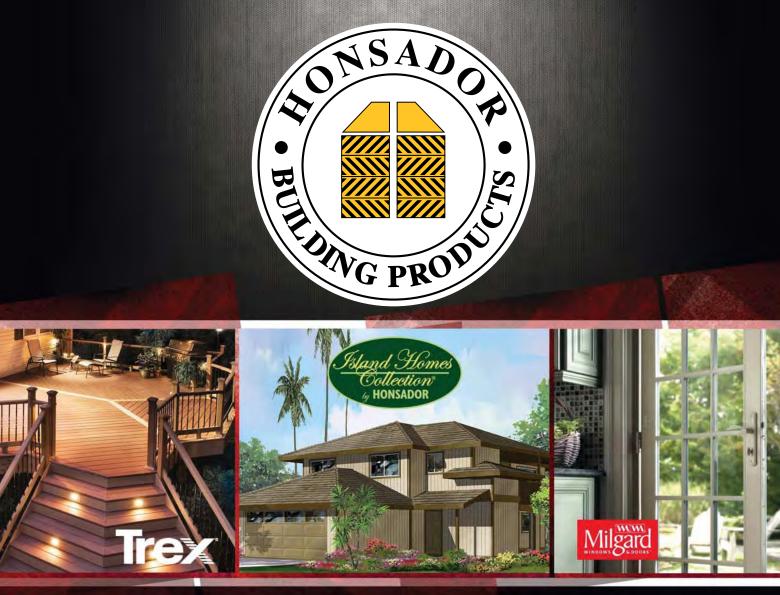
APRIL 2016/\$4.95

A CON-MARKANIA A CON-MARKANIA

GCA's new president Clay Asato says the industry can continue to thrive, with a shift in focus

> ALSO: DEMOLITION & RECYCLING SOLAR ENERGY BUILDING GREEN ELECTRICAL TRENDS



Honsador Lumber has experienced professionals and provides the best service in the industry.

Call us today for a consultation. Oahu 808.682.2011

Hilo 808.961.6000 • Kona 808.329.0738 Kauai 808.246.2412 • Maui 808.877.5045





Maximize space with flatbed service.

25% more cube than a 45' flat rack. 40% more cube than a 40' flat rack.



When it comes to transporting building supplies, Pasha Hawaii's flatbed service provides easier loading, greater capacity, and direct delivery with less handling, less damage, and less downtime at the job site. Fully enclosed decks on our roll-on/roll-off vessels ensure your cargo arrives in pristine condition.

For more information or to request a quote, email OHW@pashahawaii.com.

PASHA HAWAII

mmm pashahawaii.com

PASHA HAWAII° pashahawaii.com

COFFEE BREAK



he General Contractors Association of Hawaii, led by 2016 President Clay Asato of Koga Engineering, continues to work to support GCA members with industry-related education to legislative issues.

And Johnny Higa, the GCA's executive vice president, says the organization's punchlist includes promoting construction activities, maintaining a

skilled workforce and supporting careers in the building industry. In this issue, Assistant Editor Brett Alexander-Estes interviews the GCA's leaders on their plans to equip members to meet the challenges ahead.

Tetris video game distributor Henk Rogers wants to help people get off the power grid and his new enterprise, Blue Ion, is touting its energy storage packages as a solution. "The world needs to get to 100 percent renewables a lot faster," he tells Associate Editor Priscilla Pérez Billig.

The demolition and recycling business has seen its ups and downs recently, with the price of scrap metals dropping drastically over the

past few years. But the value of some metals are starting to climb back up, an industry leader says

in our report. These days, lighting is as much about the overall effect of a fixture as it is about what the fixture itself looks like, according to specialists who offer three popular residential lighting trends in Hawaii.

We also take a look at building green and give an update on the continuing demand for solar energy in the Islands.

