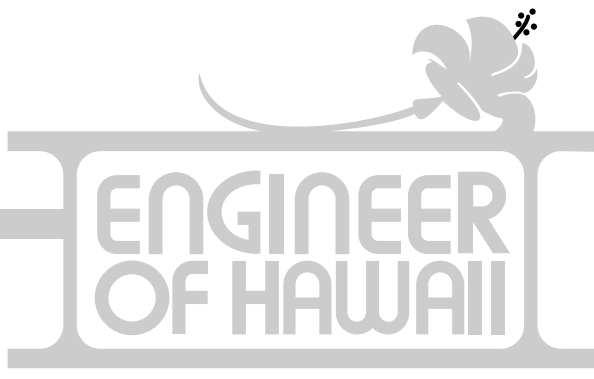


wiliki o hawaii



VOL. 58 NO. 6

SERVING 2000 ENGINEERS

AUGUST 2022

2022 eENGINEERS AND aRCHITECT OF HAWAII 120-YEAR ANNIVERSARY

By Sam Gillie eaH Secretary

2022 marks the 120th year since the **engineers and architects of Hawaii** was founded in 1902 as the Honolulu Engineering Association. This is a history update to research

by the late **Dr. Constantinos Papacostas**, an eaH past President, and a talking automatic slideshow prepared for eaH's 75th anniversary for Engineers Week, which was narrated by

Walter Gibbons in 1977. The 1977 narrated slide show can be viewed at eaH's YouTube channel. Costas decided to join eaH after finding many monthly articles about the engineering association in old newspapers when he was researching ASCE's history. He had quickly discovered eaH predated ASCE's founding in 1938 by 36 years. Walter Gibbons rarely missed a Friday meeting despite being wheelchair bound. He traveled to the weekly meetings in a motorized tricycle, which he'd had customized so that he could drive the tricycle while sitting in his wheelchair.

Our logo is a representation of the letters **e - a - H**. How the letters are combined into the logo can be viewed during the introduction of one of the latest videos on eaH's YouTube channel. The logo was designed by a draftsman at Belt Collins and Associates, unfortunately, his name maybe lost.

An article in the 1906 Commercial Advertiser told the story that the need for a professional engineering association in Honolulu was discussed during the first meeting of a group of engineers who had gathered on February 1, 1902, to discuss electrical fuses at Hawaiian Electric. The group decided to form such an association naming it the Honolulu Engineering Association and elected Robert S Fricke as temporary President. Over the next two months they drafted the Constitution and By-Laws and in April they elected **Alonzo Gartley** as the first President for a term of 6 months.

Robert Fricke left his home in Goslar, Germany after finishing high school and arrived in Hawaii in 1896 at the age of 18 to accept a position of Luna or overseer for the Waianae Sugar company. Since he was hired as a Luna it is likely his high school was a technical apprenticeship, which would have been common in Germany. He also was an inventor of labor-saving devices employed in the harvesting of sugar cane, one being the **'Fricke' Cane Car**.

Alonzo Gartley was working at United Gas Improvements Company in Philadelphia, when he was hired as the Manager of Hawaiian Electric in 1900. The Manager was also the business manager at Hawaiian Electric, not the President. It wasn't until another eaH Past President **Leslie Hicks** became Hawaiian Electric President in 1943 that the President assumed responsibility for business management. The Engineers Club of Philadelphia was founded in 1878 and is still very active today. Since Clubs were very much part of Society at that time, Alonzo likely attended meetings or had been a member. In

continued on page 4

1902 Robert S. Fricke Head Luna Oahu Sugar	1902-4-5-7 Alonzo Gartley Manager Hawaiian Electric	1905 George Ewart Manager Hawaii Sugar Kauai	1906 Edward Brown Dearborn Chemical
1909-10-11-18 John Young Dean UH Engineering	1913-14 R. Renton Hind Engineer H. Hackfield	1919 Arthur R Keller Chair Civil Engr College	1920 John Wilson Honolulu Mayor - Civil Engr
1921 Thomas McGraft Supr Hawaiian Electric	1924 George Wright Honolulu Mayor - Surveyor	1925 James L Young Pres Young Engineering	1926 George Collins Bishop Estate Trustee
1927 Robert King Territorial Surveyor	1928 Hugh Howell Federal Hydraulic Engr	1929 Louis Whitehouse C&C Chief Engineer	1930 Frederick Ohrt Manager Board of Water
1932 Leroy C Bush Mngr. Honolulu Rapid Transit	1933 Leslie Hicks Chief Engr Hawaiian Electric	1934 Charles W. Dickey Architect	1935 Harry P. Field Engr Hawaiian Electric
1936 Benjamin Rush Engr C&C Public Works	1937 John M Young Pres. Pacific Engineering	1938 Herbert K. Keppeler Manager, Bishop Estate	1940 Joseph F. Kunesh Dir Territorial Planning



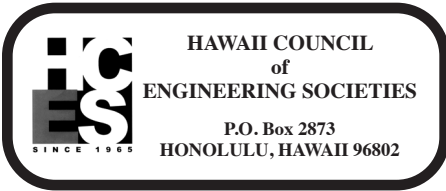
Published monthly by:

HAWAII COUNCIL OF ENGINEERING SOCIETIES
SERVICE PRINTERS, INC.

1829 Dillingham Boulevard • Honolulu, HI 96819
Telephone: (808) 841-7644 • Fax: (808) 847-1487
ADDRESS ARTICLES FOR PUBLICATION TO:
WARREN YAMAMOTO
1526-C Pukeye Avenue • Honolulu, HI 96816
Telephone: 732-5216

WILIKI MAILING LIST

Additions and/or corrections to the Wiliki mailing list should indicate the proper society, institution or association. Corrections to email addresses should be submitted to your society coordinator.



HOME PAGE: hceshawaii.org
EMAIL: hcesorg@gmail.com

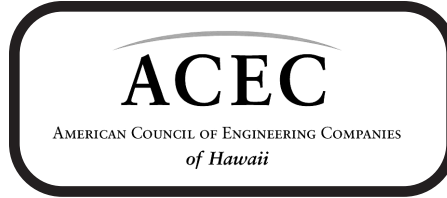
2021-2022 OFFICERS

Chair:	Roger Babcock	
Vice-Chair:	Jay Stone	
Secretary:	Open	
Treasurer:	Kristen Yoshida	
SOC	Representative	Alternate
AAEC	J. Uno	
ACECH	M. Adolpho	
APWA	R. Char	
ASCE	E. Arakawa	
ASHRAE	D. Kishi	S. Nakamura
ASME	A. Siu Ho	D. Sato
EAH	S. Gillie	
FALEA	M. Stevenson	
HSPE	M. Kamaka	K. Kunemine
HWEA	R. Babcock	
IEEE	E. Chang	
ITE	W. Yamamoto	J. Thomas
SAME	L. Wong	
SEAOH	K. Hashimoto	
SFPE	S. Dannaway	
SWE	K. Yoshida	
UHM CoE	S.K. Choi	



