CalGeo℠

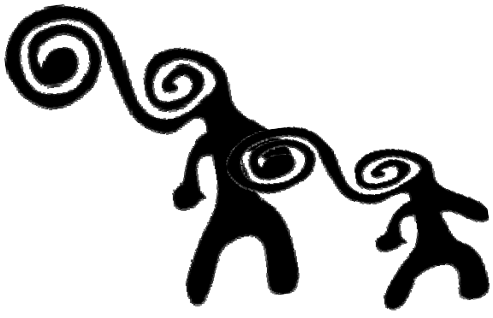
The California Geotechnical Engineering Association

LET IT FLOW ON THE BIG ISLAND

Annual Conference

Big Island, HI

April 26-28, 2017



Early Bird Registration by February 28, 2017

Conference Program – Let It Flow...

April 26, 2017 Day01

Golfers, set your clock for an early tee time and a morning of fun sport and friendly competition! The "Lava, Lava Open" golf tournament will take place at the Hapuna Golf Course. Hapuna Golf Course has it all – a rugged Hawaii beauty that comes of greens set amidst a dark lava field, seemingly endless ocean and coastline views, challenging play and a full range of facilities and services. The course is a favorite among vacationing guests and local residents alike.

The CalGeo Past Presidents in attendance will be treated to a long, leisurely lunch in which they will have the opportunity to discuss the issues of the day and how they can help direct us to the best solutions.

Registration will begin in the early afternoon, and the Exhibitors will use this afternoon to set up their exhibits.

That evening we'll hold our Welcome Reception poolside. This is the perfect time to relax, enjoy some great food and drink, Hawaiian style, and mingle with old and new friends.

April 27, 2017 Day02

MORNING — SESSION ONE

After a light breakfast that includes a cultural overview and Hawaiian blessing, our conference will open with the General Membership Meeting where we will vote in our new Board, introduce any new members, and bring the group up-to-date on the state of the organization.

Risk Management and Review of Important Cases and Analyses Affecting Geotechnical Professionals

Gary Jacobsen, Esq. is a frequent speaker at numerous seminars involving geotechnical professionals, architects and environmental issues. He specializes in the representation of geotechnical engineers, all other engineering disciplines and architects. He is a member of the prestigious American Board of Trial Advocates (ABOTA) and has successfully argued appeals before the California Appellate courts. He has received the Martindale-Hubbell AV Preeminent (including judicial) peer review rating for the highest possible rating in both legal ability and ethical standards. He has received the Distinguished Lawyer designation from the Expert Network, which is only conferred upon the top 3% of lawyers in the nation.

The scope of Mr. Jacobsen's presentation will address risk management for geotechnical engineers and a review of the most significant cases directly affecting geotechnical professionals. The overview will address important issues and matters including risk management, contractual provisions/language, privity of contract, economic loss rules, mediation/arbitration agreements, assignments, duty of care/ standard of care, and significant legal trends.

AFTERNOON — SESSION TWO

Luncheon Presentation

Pango Wrap: Revolutionary New Termite/Vapor Barrier

Lunch sponsor, Stego Industries, LLC is involved in the research, design, development, production and marketing of proactive moisture solutions for use in various construction-related applications.

Presenters Dayne Dietrich and Nate Sprenkel are the Southern and Northern California Regional Associates for Stego Industries, respectively. They work collaboratively in providing personalized assistance to the design and construction communities by providing site support services, educational seminars, and serving as trusted advisors with a specialized knowledge of the products, standards, and guides of the industry.

Subterranean termites cause billions of dollars in building damage annually and experts estimate that termites damage more than 600,000 homes in the United States each year.

Pango Wrap Termite/Vapor Barrier is a below-slab physical barrier against Formosan termites and moisture vapor. Through patented and trade secret processes, Pango Wrap combines uniquely designed barrier materials with the flexibility and strength of extruded, high-performance polyolefin film into an easy-to-install, physical barrier against subterranean termites. Unlike chemical sprays that do nothing to prevent other contaminants from entering the building, Pango Wrap is a true vapor barrier as well as a termite defense barrier. With this two-in-one solution the product provides long term protection that saves time and labor costs during construction. Pango Wrap provides a sustainable and effective solution for the market.

