amazing project. Congratulations to all that have worked on the New Panama Canal!

The cruise which my wife Heidi and I were taking was in celebration of our 30th wedding anniversary. The cruise began in Fort Lauderdale, FL and visited Grand Cayman, Cartagena, Columbia, Colon, Panama, Puerto Limon, Costa Rica, Belize and Cozumel, Mexico. This 11-day adventure started on March 16th and went smoothly with great weather and good surroundings. Prior to the cruise, I intended to arrange a local tour of the Panama Canal Atlantic Lock Set and kept my eye open for connections. As it turned out, I attended the Region 9 Infrastructure Symposium on March 6, 2015, in San Diego, and the lunch time speaker was Joe Cazares of CH2MHill, Program Manager and Locks Construction Manager for the Panama Canal. I spoke to Joe about an opportunity for a tour of the Canal and he immediately offered me his business card and encouraged me to contact him. He reported, however, that his last day at the Canal was set for



March 13th so he was unsure of the person that might be available to provide the tour. Shortly thereafter, I was contacted by L. Gregory (Greg) Ohrn, PhD., P.E., of CH2MHill, and he offered to provide a tour. Greg is the leader of the Quality Control Team for the Panama Canal Authority and assists the local Civil Engineers and Technicians in evaluating and seeking corrections for any issues out of specification for the entire project. Greg has been a part of the Panama

*continued on page 3*



**Save the Date!**

**ASCE Region 9 Legislative Day**

**Wednesday, May 13, 2015**



- 9:00AM – 11:30 AM**    -Legislative Process Training \*
- Public Relations Training
- Review ASCE Legislative Talking Points
- 11:30 AM – 12:30 PM**   -Lunch
- 1:00PM – 4:00PM**        -Legislative Visits

\*Attendees with advanced legislative experience are excused from the morning training session as necessary to attend legislative visits prior to 1:00 PM.

For additional information or to participate, contact Tyler Lawson  
Pasco Laret Suiter & Associates, [tlawson@plsaengineering.com](mailto:tlawson@plsaengineering.com), 858-259-8212

Canal Expansion Project for the past five years and is a wealth of knowledge, is very friendly and is a great all around Civil Engineer. In the photograph, Greg, Heidi and I are at the Visitor Center of the Gatun Locks of the existing Panama Canal with a car carrier ship passing through in the background.

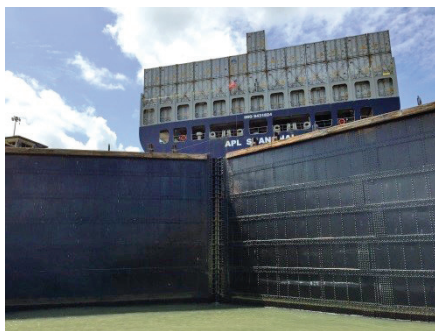


With a "local" guide, Greg took time out of his weekend, as we arrived on a Saturday, to pick us up at the harbor and drive us to the new Atlantic Locks Visitor Center where we viewed an informational video and had

the opportunity to take photographs of the now nearly complete Atlantic Lock Set. As seen in the photograph, almost all of the concrete work is complete, all gates are in place and the project attention has shifted to the electro-mechanical work. The 16 gates on this project are fascinating in and of themselves. With maximum dimensions of 30' thick, 99' tall and 180' long, the ship style boxes are designed to be ballasted to aid in their positioning and are redundant to aid in long term maintenance of the facility. Among other topics, Greg and I also discussed the multitude of concrete mix designs that have been used in the New Panama Canal to insure the longevity of the concrete structures.

When we visited the Canal last October, we were told that the New Panama Canal would likely be open for business in April 2015. However, that is not going to happen and it may be another six months or so before it is open for testing and initial use. And, it will likely be a few years more before all contractor claims are adjudicated on the project.

After viewing the Atlantic Lock Set, we traversed the existing Canal and passed through when a ship was in the Gatun Locks. This was an amazing experience to get down to the water level and pass by an operating gate. An alternative to this low flow crossing of the existing lock set is planned for the area in the future as a new bridge is scheduled to be constructed. The new bridge will alleviate a traffic jam that occurs as vehicles are waiting for ships to pass by in order to allow the low flow crossing to be opened.