HAWAII CHAPTER OFFICERS

President: Robert Bigtas
Coffman Engineers
bigtas@coffman.com
Vice President: Derick Kam
NAVFAC Hawaii
Secretary: Ferdi Guinto
NAVFAC Hawaii
Treasurer: Sam Dannaway
Coffman Engineers
Director: Mel Harano
Thermal Engineering Corporation
Director: Bob Lohaus



ACEC Hawaii

Website: www.acechawaii.org

2022-2023 Board of Directors

President: Nimr Tamimi
Engineering Partners, Inc.
Kyle Kaneshiro
The Limitaco Consulting Group
Shannon Holman
Treasurer: Orion Engineers & Associates
Charles Jury
Secretary: Okahara and Associates, Inc.
National Dir.: Garret Masuda
Past Pres: InSynergy Engineering, Inc.
Derek Mukai
Community Planning & Engineering, Inc.
Directors: Timothy Goshi
KAI Hawaii
Ross Kaneko
Jacobs
Stacey Miyamoto
SSFMI International
Ginny Wright
Exec. Dir.:

ACECH Annual Meeting:

We are excited to start our new fiscal year with our new officers and directors. Congratulations to new Board members Director Stacey Miyamoto, SSFM International, and Director Timothy Goshi, KAI Hawaii. We would also like to thank Sean Sugai and Michele Adolpho for their time and dedicated service to this organization, and Derek Mukai for his leadership.

HAWAII SFPE SEMINAR PRESENTATION

NFPA 101 (2021 EDITION) Life Safety Code Essentials

The Hawaii Chapter of the Society of Fire Protection Engineers is sponsoring this excellent two-day seminar through a special arrangement with the National Fire Protection Association.

Date & Time: Two day seminar Tuesday September 14 to Wednesday September 15, 2022, 8:00 AM – 4:00 PM each day.

Location: Hale Ikena, the Golf Clubhouse at Fort Shafter, Honolulu

Cost: Early Registration (on or before September 7, 2022) \$800 per person (for two or more from same organization \$700 each)

After September 4, 2022, \$900 per person
ONLINE REGISTRATION & PAYMENT AVAILABLE AT
<http://sfpehawaii.memberlodge.org>

For payment by check, make payable to Hawaii SFPE, mail to Hawaii SFPE c/o 745 Fort Street, Suite 400, Honolulu, HI 96813.

Call to make Visa/Mastercharge payment over the phone.

For more information contact Sam Dannaway, Program Chair, Hawaii Chapter SFPE.

TEL(808)330-2667 / email: dannaways@coffman.com



2022-2023 Officers

President: Alicia Suzuki
president@hwea.org
Cari Ishida
vice-president@hwea.org
Treasurer: Amanda Tanaka
treasurer@hwea.org
Secretary: Brandon Uejo
secretary@hwea.org
Past Pres.: Jon Baker
past-president@hwea.org
PWO Rep.: Herman Ellis III
pwo-representative@hwea.org
Nat. Delegate: Kyle Yukumoto
national-director@hwea.org

Happy Birthday to HWEA!

The Hawaii Water Environment Association, formerly known as the Hawaii Water Pollution Control Association, was founded on August 9, 1962. Since it's inception, it has continued to provide programs for technical education and training to the water quality professionals in the Pacific Island Region.

HWEA General Membership Meeting (Virtual)

Join our August General Membership Meeting on August 17, 2022. Registration information can be found on our website at <https://www.hwea.org/index.php/hweaevents>.

2022 Biosolids & Co-Generation Workshop

The Hawaii Water Environment Association (HWEA) Biosolids/Co-Generation Committee is excited to invite you to attend the 2022 HWEA Bi-Annual Biosolids & Co-Generation Workshop.

The workshop will feature an informative technical program with Continuing Education Units (CEUs) opportunities, exhibits (featuring vendor booths), buffet luncheon, Pau Hana networking event, and pre-conference activity (optional, additional fee applies). For information and registration visit <https://www.hwea.org/index.php/hweaevents/conference/2022-biosolids-co-generation-workshop>.

City & County of Honolulu Stormwater Quality BMPs Workshops

The City & County of Honolulu is hosting educational workshops for stormwater quality Best Management Practices (BMPs) on August 25 to 26, 2022 in-person at the Hawaii Convention Center or online via InEvent. For information and registration visit <https://inevent.com/en/CCH-DFM/StormWaterQualityBMPsWorkshops2022/hotsite.php>.

WEFTEC 2022

WEF will be hosting WEFTEC 2022 on October 8 to 12, 2022 in New Orleans, Louisiana! Be sure to visit <https://weftec.org> for the latest updates and information about WEFTEC 2022.

Lua Line Summer Edition

HWEA is excited to announce the release of Lua Line Summer Edition! View the latest Lua Line at <https://www.hwea.org/index.php/hweamedia/lua-line-magazine>.

**2021-2022 Officers:**

President: Jasmine Teramae-Kaehuaea
jkaehuaea@atahawaii.com
 Vice Pres.: Keoni Wasano
keoni@goldwings-supply.com
 Sec/Treas: Mike Motoki
 C&C of Honolulu, DTS

August 2022 Meeting Prep Information

Meeting Date: August 17, 2022

Venue: Virtual Meeting (District Zoom Account)

Topic: Honolulu Complete Streets Design Manual Update

Crossing Treatments at Uncontrolled Locations

In September 2016, the City and County of Honolulu's Department of Transportation Services, with the help of SSFM and other transportation sub-consultants, published Honolulu's first Complete Streets Manual. The **Honolulu Complete Streets Design Manual** sets forth design standards specific to Honolulu and provides guidance to planners, designers, and engineers to incorporate Complete Streets principles and features into projects in the City right-of-way. The Manual recommends multi-modal design solutions to increase mobility, improve road safety, and create sustainable communities and includes guidelines for uncontrolled crosswalks.

This latest update to the manual incorporates the FHWA's 2018 "Uncontrolled Pedestrian Crossing Guidelines" which includes Rectangular Rapid Flashing Beacons or RRFB's. DTS has asked SSFM to update the original 2016 crosswalk guidance at uncontrolled locations to include RRFB and other treatments. DTS and SSFM will be presenting the **revised guidance dated 4/13/22**.

Registration: Free (members)/
 \$10 (non-members)

Please register based on your current ITE International membership status.

Speaker Bios:

Kelly Akasaki is a Traffic Engineer at DTS with 22 years of experience. She is the Traffic and Alternate Modes Safety Branch Head and oversees traffic improvement projects, bicycle projects, Safe Routes to School Program, and Bicycle and Pedestrian Safety Programs.