Downdrag and Dragload Behavior of Piles Based on Blast Liquefaction Testing

Dr. Kyle Rollins received his BS degree from Brigham Young University and his Ph.D. from the University of California at Berkeley. After working as a geotechnical consultant, he joined the Civil Engineering faculty at BYU in 1987 following after his father who was previously a geotechnical professor. His research has involved geotechnical earthquake engineering, deep foundation behavior, bridge abutment behavior, collapsible soils and soil improvement techniques. He has published over 160 technical papers and supervised 125 graduate students. His work has been recognized by ASCE with the Huber research award and the Wellington prize. In 2014, he received the Jorj Osterberg Award from the Deep Foundations Institute and in 2009 he was the Cross-Canada Geotechnical lecturer for the Canadian Geotechnical Society.

Frequently, deep foundations extend through liquefiable sand layers and bear on more competent layers at depth. When liquefaction occurs, the skin friction in the liquefied layer would be expected to decrease to near zero; however, as pore pressure dissipates and the liquefiable layer settles, negative skin friction could potentially develop around the pile in this layer. To investigate this phenomenon, axial load tests were performed on instrumented full-scale driven piles, augercast piles, and micropiles before and after blast-induced liquefaction. Tests were performed at sites in Canada, New Zealand and Italy. Typically, following liquefaction, the ground around the pile settled significantly. (3 to 11 inches). Skin friction in the liquefied layer dropped to essentially zero after liquefaction. However, negative skin friction equal to about 50% of the pre-blast positive skin friction developed as the liquefied soil reconsolidated. The neutral plane method provided reasonable estimates of the resulting pile settlement which was often quite small in comparison to the maximum ground settlement. When applied load caused the pile to settle more than the surrounding soil, negative friction changed to positive friction.

Hawai'I Volcanology for Technically-Inclined

Dr. Jim Kauahikaua is a geophysicist and a former Scientist-in-Charge of the U.S. Geological Survey's Hawaiian Volcano Observatory (HVO). He received his BA in Geology from Pomona College in 1973, his Masters degree from University of Hawai`i in 1976 and his Ph.D. from the same institution in 1982. Jim has worked for the U.S. Geological Survey since 1976, first for the Branch of geophysics in Denver, then at the Hawaiian Volcano Observatory in 1988 where he has studied the current eruption of Kīlauea volcano and past eruptions of Mauna Loa and Hualālai volcanoes using both English and Hawaiian language sources. A geophysicist by training, Jim has partly morphed into a physical volcanologist, taking special interest in the formation and evolution of lava flows and lava tubes, applying geophysical techniques to map them.

Dr. Kauahikaua will describe the work of HVO and provide a primer on Hawai'i volcanology and volcano hazards. HVO was the first volcano observatory established in the U.S. in 1912 and is now one of five operated by the U.S. Geological Survey. He will describe what is happening at Kīlauea volcano which has been erupting almost continuously since 1983. Activity over the past 34 years includes lava fountains, lava lakes, lava flows, and lava entering the ocean. Jim will also provide an update on nearby Mauna Loa which is currently showing clear signs of restlessness.

The afternoon and evening of Day Two is open for your own leisure activity.

April 28, 2017 Day03

MORNING — SESSION THREE

Geotechnics for Renewable Energy Projects

Michael W. Laney, P.E., G.E., P. Eng is a senior engineer at Terracon, working out of their Lenexa, Kansas, office. He provides technical oversight and marketing support for geotechnical and construction materials testing services for wind, solar, nuclear, transmission and conventional energy projects. Michael has served on the board of directors for CalGeo from 2006, and was Past-President (2015-16). He has also worked with the California State Board of Professional Engineers, Land Surveyors and Geologists (BPELSG) and provided expert engineer review services for the State for reported enforcement actions regarding geotechnical issues in California. He has over 23 years of experience that includes site feasibility studies, geotechnical drilling investigations, soils and materials laboratory testing, forensic studies, and report writing.