Greg, who can otherwise be referred to as Professor Ohrn, as he spent many years of his career as a faculty member at a college in Arizona, was seemingly having as much fun as we were in visiting the Canal. As is usual, you do not get much of a chance to be a tourist in your home area and Greg took us "cross country" down some dirt

roads to our next stop. We next had the opportunity to view the front and rear of Gatun Dam, an integral part of the Canal System.

My many thanks to Joe Cazares, Greg Ohrn and CH2MHill for their hospitality and kindness for the tour and the time provided to share the Panama Canal with me and my wife! I now feel that I have completed a full tour of the facilities and I have great admiration and respect to the Civil Engineering community that has worked on this project.



## SUSTAINABILITY COMMITTEE CALL FOR MEMBERS

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# State Investments and Legislative Update

by Richard Markuson, CA Region 9 Legislative Advocate



## Governor Signs Water Bills

Governor Brown signed two water bills – AB 91 and AB 92. While the popular media has characterized them as providing drought relief, a careful look at the allocation of funds suggests the bills will do little for California's water crisis. Perhaps more perplexing, the bills approve a side agreement recently entered into by the administration and state Bargaining Unit 19, represented by the American Federation of State, County,

and Municipal Employees, Health and Social Services/Professional. The addendum would compensate Senior Psychologists, Psychologists, and Licensed Clinical Social Workers working at the California Department of Corrections and Rehabilitation institutions for certain standby and call back duties.

It is no secret California is experiencing its fourth dry year in a row - the worst drought in modern United States history and driest January since the state began keeping records in 1895. The Sierra Nevada snowpack, which Californians rely on heavily during the dry summer months for their water needs, is at a near record low. Only in 1991 has the water content of the snow been lower.

California's drought conditions have resulted in dangerously low levels of water in California's reservoirs and groundwater aquifers and have impacted every aspect of the State's environment and economy. The drought has imperiled drinking water supplies, the agricultural sector, sensitive habitats, and greatly increased our risk of wildfire.

Since last February, the state has pledged over \$870 million to support drought relief, including money for food to workers directly impacted by the drought, funding to secure emergency drinking water supplies for drought impacted communities and bond funds for projects that will help local communities save water and make their water systems more resilient to drought.

The legislation includes more than \$1 billion for a variety of projects. Specifically, the legislation does the following:

A. Accelerates \$267 million from Proposition 1 of 2014, Water Bond funding for safe drinking water and water recycling from the Governor's January budget proposal.

B. Accelerates drought-related expenditures from the Governor's January budget proposal augmented by \$31 million in targeted additional expenditures (\$132 million total), including efforts to implement the Water Action Plan and provide direct assistance to workers and communities impacted by drought.

C. The additional \$31 million in new targeted expenditure items which were not included in the Governor's January budget proposal include the following:

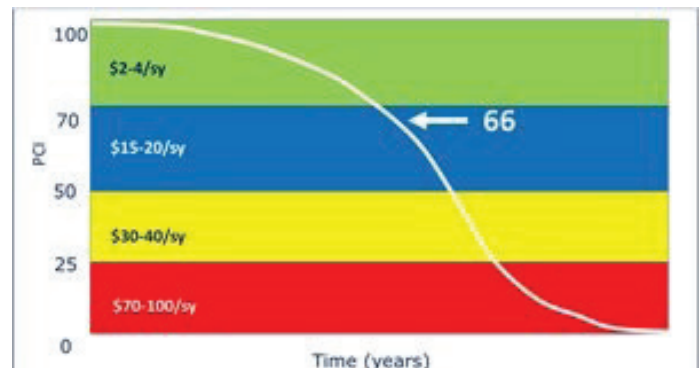
- a. Seventeen million dollars in additional funding to support emergency food aid to 29 counties most impacted by the drought;
- b. Four million dollars for emergency drinking water in disadvantaged communities;
- c. Five million dollars to the DWR to provide emergency drinking water support for small communities, including addressing private wells;
- d. One million four hundred thousand dollars to the DWR to increase advertising and public relations related to the Save Our Water campaign;
- e. Two million eight hundred thousand dollars to the DWR and CDFW for additional modeling support and species tracking in the Delta and greater Central Valley to support efficient management of the state's water system; and
- f. One million dollars to address critical infrastructure deficiencies at remote fire stations that have run out of water.