A hui hou,

david@tradepublishing.com



Henk Rogers PHOTO BY GREG YAMAMOTO





EDITOR David Putnam ASSOCIATE EDITOR Priscilla Pérez Billig ASSISTANT EDITOR **Brett Alexander-Estes** CONSTRUCTION EDITOR Alfonso Rivera DIRECTOR OF ADVERTISING Barry Redmayne ADVERTISING MANAGER Charlene Gray SENIOR ACCOUNT EXECUTIVE Jennifer Dorman ADVERTISING ACCOUNT EXECUTIVES Sara Elsea-Schell, Richard De Gutis ADVERTISING ADMINISTRATOR Lorraine Cabanero CONTROLLER Tracy Kalahiki COMMERCIAL SERVICES DIRECTOR Piilani Kaalekahi COMMERCIAL PRINT MANAGER Chanel Hirata CREATIVE DIRECTOR Davin lyamatsu ART DIRECTOR Ursula A. Silva SENIOR DESIGNERS Kim Martin, Daniel Pereira CIRCULATION MANAGER Chelse Takahashi PRODUCTION SUPERINTENDENT Abe Popa SENIOR PRESS OPERATORS Bill Yiulin, Dean Onishi POST PRESS MANAGER Chris Castelli DISTRIBUTION SUPERVISOR Christine Aikau

> Carl Hebenstreit CHAIRMAN & PRESIDENT

Ken Berry CEO & PUBLISHER

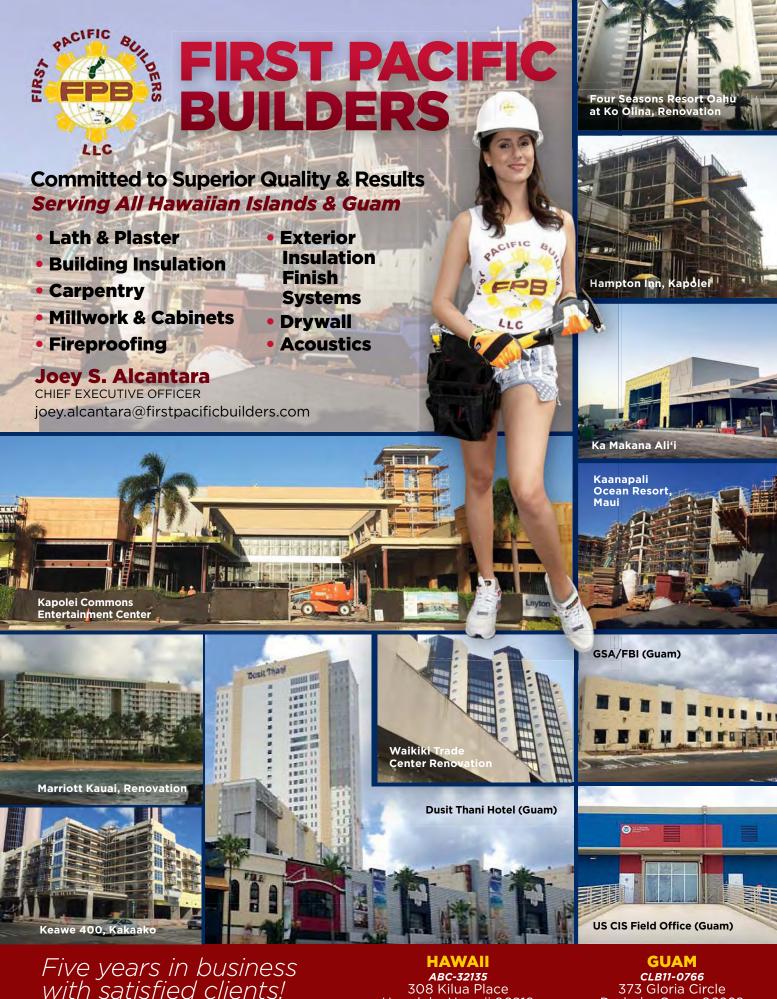
Barry Redmayne ASSOCIATE PUBLISHER

Karen Berry ASSOCIATE PUBLISHER



Building Industry Hawaii, published monthly as Building Industry Hawaii@ 2016. Trade Publishing Co. Single copy: \$4. Subscriptions available at \$25 per year. For more information about subscriptions, advertising or editorial contributions call (808) 848-0711; fax: (808) 841-3053. Statements of fact and opinion made in stories, columns or letters submitted by freelance writers and other contributors are the responsibility of the authors alone and do not necessarily reflect the opinion of Trade Publishing Co. Materials within this publication are not to be construed as professional advice; Trade Publishing disclaims any and all responsibility/liability for health or financial damages arising from its content.