Renewable energy projects are becoming more common across the United States as the need for better methods for developing energy other than fossil fuels becomes more critical. These projects, primarily wind and solar farms, have specific geotechnical needs that are different than conventional industrial/commercial projects. This presentation will discuss the opportunities, standard of practice, foundation systems and balance of plant issues that a geo-professional should be knowledgeable on to perform this work.

The 2017 Labor and Employment Law Eruption

Van Allyn Goodwin is a Senior Shareholder in the San Diego Office of Littler Mendelson, P.C. Van has been a frequent presenter at past CalGeo programs regarding California prevailing wage and other employment law topics. His practice covers the full spectrum of labor and employment law, and he is one of the firm's experts in the area of State and federal prevailing wage laws. He also devotes a significant portion of his practice to counseling and representing employers in all facets of employment and labor law, including wage and hour matters.

Mr. Goodwin's presentation will include a summary of new labor and employment laws and cases affecting California employers, with an emphasis on those that specifically affect geotechnical consulting firms. It will also include a discussion of recent Prevailing Wage Law developments, and the new labor and employment laws, regulations and policies that employers can reasonably expect from the Trump Administration in 2017.

AFTERNOON — SESSION FOUR

Outstanding Project Awards Luncheon

Following our morning session, CalGeo will be hosting our annual Outstanding Project Awards luncheon lead by immediate Past President, Larry Taylor. Larry will announce the winning project(s). Each winning firm will give us a brief overview of the project and be presented with a beautiful trophy for their office. Our Student Outreach committee will also present the Rising Star Award to this year's winning student chapter.

Evaluation of Lateral Spread Prediction Equations for M8 Earthquakes

Dr. Kyle Rollins will be joining us again for this afternoon's presentation. Because earthquakes larger than Mw8 are relatively rare, empirical models for predicting lateral spread displacement have not been calibrated for larger magnitude events. In this paper, lateral spread case histories from the Mw8.8 Maule Chile earthquake are used to help understand the strengths and weaknesses of various empirical models for predicting lateral spread displacements. Predictions from five empirical models commonly used in engineering practice are compared with measured displacements. In addition, recommendations for improving the accuracy of these models are suggested. The model that best matched the measured displacements used local attenuation relationships to predict ground motions rather than simple magnitude and distance terms. In contrast, models that used magnitude and distance directly often predicted unreasonably large displacements for this subduction zone earthquake where the horizontal distance to the zone of energy release was often zero over large areas. Nevertheless, soil properties such as the T15 thickness, the fines content, and the mean grain size were useful in predicting displacement. Models that used shear strains typically over-predicted measured displacements but using a depth-based reduction factor improved accuracy. Similarly, current CPT-based empirical equations generally over-predicted measured displacements.

3D Slope Stability Analyses in Practice

KEYNOTE SPEAKER, Dr. Timothy D. Stark has received a number of awards for his research, teaching, and service including recently: "Best Geosynthetics International Paper for 2015", from International Geosynthetics Society, 2016; 2015 James M. Hoover Lecturer, Iowa State University; Thomas A. Middlebrooks Award from the American Society of Civil Engineers (ASCE) in 2013 and 1998; Editor of the Year by the ASCE Journal of Geotechnical and Geoenvironmental Engineering, 2011; R.M. Quigley Award from the Canadian Geotechnical Society, 2006; R.S. Ladd ASTM Standards Development Award from the ASTM, 2014, 2011, and 2002, and Walter L. Huber Research Prize from ASCE, 1999.