Michael Packard, PE, PTOE is a Senior Traffic Engineer with SSFM. He's a "plangineer" with twenty years of public/private work experience in transportation planning, urban design, traffic engineering, traffic operations, and design of Complete Streets, bicycle, and pedestrian facilities.

www.asme-hi.com**ASME-HI 2021-2022 Officers**

Chairperson: Derek Sato
derek.sato@hawaiianelectric.com
 Vice-Chair: Abel Siu
 Secretary: Raymond Liu
 Treasurer: Kevin Dang
dangk001@hawaii.rr.com
 Member-at-Large: Shaun Idefonso
 Ed Chang

ASME-HAWAII NEXT GENERAL MEMBERSHIP MEETING

Date: July 22, 2022 (virtual)

Agenda: TBA

Time: 5:30 pm

As usual, all members, students and guests are invited and encouraged to attend our Zoom Conference Call meetings. Please contact Derek Sato for the link.

GENERAL MEMBERSHIP MEETING JUNE 17, 2022 NOTES

Our June 17 Zoom meeting arranged by Chair Derek Sato was attended by six members with the following discussed:

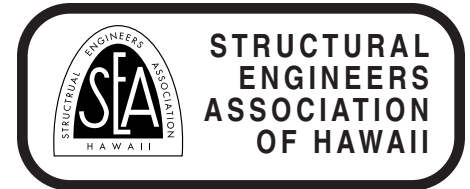
REVIEW OF THE SPRING ME-481/482 2022 FRANCIS R. MONTGOMERY DESIGN COMPETITION: The competition was completed May 6, 2022 on the UHM campus. Team placements: 1) SAE EV-Formula, 2) Robotic Space Exploration-Rover, 3) UH Advanced Balloon Satellite-8, 4) Reconfigurable Underwater Robotic Arm, 5) Hokulele-Rocket and 6) Autonomous Fixed Wing Drone. Thank you (Promotional) Hydroflasks were presented to judges. Award Checks were mailed to students, and the Award Certificates emailed to Dr. Mehrdad G. Nejhad for distribution.

POSSIBLE TOURS: Chocolate Factory in Kailua or Manoa: Cost \$15 per person with a limit of 8 persons and undecided if we will sponsor. Beer-Rum Factory and HECO not giving tours at this time. The following will be contacted: Star-Advertiser printing press, Water Park for a behind the scene (pumping plant) tour and Air-Gas processing plant, all three in Kapolei.

VOLUNTEER (SECTION OFFICERS) REQUIREMENTS FOR JULY 2022 – JUNE 2023 TERM:

Officers need to complete and submit the FY23 Volunteer agreement, and the FY23 Section Update Form. Member Justin Souza volunteered for the 3rd Member-at-Large position.

**Wiliki
 Advertisers
 Wanted**



PO BOX 3348, HONOLULU, HI 96801
 Web Page URL <http://www.seaoh.org>

2022 BOARD OF DIRECTORS OFFICERS AND DIRECTORS

President: Craig Meierhoffer
cmeierhoffer@baseengr.com
 Vice President: Michael Greer
mgreer@wje.com
 Secretary: Kevin Galvez
kgalvez@baseengr.com
 Treasurer: Corey Yamashiro
corey.h.yamashiro@usace.army.mil
 Director (Yr 2): Will Wong
wwong@gprmp.com
 Director (Yr 2): Justin Matoi
jmatoiwje.com
 Director (Yr 1): Channey Wada
wada.channey@gmail.com
 Director (Yr 1): Erik Christensen
Christensen.erik@us.sika.com
 Past President: John Uno
john@mkellc.com

PREVIOUS BOD MEETING

July 13, 2022

General Membership Meetings/Technical Seminars/Events

The August technical seminar will be online. Look for an upcoming email flyer for registration.

Membership Renewals

SEAOH is transitioning to Wild Apricot for 2022 membership renewals. Membership renewal notices have been sent out via email. If you have not yet received a notice, please contact any member of the board.

SEAOH Nominations

SEAOH will start looking for volunteers to be a part of next year's Board of Directors. If interested or know someone that is, please contact any member of the board.

2022 SEA OH Scholarship Golf Tournament

This will be the 10th anniversary of the SEA OH golf scholarship tournament and is scheduled for Friday, 04 November at Ko Olina! Please check seaoh.org for information on the scholarship application.

Membership Applications

The following applications were approved in the July Board meeting:

- Cheyne Constantino, Affiliate Member
- Glenn Koki, Affiliate Member
- Corbin Morisada, Affiliate Member
- Gregory Eng, Associate Member
- Reza Mirmoghtadaei, Associate Member
- Tommy Vuong, Associate Member
- Tristan Green, Associate Member
- Grace Arends, Member

Membership application was received from:

- Jiren Cao, Associate Member

Please contact any SEA OH Board Member by August 01, 2022, to file comments regarding any of the applicants.

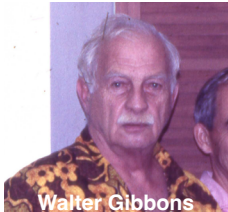
Next Meeting on Wednesday, August 03, 2022. For information, contact SEA OH President Craig Meierhoffer at cmeierhoffer@baseengr.com

eaH, from Page 1



any case Alonzo could see Hawaii needed such a club for engineers and likely had a good model for the association.

Also at the April 1902 meeting was **Henry Ginaca** from the Honolulu Iron Works, who would be recognized later that year for inventing his less famous Sugar Cane harvesting machine. His ASME distinguished



Engineering Landmark

Pineapple Coring machine (The Ginaca Machine) would be invented in 1911.

This article will start to fill in the gap in the early history of eaH between 1902 and 1928. From 1928 to 1963 eaH has maintained its weekly meeting Bulletins. These Bulletins are being cataloged and added to the eaH's WEB site *eaHawaii.org*. The article also puts faces next to the names of eaH's Past Presidents. The attached picture shows 24 of eaH's early Presidents.

eaH was founded when horse and buggies, sailing ships and railroads were in daily use in Hawaii. There were no airplanes and automobiles were still a novelty. The first adding machines would arrive in Honolulu in 1903. It was only two years since becoming a US territory in 1900 after the annexation in 1898. Hawaii had a population of 157,436, which included 347 Armed Forces.

Honolulu had dirt streets with few trees, but there was a working streetcar system. As cars became more popular, street paving materials and methods was a popular topic at early meetings. There was no air conditioning. Ice was no longer being shipped in from Alaska as Hawaiian Electric had established its ice monopoly, making and delivering ice to businesses and peoples' back porch ice boxes from about 1896.

Electricity was already an important part of society and businesses and one of the early goals of the organization was to standardize the electrical work for the City. This is something the association would later be officially tasked to do in 1925 that is to develop an Electrical Code for Honolulu.