D. Accelerates \$660 million from the Governor's January budget proposal of Proposition 1E of 2006, bond monies for flood protection in urban and rural areas to make the state's infrastructure more resilient to climate change and flood events.

E. Accelerates \$30 million from the Governor's January budget proposal of cap-and-trade auction revenue to DWR (\$20 million) and CDFA (\$10 million) for programs that provide a reduction of GHG emissions and also deliver state and local water use efficiency and agricultural water use efficiency. Both proposals were part of last year's agreement on cap-and-trade expenditures.

## California's Precarious Pavement Condition Trending Downwards

In recent months, the League of California Cities has engaged in numerous discussions with state and federal lawmakers about the condition of California's local streets and roads. These discussions are based on the most recent biennial Local Streets and Roads Needs Assessment, which was released last October. This survey uses a four-tiered scale Pavement Condition Index (PCI) scale from zero to 100 to assess the conditions of local roads within California's 58 counties. At first glance, the fact that the on-average rating for California's local system is 66, just four points under what the study deems as good condition, does not appear to be alarming. The reality is that the local roads are on a precipice.



## Recent Reports

California's Little Hoover Commission released *Level the Playing Field: Put California's Underground Economy Out of Business* "In this review, the Commission found that the tentacles of the underground economy reach deep in California and that it plagues both businesses and workers. The underground economy also robs the state of an estimated \$8.5 billion to \$10 billion in uncollected tax revenue, money that could fund education, law enforcement or long overdue infrastructure investments or reduce taxes for the majority of Californians who play by the rules."

California Public Utilities Commission released *Regulation of Physical Security for the Electric Distribution System*. Senate Bill 699 (Hill, Chapter 550, Statutes of 2014) required the California Public Utilities Commission to develop rules for physical security of the electric distribution system. This CPUC staff whitepaper discusses "the current and potential regulatory framework around electric distribution system physical security." Among the key recommendations is that "[t]he Commission should consider protection of critical security information as part of its regulatory standard development process" and that the Commission rules "should require a risk based approach to physical security planning" in which utilities would report annually on compliance.

Public Policy Institute of California released *Policy Priorities for Managing Drought*. "State, federal, and local water managers have worked diligently to reduce the economic, social, and environmental harm from the current drought. But as the drought continues, the challenges will grow more acute. California can learn from experiences to date—and from Australia's response to its Millennium Drought—to better prepare both for the year ahead and for future droughts. State leaders should address weaknesses in four areas of drought preparation and response, by: 1) improving water use information, 2) setting clear goals and priorities for public health and the environment, 3) promoting water conservation and more resilient water supplies, and 4) strengthening environmental management."

The staff of Senator Ed Markey released *Tracking & Hacking: Security & Privacy Gaps Put American Drivers at Risk*. This report analyzes security measures needed to protect drivers against hackers who may be able to seize information stored in a vehicle in violation of a driver's privacy. "In order to better understand the ability of automobile companies to protect the safety and privacy of drivers, letters were sent to 20 major automobile manufacturers with questions regarding technology, security precautions, and privacy policies. The questions posed were identical for each manufacturer.... The diversity of responses ... shows that each manufacturer is handling the introduction of new technology in very different ways, and for the most part these actions are insufficient to ensure security and privacy for vehicle consumers."

The UC Davis Center for Regional Change released *Mapping Opportunity in California's San Joaquin Valley*. "The enclosed findings highlight discrepancies in the availability of economic, educational, health, housing, civic and other opportunities across the San Joaquin

Valley's communities. For example, many rural areas have historically experienced exclusion from municipal services such as clean drinking water and sewage. In urban areas, youth drop out of schools at much higher rates than in the region overall. Moreover, in one community highlighted by the study, the predominantly Latino population has only a 12% rate of homeownership, compared to 60% for the region as a whole. These disparities must be addressed for the San Joaquin Valley to thrive."