This presentation will describe the use of 3D slope stability analyses in practice. In particular, this presentation will use field case histories to show the difference between 2D and 3D factors of safety is most pronounced in translational failures. Two-and three-dimensional slope stability analyses of field case histories and a parametric study of a typical slope geometry show that commercially available three-dimensional slope stability programs do not account for: (1) shear resistance along the sides of the sliding mass; (2) stress-dependent strength envelopes; and (3) internal forces in the slide mass. These limitations can affect the calculated factor of safety for a translational failure mode. A technique is presented to overcome some of these limitations and provide a better estimate of the 3D static and seismic factors of safety. Field case histories are presented to show the importance of using a 3D analysis in inverse analyses and design of slopes with complicated topography, shear strength conditions, and/or pore-water pressures. Finally, the presentation will discuss 3D factors of safety (FS) that should be used to achieve the same level of safety as a 2D FS.

Close of Conference

Under the Sea, and below the shore, there is a special party in store! Attendees are *o-fish-ally* invited to *dive in* and enjoy some fun with our closing night event – *swimming* with fun, food, frivolity and…fish! *Splish, Splash*, join the bash and dress for the theme in your own special way. We will also be holding our ever-popular silent auction to raise money for our Student Outreach Program. Your donated items for the auction would be greatly appreciated.

...Hapuna Beach Prince Hotel

HAPUNA BEACH PRINCE HOTEL
HAWAII ISLAND

62-100 Kauna'oa Drive, Kohala Coast, HI

The magnificent Hapuna Beach Prince Hotel is nestled in natural bluffs above the sea and overlooks the beautiful white sands of world-class Hapuna Beach. Every oversized, spacious guest room offers ocean and sunset views from private, furnished lanai. The resort offers innovative cuisine, an 18-hole golf course designed by Arnold Palmer and Ed Seay, a pool, spa and fitness center.

The hotel's contemporary, modern style beautifully sets off the palm-filled, manicured gardens and the tropical blues and greens of sky and sea. And of course there's the natural beauty of the Kohala Coast itself.

...Hotel Reservations

CalGeo's room block will be open for reservations through April 7, 2017. Please make your room reservations early. The hotel cannot guarantee room availability after the April 7th cut-off date. Group rates are based on single or double occupancy. There is no additional charge for kids 18 and younger when accompanied by an adult, using existing bedding. Maximum room occupancy is (2) adults, 3rd adult person will be charged. Group rates are available three (3) days pre and post conference dates, based on availability. CalGeo's special conference rate is for a Run of Ocean Room – at $209/day (does not incl.taxes/fees) and includes free self parking, in-room internet, in-room coffee, access & use of fitness facilities, and reciprocal guest signing privileges at the Mauna Kea Beach Hotel next door.

To make your hotel reservations:

Call for Reservations at (800) 882-6060 before April 7, 2017,and ask for the CalGeo Group block, or email reservations@princehawaii.com.

...Optional Activities

"The Lava, Lava Open" Golf Tournament, Wednesday, April 26, 2017 at the Hapuna Golf Course (golfers should arrive the night before). Separate registration form enclosed.

Hapuna Spa at Hapuna Beach Prince Hotel gives 10% off spa treatments for CalGeo Guests – call (808) 880-3335

CalGeo recommends the Grand Circle Island Tour through Roberts Hawaii. It is an all day tour that picks up and drops off at the hotel, and runs 7 days a week. They'll be many stops on this tour including Hawaii Valcanoes National Park, steam vents, Fern Tree Jungle, lava tubes, black sand beaches, Rainbow Falls, museums and other sites of interest. The cost is $92/adult when reserved online. To reserve your spot, go to robertshawaii.com and click on Hawaii Island tours.

...Conference Registration

Mail: All registration materials are included in the package. Please complete the appropriate forms and return them to CalGeo along with your check made payable to CalGeo. Mail payments to: CalGeo, P.O. Box 1693, Placerville, CA 95667-1693.

To register on line, and pay by credit card, go to www.calgeo.org, click on "2017 Annual Conference" under "Upcoming Events", and "Register". You may also register online but mail your check, if you prefer. Early bird registration is until February 28, 2017.