An engineer in Hawaii in 1902 would have had the responsibility to tackle all technical problems at a Sugar Mill, power plant, electric grid or the new telephone systems starting to be installed. Hawaii's engineers had very few resources, to solve new engineering problems. There was no direct communication with the mainland as the first telegraph cable to Hawaii wouldn't become operational until 1903. The Commercial Advertiser printed a special 24 page 'Cable Edition' the day after the first telegraph message was sent and returned from the White House. It only took 13 minutes to send and receive the telegram!

The three principal engineering societies, for civil, mechanical and electrical engineers, (ASCE, ASME and IEEE) were founded in 1852, 1880, and 1884 respectfully. There were no local IEEE, ASME or ASCE chapters. The first Codes and Standards from these societies had either been recently published or were still

being drafted. Building codes were just starting to be adopted by mainland Cities. The first edition of the National Electrical Code (NEC) had been published by the NFPA in 1897. ASME's Boiler codes were not published until 1914, after massive boiler explosions around the nation. The College of Hawaii would begin classes in 5 years near downtown's Thomas Square. Hawaii's engineers were very much on their own.

By 1902 **Robert Fricke** had just been hired as the Assistant head Luna with Oahu Sugar. He would have been responsible for the complete operation of the sugar mill, which would have been burning bagasse, to produce steam to operate the mill and generate the plant's electricity. He would have had a good mechanical and electrical working knowledge of Sugar Mills, a real hands-on engineer as many "engineers" were at that time. But he would have been only 24 in 1902 and saw a good opportunity to attend a meeting on fuses with other engineers **Alonzo Gartley**, **Lieutenant Holmes** of the Navy, and **Robert Pratt** Chief Electrician at the Honolulu Iron Works.

It is not surprising that engineers of the time would want to seek out accurate engineering knowledge. Likely this strong desire for accurate and reliable technical knowledge was the germ that was started at the first eaH meeting on the simple electrical fuses. Another indicator of this desire for engineering knowledge is that at the 1902 May meeting, three months after the first meeting in February, the membership had grown to just short of 100.

eaH's 1977 history narrative listed Alonzo Gartley as serving as President from 1902 to 1906. As mentioned earlier, Presidents only served 6-month terms during this period. It was discovered that Alonzo served four terms as President, but there were four other Presidents during this period, **W. F. C. Hasson**, government wire inspector, **Robert Pratt**, electrical engineer, **W. E. Skinner**, Hawaiian Electric Engineer, and **George Ewart** Hawaiian Sugar Co.

In 1906, eaH's name was changed from Honolulu Engineering Association to Hawaiian Engineering Association to reflect that the association had members on all islands. **Edward C Brown** was elected for the first one-year term, but there was no other information for him. A Google search found a reference to Edward C Brown in an Historic Places Registration Form prepared by Fung Associates. Mr. Brown was the Manager for the Hawaii office for Dearborn Drug and Chemical Works for 11 years. The Dearborn company provided chemical water treatment for Sugar Mill boilers. Newspapers show Edward Brown gave talks to eaH on boilers and chemicals. After working in Asia and South America he returned to the mainland as a Vice President of the Company in New York. The historic 1928 reinforced concrete Dearborn building still exists at the corner of Ward and Kawaiahao streets.

Imagine being in an eaH meeting 120 years ago, at a time without PowerPoints, videos, overheads or slide shows or Zoom. Occasionally, they did have a type of slide show, it was provided by a 'Lantern' projector, operated with a very hot arc lamp. The slides were hand prepared on glass, so only special meetings would have had slides. Indeed, meetings that included Lantern slides were specially promoted.

It would be an evening meeting downtown.

You would have arrived on a mule drawn streetcar at the YMCA, a two-story brick building on the corner of Alakea and Hotel (now Bishop Square, Diamond head – Mauka corner). You would know that the invited speaker would have a prepared speech and would be a leader from the sugar industry, the Navy or Army, a power company, a neighbor island or mainland visitor or a politician.

The meeting was essentially a formal technical meeting, so speakers prepared type written papers on their subject, which they would read verbatim at the meeting. They might use the blackboard to illustrate a point. After the speaker read their paper, a discussion would be held. The speaker would have given the Secretary a copy of their typed paper before the meeting. The Secretary would have retyped the speech to make a mimeograph stencil and printed duplicate copies of the paper for members attending the meeting. The Secretary would mail a copy to members not attending and members on the neighbor islands. Sometimes the papers would be reprinted in the local newspaper. An example of that is a talk on Water Development on Maui by **Carl Waldeyer** on a Monday evening, November 22, 1904, where Mr. Waldeyer talked on constructing the Wailuku and Kauaula water tunnels. Word of the Engineering Association technical papers was somehow communicated to the mainland, likely by one of the visiting speakers. Several mainland libraries contacted eaH and requested that copies of the Association's meetings be sent to them. There were members from all islands, with members visiting Oahu specifically to attend or speak at a meeting. In fact, directors were elected to the Board to represent each neighbor island. The meeting room had a question box, which could be used by members to submit technical questions. Members would be assigned to Committees to get follow up information on speeches, something from the question box or a community issue. The committee would prepare a report and present it at the association meeting.

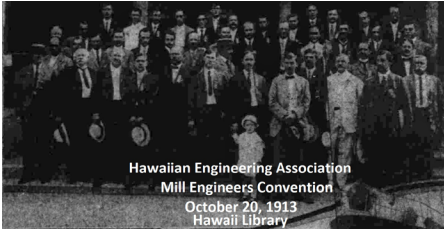
One of the first actions taken in 1902 was establishing a reading room at the Elite Building and later at the YMCA, both on Hotel Street. The room was open in the evenings from 7 to 9:30. It included a set of Britannica Encyclopedia and they subscribed to American and English technical magazines and periodicals. Later, a portable reading crate was also prepared, which was circulated between the neighbor island for those members.

Over the years, eaH met at the YMCA, the Castle & Cook bldg, the Kapiolani bldg, the Elite building, Hawaii College, and the Commercial club. In the 1940's eaH started meeting at the Laniakea YWCA in the Elizabeth Mullen Hall, where they met for over 60 years.

eaH was without question the premier professional organization in Hawaii for engineers and architects for its first 75 years. Attendance at evening meetings would average 30 to 60 and sometimes exceed 100. eaH had annual conventions, 'smokers' and 'bathing' meetings. Early bathing days were held at the Seaside Hotel, which is now the Royal Hawaiian Hotel and they even took the train to the Haleiwa Hotel. The late **Fred Kohloss** in the 70's would host eaH for the summer bathing day at his Waimanalo beach house. For a number of years eaH would organize a 3-day Mill Engineers Convention. The Convention board was made up of the association's Board

continued on page 5

eaH, from Page 4



members.