"Policy and Procedures Concerning the Use of Airport Revenue; Proceeds from Taxes on Aviation Fuel" is available. "This action confirms FAA's long-standing policy on Federal requirements for the use of proceeds from taxes on aviation fuel. Under Federal law, airport operators that have accepted Federal assistance generally may use airport revenues only for airport-related purposes. Local taxes on aviation fuel are subject to airport revenue use requirements. State taxes on aviation fuel (imposed by either an airport sponsor or a non-sponsor) are subject to use either for a State aviation program or for airport-related purposes. The statutory revenue use requirements apply to certain State and local government taxes on aviation fuel, as well as to revenues received directly by an airport operator. This document formally adopts, through an amendment to the Revenue Use Policy, FAA's interpretation of the Federal requirements for use of revenue derived from taxes on aviation fuel." The effective date for this ruling is December 8, 2014.

Science Advances released *Unprecedented 21st Century Drought Risk in the American Southwest and Central Plains*. "In the Southwest and Central Plains of Western North America, climate change is expected to increase drought severity in the coming decades. These regions nevertheless experienced extended Medieval-era droughts that were more persistent than any historical event, providing crucial targets in the paleoclimate record for benchmarking the severity of future drought risks. We use an empirical drought reconstruction and three soil moisture metrics from 17 state-of-the-art general circulation models to show that these models project significantly drier conditions in the later half of the 21st century compared to the 20th century and earlier paleoclimatic intervals."

The U.S. Department of Transportation released *Beyond Traffic: Trends and Choices 2045*. 19 p Blue Paper, 322 p Report Addressing a concern that "inconsistent, unreliable funding and static policies" have contributed to a transportation infrastructure that is "in an increasingly deteriorated and fragile state," this survey seeks to comprehensively examine the nation's transportation system. A series of webinars drew over 1,300 participants, including engineers, truck drivers, safety advocates and disability rights advocates. "Our purpose in producing this report was to analyze the latest data and trends shaping transportation so we could objectively frame critical policy choices that need to be made." They also released *Pocket Guide to Transportation 2015*. "The Pocket Guide to Transportation is a compilation of statistics that provide key information and highlight major trends on the U.S. transportation system. Intended as a compact reference, it supports the Bureau of Transportation Statistics mission to create, manage, and share transportation statistical knowledge."

## Full List of ASCE Los Angeles

Last month, we featured the pictures of our Life Member induction ceremony celebrating our newly qualified Life Members. We provide to you in this issue the full list of new Life Members called out this time.



**New Life Members, Front Row (L-R): Randy Bick, Pat Fuscoe, Greg Axten, Nathan Meeks and Harvey Gobas; Back Row: Thomas Broz, Siamak Jafroudi, Steven Foellmi, Harry Lorick, Marshall Lew and Ronald Eguchi.**

- Mr. Edward Joseph Andrews, P.E., M.ASCE, Metropolitan Los Angeles Branch
- Mr. Thomas W. Basham, P.E., M.ASCE, San Bernardino-Riverside Branch
- Mr. James Allen Biery, P.E., M.ASCE, Orange County Branch
- Mr. George Randall Boelsems, M.ASCE, Orange County Branch
- Mr. Michael A. Caccese, Aff.M.ASCE, Santa Barbara-Ventura Branch
- Mr. James Dennis Christy, P.E., M.ASCE, San Bernardino-Riverside Branch
- Mr. Wallace H Franz, P.E., M.ASCE, San Bernardino-Riverside Branch
- Mr. Ronald Lee Hartje, P.E., M.ASCE, Orange County Branch
- Mr. David C Hebert, P.E., M.ASCE, Orange County Branch
- Mr. Edward Victor Henning, Jr., P.E., M.ASCE, San Bernardino-Riverside Branch
- Mr. Richard, James Hoar, Ph.D., Aff.M.ASCE, San Bernardino-Riverside Branch
- Mr. David P Houser, P.E., M.ASCE, Metropolitan Los Angeles Branch
- Mr. Martin W Johnson, P.E., M.ASCE, Orange County Branch