FirstPacificBuilders.com

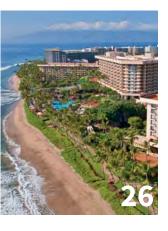
Honolulu, Hawaii 96819 (808) 738-4988

Dededo, Guam 96929 (671) 969-1808

CONTENTS APRIL 2016 VOL. 62 NUMBER 4







Features

- **18** Man On a Mission Henk Rogers looks to a brighter future for renewable energy
- 26 The Greening of Hawaii Energy expoerts seek ways to take the sting out of energy costs
- **34** Demo & Recycling Island firms tighten belts against market value of metals
- **40** A Strong and Steady Hand Clay Asato embraces role as 2016 president of the GCA of Hawaii
- **46 'One Unified Voice'** GCA of Hawaii leader says group's 2016 initiatives work for industry as a whole
- **48** Building a 'Total Health Environment'
 - Collaboration: Three firms join forces to deliver Kauai's first Kaiser Permanente clinic
- 53 Construction and the Law Holding On to Sub-Bids
- **54** A Peek at Hawaii's New ConRACs Rental hubs at Honolulu and Kahului airports are expected to streamline airport traffic
- 60 Bright Trends for Bright Spaces Clients insist on lighting for visual effects along with energy efficiency and cost savings



News Beat

- **65** ASSE Hawaii to Host Safety Conference
- 65 Disability Access Confab Set May 3
- 66 RMA Sales Takes BIA Stew Title
- 66 G70 Opens Jakarta Office
- **67** Work Begins on West Loch Rail Station
- **67** Tsubaki Tower Construction Begins



COMING IN MAY

Building Industry Hawaii salutes our Armed Forces with a Military Appreciation feature and insights in Residential Construction and Trucking and Hauling. We also have reports on Concrete Repair and an update on the Rail.



Departments

- 4 Coffee Break
- 8 Datebook
- **12** Contracts Awarded/Low Bids
- Spotlight on Success: HPU Waterfront Lofts – Aloha Tower
- **32** Concept to Completion: Four Seasons Resort Lanai
- 69 News Makers
- 70 New Products
 - 72 Faces: ABC Dinner
 - 74 Faces: BIA Stew Challenge
 - 76 Faces: HCES Banquet
 - 78 Best Practices

On the Cover

Clay Asato of Koga Engineering and the 2016 GCA of Hawaii president Design by Ursula A. Silva Photo by Greg Yamamoto

PROJECT TRANSPORT

It's as good as there! We Are Your Mid-Pacific **Shipping Experts**









Project Transport

is your specialist for shipping all of your construction equipment and materials between the U.S. Mainland and Hawaii. We provide turn-key solutions for all types of shipments, from single cartons to the most ambitious, demanding project shipments.

> **Call us today** for a quote!

Less Than Container & Full Container Loads • Break-Bulk & Oversized Cargo • Professional Export Packing & Crating Flatracks and Specialized Equipment Roll-On, Roll-Off

Competitive Rates, Superior Service

 Crane / Heavy Lift Service Vessel Charters

Expert Project Logistics Management Complete, Door-To-Jobsite Service

HAWAII • GUAM • PACIFIC ISLANDS • ALASKA

Phone: (626) 303-4500 • Fax: (626) 303-4550 Email: Quote@Project-Transport.us • Web: www.Project-Transport.us

DATEBOOK ____ Upcoming Classes, Events & More _

If you'd like your organization's event to be considered for Datebook, contact brett@tradepublishing.com a minimum of two months prior to your event.

APRIL 1 (FRIDAYS THROUGH JUNE)

Fall 2016/Spring 2017 School Year Orientation

The Associated Builders and Contractors (ABC) of Hawaii's fall '16 and spring '17 mandatory school year orientations for ABC programs in carpentry, electrical, painting and plumbing are held every Friday from through June 24.

9 a.m. (Fridays, as scheduled). To schedule an orientation, call the ABC Hawaii office at 845-4887 or sign up online at abchawaii.org.