Even after the AIA chapter was founded in 1925, many or perhaps most architects continued their eaH memberships. The AIA chapter founding members, **Hart Wood, Charles Dickey, L. Emory, Marshal Webb, Ralph Fishbourne** and **Edwin Pettit** were all presidents or members of eaH. Well known past eaH president H. A. R. Austin was ASCE's first President after ASCE's Hawaii chapter was founded in 1938. Other past ASCE presidents, with eaH memberships or past eaH president, included, **Joseph Kunesh, Bernard McMorrow, Donald Austin, Frank Sunn, August Ahlf, Walter Lum, Gary Yamamoto** and **Constantinos Papacostas**.

An indication of the stature of the association can be measured by the number of Presidents and Members whose biographies can be found in the 8 volumes of the prominent Men & Women of Hawaii published between 1917 to 1972. Of the first 75 presidents - 44 were found in the volumes and over 100 members were also found. Interestingly, each biography would list between six to a dozen or more clubs and organizations they had membership in. eaH was one of those essential organizations for engineers and architects. In 1902 social and employment clubs, professional and fraternal associations played the essential roles that today's Facebook, Twitter, LinkedIn and YouTube play for networking and maintaining one's professional and social connections. It is clear these people found these organizations critical to the success in their careers and eaH members were proud to list in their bio's membership in the Hawaiian Engineering Association.

eaH has a distinguished leadership. eaH past presidents include 2 past **Mayors of Honolulu**: John Wilson (1920) and George Wright (1924); Bishop Estate Trustee: George Collins (1926); **notable architects**: Charles Dickey (1934), Vladimir Ossipoff (1946), Alfred Preis (1983) Geoffrey Paterson (2011); **Hawaiian Electric executives**, Alonzo Gartley (1902), Thomas McGrath (1921), Leslie Hicks (1933), Harry Field (1935), Jacob Gaskell (1943), Bill Bonnet (1977); **UH Professors**: John Young (1911); A R Keller (1919), Hans Krock (1982), Constantinos Papacostas (2009); **Board of Water Supply**: Fred Ohrt (1930). Also 16 members were, Engineer of the Year, Lifetime Achievement, Young Engineer of the Year or Past HCES chairs.

Congressional Delegate to Congress Samuel Wilder King's first political office was when he was appointed to the Board of Supervisors by Mayor George Wright (Past eaH President). Samuel King was a frequent speaker at eaH meetings during his visits home to Hawaii from Washington.

The engineers and architects members were key in Hawaii's transition from horse and buggies to cars, to planes, to winning World War II and to today's modern Hawaii. eaH saw the growth and decay of sugar and pineapple,

growth of the hotel and tourist industry, our military bases, development of our dirt roads to interstate highways, HART, our airports, electrical grids, telecommunication networks, refineries and water and wastewater plants.

eaH used to brag that the weekly Friday meetings have been held on every Fridays since 1902. This was not entirely accurate. But eaH does have copies of the weekly Bulletins from 1928 to 1962 and the Wiliki which show eaH has regularly met weekly for over 90 years.

eaH now meets biweekly in person and via Zoom. Selected meetings are prepared for eaH's Olelo weekly Series on Channel 53, which premiers on the second Wednesday at 6:00 pm and on Sundays at 1:00 pm. eaH currently has posted over 50 videos on the eaH YouTube channel. Visit eahawaii.org for getting meeting details to attend in Person or get the Zoom link. Visitors are always Welcome.

(eahawaii.org has backup historical pictures, newspaper articles, and biographs references for this article on the eaH History WEB page)



Hawaii Section 2021-2022 OFFICERS

www.aacehawaii.com

President	William Sparks
Vice President	Christopher Baze
Secretary	Mario Flores
Treasurer	Jeanette Roberts
Dir. Soc. Med.	Yong Shi
Past President	Christopher Kanae

As a member of the Board of the Council of Engineering and Scientific Specialty Boards (CESB), AAACE International offers a range of certification levels from technician to professional to expertise level including CCT, CCP, CEP, EVP and PSP Certification Programs.

Congratulations to our newly elected 2022-2023 AAACE Hawaii Section Board of Directors:

President – Christopher Baze (Hawaiian Dredging Construction Company)

Vice President – Mario Flores (Jacobs)

Secretary – Vinson Hiraoka (J. Uno & Associates)

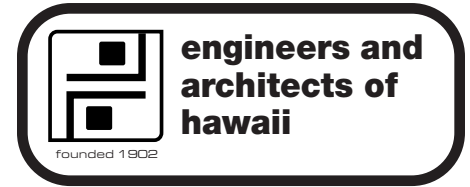
Treasurer – Jeanette Roberts (HECO)

Social Media – Yong Shi (Rider Levett Bucknall)

Past President – Will Sparks (Encore Group)

The local section, AAACE Hawaii, was originally established in 1973. It achieved both the Platinum and Gold Award for seven consecutive years 2014-2021. Our local area continues to achieve CCP, CEP, CST and PSP certifications. For more information, please visit <http://web.aacei.org/certification> and our local website www.aacehawaii.com.

**Deadline for
Wiliki
is August 15th**



PO. Box 1901, Honolulu, HI 96805-1901
An association for Hawaii's Engineers and Architects

WEB address: www.eahawaii.org

EAH 2021 Officers

President	Phil Blackman	282-7948
1st V. P.	Canaan Shon	845-3900
Treasurer	Aaron Erickson	591-2728
Secretary	Sam Gillie	
Director	Martin McMorrow	256-4713
Director	George Coates	234-5659
Director	Howard Wiig	587-3811
Director	Joe Feind	
Director	Dave Martin	543-4504

EAH July 2022 Programs

ATTENTION!!!

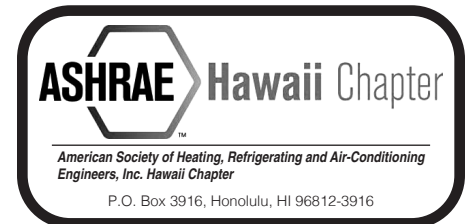
eaH has restarted in-person meetings at our old 301 meeting room in the Topa Tower and continues Zoom meetings as well. Email eahawaii@gmail.com if you plan on attending in-person or to get the Zoom invitation.

Upcoming meetings:

Friday August 5th Speaker: TBA

Friday August 26th Speaker: TBA

Visit website - eahawaii.org for meetings updates.