Questions? Call CalGeo at (530) 344-0644

Mahalo to our conference sponsors:

FARRELL DESIGN-BUILD

HAYWARD BAKER
A KELLER COMPANY

STEGO INDUSTRIES, LLC

Let It Flow on the Big Island

Cal Geo Annual Conference April 26-28, 2017

Registrant Information

Your Name _____

Spouse/Guest Name _____

Company Name _____

Company Street Address _____

City/State/Zip _____

Company Telephone _____

E-mail Address _____

Name(s) of Added Guest & Child Registrants * _____

REGISTRANT FEES

Full Registration for Members includes all functions except optional activities.
Spouse/Guest Registration includes: Wednesday Welcome Reception, Breakfast on Thursday & Friday, and Friday Closing Event.
*If bringing your children, please call CalGeo office for pricing to attend guest events.

REGISTRANT TYPE		Early Bird (By Feb. 28)	Regular (Mar. 1 – Mar. 31)	Late (After Mar. 31)	AMOUNT
Member Full Registration		$790	$900	$1,000	$
Member Spouse/Guest	____@	$450	$500	$550	$
Thursday Only Sessions**		n/a	$300	$400	$
Friday Only Sessions**		n/a	$300	$400	$
Non-Member Full Registration		n/a	$1,000	$1,200	$
Non-Member Spouse/Guest		n/a	$550	$650	$

** Thursday and Friday One-Day Only registration includes breakfast, luncheon, and sessions for that day. One-day registration does not include Wednesday events or Friday night closing event. To attend both Thursday and Friday events, you must register as a full registrant. One-Day Only sessions are not available for spouse/guest.

OPTIONAL			
"Lava, Lava Open" Golf Tournament - Self		$105	$
Spouse/Guest Golf Tournament	____@	$105	$

Please include all "Optional Event" sign-up forms with this registration.

Do you have any special menu requirements? (we are able to accommodate vegetarian, vegan, gluten free)

GRAND TOTAL $

PAYMENT INFORMATION

If mailing Registration and Payment to CalGeo, it must be POSTMARKED NO LATER THAN March 31, 2017. (Early Bird by Feb. 28, 2017). Please return all registration forms (this and optional forms) with your check.
If you wish to Register and/or Pay by credit card, you may do so at our website, www.calgeo.org.

HOTEL reservation deadline is April 7, 2017. CONFERENCE registration deadline is March 31, 2017.

:::OVER::: for more info

CALCULATING YOUR REGISTRATION FEES:

- ✓ Registration fee amounts are based on POSTMARK dates.
- ✓ "Early Bird" registration fees apply to registrations postmarked on or before February 28, 2017.
- ✓ "Regular" registration fees apply to registrations postmarked between March 1 and March 31, 2017.
- ✓ "Late" registration fees apply to any registration postmarked April 1st, or later.
- ✓ Non-member rates are higher, but the same postmark dates apply.
- ✓ Incorrectly calculated registration fees will be invoiced to the company.
- ✓ If you or your guest decide to participate in an event for which you did not pre-register or pay for, your firm will be invoiced after the conference.
- ✓ Be sure to include your Optional Event registration forms, with your payment.
- ✓ Please… keep a copy of your registration information for your files.
- ✓ If you have any questions regarding completion of these forms, please call Marsha Myers at 530.344.0644 or e-mail her at mmyers@calgeo.org.
- ✓ *Don't forget your hotel reservations!* Call for Reservations at (800) 882-6060 or by emailing reservations@princehawaii.com before April 7, 2017 and ask for CalGeo's group rate. Room rates revert to "rack rates" after their reservation deadline (April 7, 2017), and the hotel cannot guarantee room availability after that date. Don't delay on this step! You may cancel your hotel reservation directly with the hotel 30 days and more prior to arrival without penalty. Cancelation between 30 days and 14 days prior to arrival, 2 nights room charge is assessed. Cancelation 14 days and less and no shows will be assessed a fee of 3 nights room charge.

Please calculate the GRAND TOTAL amount due based on your choices shown on the front. You may pay online at calgeo.org or make your check payable to CalGeo and mail it to:

CalGeo-Annual Conference Registration
P.O. Box 1693
Placerville, CA 95667-1693

After the registration is received, a confirmation e-mail will be sent to you at the address shown on the other side. (You should also receive a confirmation from the hotel for your room reservations). Those who wish to play golf will want to arrive Tuesday, April 25 in order to accommodate the early tee times Wednesday. (You will receive tee times and pairing information from Martin McIlroy and/or Mike Cazeneuve). Non-golfers will want to arrive early enough to check in and register prior to Wednesday afternoon & evening events, April 26, 2017.