APRIL 1

(BOC) Level 2 Application Deadline

April 1 is the deadline to apply to the UH Maui College Sustainable Living Institute's Building Operator Certificate (BOC) Level 2—"Energy Efficiency for Commercial Buildings"—seven-day certification course. Topics include how to measure and benchmark energy performance, maintain efficient HVAC and lighting systems and more. Three years of experience and academic or training credentials required.

Classes begin April 14. For more information and to download an application, go to sustainablemaui. org or call (808) 984-3502. Tuition: \$1,600; \$200 for those who qualify for Hawaii Energy's tuition subsidy.

APRIL 1, 2, 16

Architectural Photography: An Exploration of Form (Parts 1, 2, 3)

The American Association of Architects (AIA) Honolulu Chapter presents three-part instruction and critique by T. E. Garduque and photographers Douglas and Brad Peebles. AIA/CES LUs available. Refreshments included.

5-7:30 p.m. (April 1); 8 a.m.-2 p.m. (April 2, 16). Center for Architecture, 828 Fort Street Mall, Suite 100. RSVP at aiahonolulu.org by April 1. Contact Kristin Nakagawa at knakagawa@ inhabit-arch.com for more information. Fee (covers three classes): AIA members \$65; nonmembers \$95; students \$50.

APRIL 4, 5, 6, 7

OSHA 500 – Trainer Course

"OSHA 500 - Trainer Course in Occupational Safety & Health Standards for the Construction Industry" by the Building Industry Association of Hawaii (BIA-Hawaii) and UC-San Diego's **OSHA** Training Institute Education Center prepares students to teach the 10- and 30-hour Outreach classes. Registration requires thorough knowledge of OSHA CFR 1926 as well as a Verification of Prerequisite Form listing OSHA 510 documentation and other industry or academic credentials. Students become authorized OSHA Trainers after successfully passing written exam. Laptop recommended. No online class enrollment.

8 a.m.-4:30 p.m. (daily). CTC Pacific, 94-487 Akoki St., Waipahu. For registration and more information, go to biahawaii.org or oshatraining@ ucsd.edu or call 800-358-9206. Fee: \$750. Includes instructional materials. No refunds after March 21.

APRIL 6

Hawaii Public Radio Pledge Drive: 3-6 p.m. Shift

For the eighth year, volunteers and AIA's Honolulu Chapter is helping Hawaii Public Radio with its spring phone-a-thon. During AIA's shift, architects lead the charge by answering phones, taking pledges and raising money for Hawaii's community radio station.

Go to aiahonolulu.org for steps to make a donation. For more information, contact Camilla Nicholas at camilla@aiahonolulu.org.

APRIL 6, 7

NAHB Universal Design/Build

Offered by BIA-Hawaii. National Association of Home Builders specialist and contractor Curt Kiriu shows builders how to expand their target markets by applying universal design principles that accommodate all users. Class meets many design and building industry continuing education requirements. Includes continental breakfast and lunch.

8 a.m.-5 p.m. (daily). CTC-Pacific, 94-487 Akoki St., Waipahu. Online registration at biahawaii.org until April 6. For more information, contact Barbara Nishikawa at 629-7505 or BLN@biahawaii.org. Fee: BIA-Hawaii members \$375; nonmembers \$450; \$225 with available ETF funding.

APRIL 7, 16

Sketch-in Celebration of Architecture Month!

AIA Honolulu Chapter hosts two informal sketch-a-thons. Bring your art materials of choice, meet, sketch and socialize with your pictorially inclined peers.

6-8 p.m. (April 7, King Kalakaua Building courtyard, 335 Merchant St.); 3-5 p.m. (April 16, Center for Architecture, 828 Fort Street Mall). For more information, go to aiahonolulu. org or contact Mayumi Hara, AIA, at mayu@jhara.com for more information.

APRIL 9

Architecture Month: Walking Tour of Historic Waikiki

Celebrate AIA Honolulu Chapter's 10th annual Architecture Month with a tour of Waikiki's landmarks guided by AIA architects and design-minded volunteers. Reservations and payment required. Meeting point and staggered tour schedules to be announced.

8 a.m.-noon. Online reservations and pre-payment required at aiahonolulu.org beginning March 1. For more information, go to aiahonolulu.org. or contact Camilla Nicholas at camilla@ aiahonolulu.org. Fee: \$15 per person.