Hawaii Section Officers 2022-2023

President	David Lebowitz
Pres-Elect	Justin Choriki, PE
Vice Pres	Joshua McDonough, PE
Secretary	Jeanessa Slaughter
Treasurer	Charles Chaloeicheep, PE

Board of Governors

Matthew Tio, Samantha Nakamura, PE, Willie Diguc, PE, Marites Calad

Chapter Chairperson

Attendance and Reception: Michelle Leslie-Pa

Government Affairs Comm.: Kevin Luoma, PE

Historian: Matthew Tio

Membership Promotion: Jeanessa Slaughter

Newsletter Editor: Joshua McDonough, PE

Chapter Programs Chair: Chad Saito

Refrigeration Committee: Roland Graham

Research Promotion: Joshua McDonough, PE

Student Activities Chair: Antonio Isom

Technical Seminar & Product Show: Manny Masso

Chapter Technology Transfer Chair: Justin Choriki, PE

Webmaster Chair: Kalani Castro, PE

Electronic Communications Committee: Diamond-

Pony Pedro & David Lebowitz

Young Engineers of ASHRAE: Jason Soriano & Willie Diguc, PE

Sustainable Activities: Dan Mestas

Kokua Scholarship Committee: David Lebowitz,

Joshua McDonough, PE, Samantha Nakamura, PE

Nominating Committee: Marites Calad, Samantha

Nakamura, PE, Willie Diguc, PE



2021-2022 YMF Officers

- Claire Fukuoka, President
president.ascehawaiiymf@gmail.com
- Brandon Uejo, Vice President
vicepresident.ascehawaiiymf@gmail.com
- Lance Lam, Treasurer
treasurer.ascehawaiiymf@gmail.com
- Rebecca Pitts, Secretary
secretary.ascehawaiiymf@gmail.com
- Carly Kaneko, Past President
pastpresident.ascehawaiiymf@gmail.com

YMF General Meeting

The next YMF general meetings will be in-person on Wednesday, August 3, 2022 at 6:00 PM and Wednesday, September 7, 2022 at 6:00 PM. Please be sure to check out our website, social media channels, or weekly eblast for the most updated information on our upcoming general meeting and events. If you are interested in attending and learning more about the various professional, social, and service opportunities available through YMF, please contact YMF at *ymf.hawaii@gmail.com*.

Sky Ala Moana Jobsite Tour

On June 16th, 2022, sixteen ASCE YMF members toured the "Sky Ala Moana" high-rise construction jobsite. The tour was hosted by the general contractor, Albert C. Kobayashi, Inc. (ACK), and led by its president, Mr. Michael Young. Sky Ala Moana is a mixed-use condominium and hotel development on the mauka (mountain) side of Kapiolani Boulevard near Ala Moana Shopping Center. YMF members rode a man hoist and climbed up ladders to the active work deck on the 39th floor to see everything that goes into a concrete slab: reinforcing steel, post-tension cables,



electrical conduits and plumbing rough-in. At the lower floors, the members explored a residential unit being completed with finish materials and viewed the insides of an elevator hoistway "shaft" and pit. Special thanks to ACK for the opportunity!

Girl Scouts STEM Camp 2022

On Saturday, June 25th, 10 YMF volunteers ventured out to the Girl Scout's Camp Paumalu on the North Shore to teach the Girl Scouts about civil engineering. Volunteers helped the girls to build their very own working water filters and taught them about the engineering design process. Mahalo to the Girl Scouts for inviting us to this year's STEM camp, and thank you to all the YMF volunteers who came out!



ASCE YMF Job Shadow Program

The Job Shadow Program is looking for students and industry professionals that are interested in becoming a mentee/mentor. Your interest and participation through this program will provide a valuable experience that will help guide students towards a successful path beyond graduation! If you have any questions and/or to sign up*, please email the Job Shadow Program directly at *ymfhawaii.jobshadow@gmail.com*

*Note: Information collected will help the Job Shadow Program pair mentor(s) and mentee(s) up based on their experience and interest.

2022 PE Exam Update

The PE Exam is now computer-based with appointments available year-round at Pearson VUE test centers. Information about how to register for the exam and purchase study materials can be found on the YMF website: <https://ascehawaiiymf.org/pe-exam-information>

Online PE Refresher Course

The Hawaii YMF has partnered with Pathceed, an online PE Exam refresher course that covers the breadth portion of the civil engineering exam. This course features 12-hours of on-demand course materials that may be accessed for a 6-month period, and a one-time free access should you not pass the exam. Curious but want a sample of the course? There's a free 1-hour lesson you can check-out before committing to the program! Cost of the course is \$289 and we are offering ASCE Hawaii YMF members a \$40 discount when registering. If interested in signing up for this course, please contact us at *ymf808.pecourse@gmail.com* for more information.

Special Olympics Summer Games

On Saturday, June 18, 2022, seven members from the Hawaii Section ASCE YMF volunteered at the Special Olympics 2022 Summer Games hosted at UH Manoa. The 2022 Summer Games was held for the first time in two years, due to the pandemic. The Summer Games was a two-day event at UH Manoa, where athletes competed in three events: track and field, swimming, and powerlifting. YMF members worked as servers and bussers for a brunch put on for Special Olympics donors by Cheer for Champions. Thank you to all the volunteers for coming out to help with this event and to Special Olympics Hawaii for coordinating this event with the YMF.





2021-2022 ASCE Hawaii Section Officers

President: Clifford Lum, P.E.
 email: clum@ascehawaii.org
 Pres.-Elect: Reyn Hashiro, P.E.
 email: rhashiro@ascehawaii.org
 Vice Pres.: Eric Tomishima, P.E.
 email: etomishima@ascehawaii.org
 Treasurer: Sheila Uyeoka, P.E.
 email: suyeoka@ascehawaii.org
 Secretary: Steven Doo, P.E.
 Email: sdoo@ascehawaii.org
 Past Pres.: Dayna Nemoto-Shima, P.E.
 email: dnemoto@ascehawaii.org
 YMF Pres.: Claire Fukuoka, P.E.
 email: president.ascehawaiiyfm@gmail.com

EXECUTIVE COMMITTEE MEETING

Last held: July 12, 2022
 Next meeting: August 4, 2022

ASCE HAWAII SECTION DINNER MEETING

We will keep you informed via e-blasts and/or notices posted on our website at ascehawaii.org with the August meeting information and schedule.

Cost: (RSVP via Eventbrite)

OUTSTANDING CIVIL ENGINEERING ACHIEVEMENT (OCEA) AWARDS

The ASCE Hawaii Section seeks nominations for the 2022 Hawaii Outstanding Civil Engineering Achievement (OCEA) Awards, which honors the best and the brightest achievements within the local civil engineering industry. Various awards will be given to projects that demonstrate innovative and outstanding civil engineering accomplishments by Hawaii's design and construction professionals. Nominations are due by Friday, August 12, 2022, to the ASCE Hawaii Section Awards Committee, nleong@ascehawaii.org & smukai@ascehawaii.org.