If there will be more than one attendee from your firm, please *submit one form per employee.*

Cancellation Policy: Cancellation of your registration is permitted up to March 31, 2017. Cancellation must be written and faxed to 530.344.0834, or via e-mail to mmyers@calgeo.org. Note that any cancellation request received AFTER end of business on March 31, 2017 is not subject to refund, however substitutions are allowed.

Please contact the CalGeo office at 530.344.0644 if you have any questions.

Let It Flow on the Big Island

Cal Geo Annual Conference April 26-28, 2017

"Lava, Lava Open" Golf Tournament
Hapuna Golf Course

Golf Tournament Registration Form
Date of Play: Wednesday, April 26, 2017

Your Name: _____

Spouse/Guest Name: _____ (if playing golf)

Company Name: _____

Company Telephone: _____

Company Fax: _____

Company E-mail: _____

Do you have any pairing preferences? (if so, please specify)

Self: Spouse/Guest: (if playing)

_____ _____

_____ _____

Date of tournament: Wednesday, April 26, 2017
Cost: $105. Golf fee includes green fees, cart, range balls. Club rentals are available.
Proper golf attire is required.
Tee times will be advised once all golfers are registered. We will start early!
We recommend golfers arrive at the hotel on April 25th.

Please return this completed form with your registration to:

CalGeo – Annual Conference
P.O. Box 1693
Placerville, CA 95667-1693
V: 530.344.0644
F: 530.344.0834
E/M: mmyers@calgeo.org

Let It Flow on the Big Island

Cal Geo Annual Conference April 26-28, 2017
Conference Schedule

Wednesday, April 26, 2017:

7:00 a.m.	"Lava, Lava Open"-Golf Tournament
12:30 p.m.	Past Presidents' Advisory Council Lunch Meeting
2:00 p.m.	Conference Check-In/Registration & Vendor Display Set-up
6:00 p.m.	Welcome Reception (for all registered individuals*)

Thursday, April 27, 2017:

7:30 a.m.	Buffet Breakfast with Hawaiian Blessing (for all registered individuals*)
8:30 a.m.	General Membership Meeting
10:15 a.m.	Risk Management and Review of Important Cases and Analyses Affecting Geotechnical Professionals Presented by: Gary Jacobsen, Esq.
12:00 p.m.	Luncheon Presentation: Pango Wrap: Revolutionary New Termite/Vapor Barrier Sponsored by Stego Industries, LLC and presented by: Dayne Dietrich & Nate Sprenkel
1:30 p.m.	Downdrag and Dragload Behavior of Piles Based on Blast Liquefaction Testing Presented by: Dr. Kyle Rollins
3:00 p.m.	Hawai'i Volcanology for Technically-Inclined Presented by: Dr. Jim Kauahikaua
4:30 p.m.	Free Time

Friday, April 28, 2017:

7:30 a.m.	Buffet Breakfast (for all registered individuals*)
8:30 a.m.	Geotechnics for Renewable Energy Projects Presented by: Michael W. Laney, P.E., G.E., P. Eng.
10:00 a.m.	The 2017 Labor and Employment Law Eruption Presented by: Van Goodwin, Esq.
11:30 a.m.	Outstanding Project Awards Luncheon Presented by: Immediate Past President Larry Taylor
1:30 p.m.	Evaluation of Lateral Spread Prediction Equations for M8 Earthquakes Presented by: Dr. Kyle Rollins
3:00 p.m.	3D Slope Stability Analyses in Practice Keynote Session presented by: Dr. Timothy D. Stark
6:00 p.m.	"Under The Sea" Closing Night Banquet (for all registered individuals*) Student Outreach Fund Raising Auction

*for registered attendees and quests