- Mr. Robert P Kelly, P.E., M.ASCE, San Bernardino-Riverside Branch
- Mr. Charles William Lake, P.E., M.ASCE, San Bernardino-Riverside Branch
- Mr. Craig B Leidersdorf, M.ASCE, San Bernardino-Riverside Branch
- Mr. David M Levinsohn, M.ASCE, Orange County Branch
- Mr. G Jerry Lusich, P.E., L.S., M.ASCE, San Bernardino-Riverside Branch
- Mr. Michael James McCarthy, P.E., M.ASCE, San Bernardino-Riverside Branch
- Mr. Hoover H Ng, P.E., M.ASCE, Metropolitan Los Angeles Branch
- Mr. Rodney G Pence, P.E., S.E., M.ASCE, San Bernardino-Riverside Branch
- Mr. William Everett Plummer, P.E., M.ASCE, San Bernardino-Riverside Branch
- Mr. Steven Paul Reiner, P.E., M.ASCE, San Bernardino-Riverside Branch
- Mr. Phillip G Roberts, P.E., M.ASCE, San Bernardino-Riverside Branch
- Mr. Michael Thomas Savage, D.WRE, San Bernardino-Riverside Branch
- Mr. Michael John Stearns, P.E., M.ASCE, San Bernardino-Riverside Branch





# 2015 ASCE California Infrastructure Symposium and Awards Dinner

*by Jim Frost, Co-Chair, 9th Annual California Infrastructure Symposium and Awards Dinner*



On March 6th the San Diego Section and Region 9 hosted the 9th Annual California Infrastructure Symposium and Awards Dinner. This year's event, Chaired by Jim Frost of the San Diego Section, was located in the beautiful and historic Balboa Park and coincided with the San Diego Section's Centennial celebration. Over 150 people were in attendance at each event.

The day began at the San Diego Hall of Champions with a presentation by San Diego Councilmember Mark Kersey focused on "Rebuilding San Diego: Tackling our Infrastructure Backlog." It was then followed by 24 speakers focusing on transportation and water infrastructure issues and projects. We had speakers from as far away as Canada and Panama!

Much of the water infrastructure track was focused on water management, sustainability and planning to address California's historic four year drought. The transportation track included topics ranging from border crossings to automated vehicles. How many of us are ready for self-driving cars in less than 9 years?

The evening awards dinner kicked off with a self-guided tour of the Air and Space Museum while conversing with clients and colleagues. We then enjoyed a wonderful plated dinner followed by the presentation of the statewide awards for individuals and projects lead by Chair Kwame Agyare. The project of the year was the Levi's Stadium Civil Infrastructure, located in Santa Clara.

The sponsors for these two events included 19 companies dedicated to supporting ASCE and our State's infrastructure. Our track sponsors were HDR and CH2MHill for the transportation and water segments, respectively. Not only did they provide financial support for the events but they also facilitated the track presentations throughout the day. The other sponsors were: Kleinfelder, TYLin, Hall & Forman, BergerABAM, Parsons Brinkerhoff, Michael Baker, Sener, Vali Cooper & Associates, CDM Smith, LSA, NV5, Tensar, Port of Long Beach, Pacific Advocacy, GHD, LaBelle Marvin and Kimley Horn.

As the Chairs for the events, both Kwame and I would like to thank our volunteer staff for the planning and execution of both events. We look forward to Sacramento in 2016!





This report covers a wide range of transportation statistics having to do with infrastructure, moving people, moving goods, performance, economy, safety, and environment. Los Angeles (1.6 million) and Sacramento (1.1 million) made the top 10 in Amtrak passenger volume; Los Angeles (32.3 million) and San Francisco (21.7 million) made the top 10 in airport passenger volume.

The California ISO released *Advancing and Maximizing the Value of Energy Storage Technology: A California Roadmap*. Energy storage technology is beginning to revolutionize the electric system by enabling increased renewables integration, increasing grid optimization, and reducing greenhouse gas emissions. While many organizations are testing energy storage technologies and systems, a comprehensive plan is needed to incorporate storage projects into the state's grid at scale. This roadmap identifies actions that can help create a path to a sound marketplace for energy storage resources. It focuses on expanding revenue opportunities, reducing costs of integrating and connecting to the grid, and streamlining and spelling out policies and processes to increase certainty. The current state is analyzed to identify needed actions, set priorities for next steps, and define the responsibilities of each organization to address the issues.

The Senate Office of Research released *The Water We Drink, Part I: What is California Doing to Ensure Its Water is Safe?* The Senate Office of Research has released the first of two reports on drinking water in California. This report is an update of a 2011 report, which focuses on the water delivery system in the state and the measures taken to guarantee drinking water safety. In particular, the transition from oversight by the California Department of Public Health to the State Water Resources Control Board's Division of Drinking Water is detailed, as well as the regulatory process for establishing Maximum Contaminant Levels in drinking water.