The awards banquet will be held on Friday, September 30, 2022, at the Kahala Hotel. We are excited to host the banquet in person for the first time since 2019. We will be celebrating the 2022 OCEA nominees as well as recognizing winners from the past two years.

For more information on nominations and the awards banquet, please visit <http://www.ascehawaii.org/>.

ASCE's COVID-19 RESOURCES PAGE

<https://collaborate.asce.org/covid-19/home>

Reminder that ASCE has launched a COVID-19 resources page with online tools and tips in one convenient place. The page includes links to free programs, training, and resources, the results of COVID-19 industry impact surveys, and relevant online discussions with fellow members. The page also offers several ways to work more effectively while at home and activities to take advantage of in the down time you may have – even fun things to do with the keiki! And don't forget that all members have 10 free PDHs! Now may be a good time to catch up on some of those technical on-demand webinars.

COMMITTEE POSITIONS

ASCE Hawaii is looking for volunteers for various committee positions, including Advocacy Captain, Report Card Committee Members, and Water Resources Chairperson. If you are interested or have questions on any of these positions, please contact President Cliff Lum, clum@ascehawaii.org.

MEMBERSHIP

If you haven't already done so, please renew your ASCE membership, which includes 10 free PDHs. You can renew your membership at www.asce.org.

ASCE HAWAII SECTION STUDENT SCHOLARSHIPS

Please help us increase our scholarship endowment so that we can recognize deserving students. We continue to accept tax-deductible donations with the goal of increasing the annual scholarships. Make your check payable to 'ASCE Hawaii Section' and include the note 'Walter Lum Scholarship Fund' and mail to: ASCE Hawaii Section, P.O. Box 917, Honolulu, HI 96808-0917. If you have any questions, please contact Sheila Uyeoka at suyeoka@ascehawaii.org.

ASCE GOLF TOURNAMENT

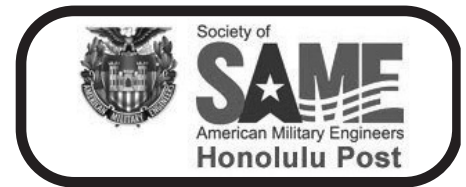
Save the date for this year's tournament, currently planned to be on Friday, Aug 5, 2022.

ASCE JOB LISTINGS

The following job listings are currently posted on the ASCE Hawaii Section website:

- **AECOM** (Civil Engineer II)
- **Bowers & Kubota** (Civil Designer III, Civil Engineer, Project Engineer, Project Manager, Senior Project Manager)
- **Brown and Caldwell** (Senior Staff Engineer)

- **City and County of Honolulu** (Civil Engineer III, IV, V, Civil Engineer V (Geotechnical), & Electrical Engineer V)
 - **Gray Hong Nojima & Associates, Inc.** (Junior Civil Engineer)
 - **G70** (Civil Designer, Civil Engineer, Civil Project Manager, Construction Manager)
 - **HDR** (Hawaii/Pacific Transportation Business Group Manager, Senior Civil Engineer, Project Manager, Civil Project Engineer)
 - **Hawaii Housing Finance and Development Corporation** (Section Chief)
 - **Kennedy/Jenks Consultants** (Project Manager, Honolulu Staff Engineer, Hawaii Staff Engineer)
 - **Nagamine Okawa Engineers Inc.** (Structural Engineer)
 - **R.M. Towill Corporation** (Assistant Engineer I, Assistant Engineer II, Civil Design Engineer, Design Visualizer 3D Modeler)
 - **SSFm** (Civil Engineer V, Structural Engineer IV)
 - **Stantec** (Account Manager/Engineer-Water)
- For further information, please visit <http://www.ascehawaii.org/job-listings.html>



P.O. Box 31218, Honolulu, HI 96817
 Web page: www.samehonolulu.org

SAME Honolulu Officers and Directors

President	CAPT Al Hutchison, U.S. Pacific Fleet Leighton Wong, PE
VP/Programs	
VP/Sustaining Members	Will Boudra, USN (Ret)
VP/Membership	Wesley Ishizu
Secretary	Jeff Clark
Treasurer/Investments	Andre Lee
Advisor at Lge, Air Force	John Lohr, Col. USAF (Ret)
Advisor at Lge, Army	MAJ James Wasson, USA
Advisor at Lge, Coast Guard	LCDR Kyle Ensley, USCG
Advisor at Lge, Navy	LCDR Mike Yoshihara

Professional Directory

<p>Tim Waite, P.E. Sr. Territory Manager Mobile: 808-479-1216 Email: twaites@strongtie.com Simpson Strong-Tie Co., Inc.</p>	<p>SSFm INTERNATIONAL www.ssfm.com</p>	<p>WPT WALTER P. THOMPSON, INC. SURVEYING & MAPPING 720 IWILEI ROAD SUITE 425 P.O. BOX 3351 HONOLULU, HI 96801 PHONE: (808) 536-2705 FAX: (808) 599-4032</p>	<p>R. M. TOWILL CORPORATION SINCE 1930 Civil Engineering Wastewater Engineering Surveying & Mapping Planning Construction Management Project Management</p>
<p>JUNO & ASSOCIATES CONSTRUCTION COST CONSULTANTS 1210 Ward Avenue, Suite 204 Honolulu, Hawaii 96814 Phone: (808) 947-6855 info@j-uno-associates.com</p>	<p>WALKER INDUSTRIES, LTD. Precast Concrete Products CONSPAN BRIDGE SYSTEMS Michael Villanueva P.O. Box 1568 Kahului, Hawaii 96733 Phone (808) 877-3430 Fax (808) 871-7282</p>	<p>WILSON OKAMOTO CORPORATION INNOVATORS · PLANNERS · ENGINEERS www.wilsonokamoto.com</p>	<p>WJE 808.591.2728 www.wje.com Engineers Architects Materials Scientists Serving Hawaii and the Pacific Since 1979</p>
<p>YOUR AD COULD APPEAR HERE FOR \$235 A YEAR</p>	<p>wsp Question the ordinary Imagine the extraordinary Create the enduring honolulu@wsp.com www.wsp.com/usa 808-536-1737</p>	<p>YKE YOGI KWONG ENGINEERS ALWAYS DRIVING FORWARD Geotechnical & Trenchless Engineering Construction Management Laboratory Testing</p>	<p>YOUR AD COULD APPEAR HERE FOR \$235 A YEAR</p>

HAWAII COUNCIL OF
ENGINEERING SOCIETIES
P.O. Box 2873
Honolulu, Hawaii 96802

RETURN SERVICE REQUESTED

Professional Directory

 <p>1001 Bishop Street, Suite 1600 Honolulu, HI 96813 tel: 808.521.3051 www.aecom.com</p>	 <p>Civil Traffic Environmental Surveying Branch Offices in Wailuku, Maui and Hilo, Hawaii www.atahawaii.com</p>	 <p>• Project Management • Planning • • Architectural/Engineering Design • Construction Management • 94-408 Akoki Street, Suite 201-A • Waipahu, Hawaii 96797 Phone: 808.836.7787 • Telefax: 808.834.4833</p>	<p>YOUR AD COULD APPEAR HERE FOR \$235 A YEAR</p>
 <p>Maui – Honolulu brownandcaldwell.com</p>	 <p>www.coffman.com</p>	 <p>Oahu: 615 Piikoi Street, Suite 700 Honolulu, Hawaii 96814 Ph: (808) 591-2022, Fax: (808) 591-8333 Email: surveying@cpshawaii.net Maui: 1129 Lower Main Street, Suite 102 Wailuku, Hawaii 96793 Ph: (808) 242-9641 Email: cpsmaui@cpshawaii.net</p>	 <p>Building Value Through Expertise Cost + Project Management 808-947-4525 ccorpusa.com</p>
<p>Y. Ebisu & Associates Acoustical and Electronic Engineers 1126 12th Avenue, Room 305 Honolulu, Hawaii 96816 (808) 735-1634</p>	 <p>1150 South King Street, Suite 700 • Honolulu, Hawaii 96814 Phone: (808) 591-8820 • Fax (808) 591-9010 Email: eci@echawaii.com</p>	 <p>1320 N SCHOOL ST., STE 1 HONOLULU, HAWAII 96817 Phone: 591-8116 ENGINEERS-SURVEYORS HAWAII, INC. (FORMERLY WILLIAM HEE & ASSOCIATES, INC.)</p>	 <p>GEOTECHNICAL ENVIRONMENTAL HYDROGEOLOGICAL CONSULTANTS (808) 484-5366 www.masafujioka.com</p>
 <p>FUKUNAGA & ASSOCIATES, INC. CONSULTING ENGINEERS WWW.FUKUNAGAENGINEERS.COM CELEBRATING OUR 50TH ANNIVERSARY</p>	 <p>GEOLABS, INC. Geotechnical Engineering and Drilling Services 2006 Kalihi Street Honolulu, Hawaii 96819 Phone: 841-5064 Fax: 847-1749</p>	<p>Gray • Hong • Nojima & Associates, Inc. CONSULTING ENGINEERS 201 Merchant Street, Suite 1900 Honolulu, Hawaii 96813 Telephone: (808) 521-0306 Fax: (808) 531-8018 email@grayhongnojima.com www.grayhongnojima.com</p>	 <p>7 Wilcrest Plaza 505 Ala Moana Boulevard, Suite 240 Honolulu, HI 96813 808.587.7747 janice.marsters@hartcrowser.com www.hartcrowser.com</p>
 <p>HAWTHORNE CAT 94-025 Farrington Hwy. Waipahu, Hawaii 96797 808/676-0205 Hawthorne Power Systems</p>	 <p>ROCK SOLID SINCE 1908 www.hcdhawaii.com • sales@hcdhawaii.com</p>	 <p>Honolulu 808.697.6200 Wailuku 808.359.2518 Hilo 808.202.6528 hdrinc.com</p>	 <p>HIDA, OKAMOTO & ASSOCIATES, INC. CONSULTING CIVIL ENGINEERS PACIFIC GUARDIAN TOWER 1440 KAPIOLANI BOULEVARD, SUITE 1120 HONOLULU, HAWAII 96814 PHONE: (808) 942-0066 FAX: (808) 947-7546</p>
 <p>Hirata & Associates, Inc. Geotechnical Engineering 808.486.0787 www.hirata-hawaii.com</p>	 <p>SAM O. HIROTA, INC. Engineers & Surveyors 864 S. Beretania Street Honolulu, Hawaii 96813 Telephone: 537-9971</p>	 <p>CAD/CAE Service For: Manufacturing Product Testing Failure Analysis Researching info@honosimu.com</p>	 <p>ISLAND GEOTECHNICAL ENGINEERING, INC. Geotechnical Consultants 330 Ohukai Road, Suite 119 Kihei, Hawaii 96753 Phone: (808) 875-7355 Fax: (808) 875-7122 Email: ige@igehawaii.com</p>
 <p>KAI HAWAII STRUCTURAL & FORENSIC ENGINEERS 50 S. Beretania Street, #C-119C • Honolulu, HI 96813</p>	<p>Kennedy/Jenks Consultants Engineers & Scientists The BLOCK Honolulu 707 Richards Street Suite 528 Honolulu Hawaii 96813 P: 808.218.6030 F: 808.488.3776 Direct: 808.218.6042</p>	 <p>1622 Kanakani Street • Honolulu, Hawaii 96817 (808) 598-7790 • ticghawaii.com</p>	 <p>MCE INTERNATIONAL MECHANICAL CONSULTING ENGINEERS 1360 S. Beretania Street, Suite 400, Honolulu, HI 96814 Phone: (808) 941-0955 Fax: (808) 550-8167 E-mail: mceintl@mceinternational.com Website: www.mceinternational.com</p>
<p>Creative People. Practical Solutions.® mn moftatt & nichol Marine & Transportation Planners and Engineers 808.533.7000 www.moftattnichol.com</p>	<p>NAGAMINE OKAWA ENGINEERS INC. CONSULTING STRUCTURAL ENGINEERS 1003 Bishop Street • Suite 2025 Honolulu, Hawaii 96813 Phone: (808) 536-2626 • FAX: (808) 536-3926</p>	 <p>www.oceanit.com</p>	 <p>Okahara and Associates, Inc. ENGINEERS AND LANDSCAPE ARCHITECTS Civil - Mechanical Engineers Hilo: (808) 961-5527 • hilo@okahara.com Oahu: (808) 524-1224 • oahu@okahara.com www.okahara.com Small Business</p>
 <p>Pacific Geotechnical Engineers, Inc. Soils & Foundation Engineering Consultants 94-417 Akoki Street Waipahu, Hawaii 96797 (808) 678-8024 FAX (808) 678-8722 E-mail: pge@pacificgeotechnical.com</p>	 <p>SUITE 1500, PACIFIC PARK PLAZA 711 KAPIOLANI BOULEVARD HONOLULU, HAWAII 96813 TELEPHONE: (808) 593-1676 FAX: (808) 593-1607 EMAIL: paren@pareninc.com dba park engineering Engineers, Surveyors, Planners</p>	 <p>Consulting Civil Engineers since 1969 2046 So. King Street Honolulu, Hawaii 96826 Phone: 808-955-4441 mailto:box@satoandassociates.com</p>	 <p>Civil, Environmental & Structural Engineers 1126 12th Avenue, #309 Honolulu, Hawaii 96816-3715 Phone: (808) 737-1875 Fax: (808) 734-5516 Email: seyeng@seyeng.com</p>