The Legislative Analyst's Office has released its report, "The 2015-16 Budget: Transportation Proposals," outlines Governor's 2015-16 budget proposals for several transportation departments and programs, including Caltrans, California High-Speed Rail Authority (HSRA), CHP and DMV; among its recommendations, LAO says that the Legislature should take steps to allow for adequate oversight of HSRA's progress toward completing key non-construction activities, such as environmental reviews and acquiring necessary land, in order to ensure completion of the project's Initial Construction Segment from Madera to Bakersfield by 2018.

High-Speed Rail Authority has released its Project Update Report, which is presented biannually on March 1 and November 15 to the State Legislature; among its achievements since the last report, it has reached a settlement agreement with the City of Bakersfield to dismiss the City's lawsuit against the Authority, and has finalized an agreement with the Union Pacific Railroad to work together on design and construction activities of the high-speed rail system in the Fresno to Bakersfield section.

The California State Auditor has released its report, "Los Angeles Department of Water and Power: Consequences Linked to Its

Premature Launch of Its Customer Information System May Push Total Costs Beyond \$200 Million."

Caltrans has released its third issue of *The Mile Marker: A Caltrans Performance Report*, "a periodic reporting of areas where the department is excelling and where further improvement is needed," announces pavement rehabilitation accounts for 46% of state's upkeep needs while bridge reconstruction rates second at 18%.

California Public Utilities Commission has released its staff report, "Survey of Natural Gas Leakage Abatement Best Practices," outlines technologies and practices that may help gas utilities reduce natural gas leaks, recommends that the Commission develop a new methane leak grading system which meets the intent of SB 1371 and proposes updated definitions for Grades 1 and 2 leaks.

The Nature Conservancy has released its report, "Estimating the Water Supply Benefits from Forest Restoration in the Northern Sierra Nevada," finds that "investing in forest and meadow restoration" in the Sierra Nevada could increase water supply and reduce fire risk.

California Dept. of Water Resources has released "California's Most Significant Droughts: Comparing Historical and Recent Conditions," compares current drought to droughts of 1929 to 1934, 1976 to 1977 and 1987 to 1992, finds water years of 2012-14 have been "California's driest three consecutive years in terms of statewide precipitation."

### Appointments

The Governor appointed:

To California Water Commission: Paula Daniels, Los Angeles, Pritzker Environment and Sustainability Education Fellow; Jose Del Bosque Jr. (reappointed), Los Banos, partner at J and G Contract Labor Inc. and president of Empresas Del Bosque Inc.; Maria Herrera, Visalia, community development specialist at Self-Help Enterprises.

Reappointed to California Transportation Commission: James Earp, Roseville, executive director at the CA Alliance for Jobs; Carl Guardino, Monte Sereno, president and CEO at the Silicon Valley Leadership Group; James Madaffer, San Diego, president of Madaffer Enterprises Inc.

The Senate Rules Committee appointed former State Senator Lou Correa, Santa Ana to High-Speed Rail Commission.

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## ARTICLE

## ASCE Seminar Announcement

ASCE Geographic Services is proud to announce the Continuing Education schedule of seminars and workshops for spring and summer scheduled in your geographic area. These seminars/workshops have been produced by ASCE's Continuing Education Department with your members in mind.

Program	State	City/State
Seismic Design of Highway Bridges	May 14–15, 2015	San Francisco, CA
HEC-HMS Computer Workshop	May 28–29, 2015	Long Beach, CA
CM-at-Risk: Contracting for Owners, Consulting Engineers, and Contractors —NEW	June 18–19, 2015	San Diego, CA
Industrial Buildings: Design and Renovation —NEW	June 25–26, 2015	San Francisco, CA
Aluminum Structural Design with the 2015 Aluminum Design Manual —NEWLY UPDATED	July 16–17, 2015	Long Beach, CA
Risk-Based Seismic Design and Evaluation	August 13–14, 2015	San Francisco, CA
Progressive Collapse Mitigation: Practical Analysis Methods and Proven Solutions	August 20–21, 2015	Long Beach, CA
Design and Installation of Buried Pipes	September 10–11, 2015	San Diego, CA



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