APRIL 9, 16

"Risk Management and Problem Solving" (STP Unit 6)

The General Contractors Association of Hawaii (GCA of Hawaii) and the Associated General Contractors of America present the Supervisory Training Program (STP), designed and field-tested for contractors to help them effectively manage people, time, equipment and materials. Unit 6-"Risk Management and Problem Solving" (2015 edition)-is the sixth in STP's six-course program. Instructor Joaquin Diaz, Hawaiian Dredging Construction Co. Inc. safety and environmental director, covers effective site safety management, security and protection, construction risk

JULY 29 'Early Bird' Trade Expo Deadline

July 29 is the "early bird" deadline for exhibit space at the 17th annual Pacific Building Trade Expo to be held Oct. 25 at the Hawaii Convention Center.

Hawaii's leading building industry trade show, presented by Honblue and produced by the Honolulu chapters of the American Institute of Architects and the Construction Specifications Institute, showcases products and services from more than 300 vendors as well as two dozen continuing≠≠ education seminars.

To register for exhibit space or sponsorships, contact Barbie Rosario at barbie@pacificbuildingtradeexpo.com. To present a seminar, contact Reid Mizue at 721-4267 or reid@omizuarch.com. For more Expo information, go to pbtexpo.com.

management, record keeping and more. Certificate available after completion of course. Includes manual and lunch.

7:30 a.m.-3:30 p.m. (daily). GCA Conference Room, 1065 Ahua St. RSVP by March 23. Limited seating; first-come, first-served. To register and for more information, go to info@gcahawaii.org or gcahawaii.org., or call 833-1681. Fee: GCA members \$295; nonmembers \$395. No refund after March 23.

APRIL 12, 14

ACI Concrete Field Technician Grade I Review

The Cement & Concrete Products Industry of Hawaii (CCPI) reviews the American Concrete Institute's (ACI) written and performance exam for ACI Field Testing Technician Grade 1 certification. Exam held April 30 at Hawaiian Cement Halawa.

For more information, contact CCPI at 848-7100 or via wkawano@ ccpihawaii.org.

APRIL 12, 14, 16, 19, 21

40-Hour Safety Hazard Awareness Training

Offered through BIA-Hawaii. Designed specifically for the Site Safety & Health Officer (SSHO), this course provides the training for additional required certification as stated in the NAVFAC UFGS 1.6.1.1.1. Industry prerequisites required. Certification provided after successful testing.

7:30 a.m.-4:30 p.m. (daily). CTC-Pacific, 94-487 Akoki St., Waipahu. Online registration at biahawaii.org until April 12. For more information, contact Barbara Nishikawa at 629-7505. Fee includes EM-385 Manual. Fee: BIA-Hawaii members \$350; nonmembers \$475; \$237.50 with available ETF funding.

APRIL 13

Identifying Trouble Areas in Residential Buildings & Permitting

Offered by BIA-Hawaii. Ideal for both seasoned and novice realtors, this workshop is taught by a licensed general contractor and covers topics including types of builders, basic building construction, ADUs, permitting basics and more. Counts for four DCCA 2015-2016 biennium continuing education requirements.

9 a.m.-1:30 p.m. Honolulu Board of Realtors, 1136 12th Ave., Holomua Room. Online registration until April 13. Contact Barbara Nishikawa at 629-7505 or BLN@biahawaii.org for information and registration. Fee: BIA members: \$85; nonmembers: \$100; \$50 through available ETF funding.

APRIL 13

BIA Networking Night

At BIA-Hawaii's Networking Night hosted by RevoluSun, you'll get the latest industry buzz, enjoy ono snacks and network with peers.

5:30-7:30 p.m. RevoluSun Showroom, 210 Ward Ave., Suite 140. For online registration and more information, go to biahawaii.org or contact Cathleen Langin at 629-7507 or CNL@biahawaii.org. Free for BIA-Hawaii members and invited guest.

APRIL 13, 20

Communication Class Level I

The AIA Honolulu Chapter hosts Presentation Course Level 1, Pam Chambers' Wednesday evening public speaking course that also features small group practice.

6-8:30 p.m., Wednesdays. Center for Architecture, 828 Fort Street Mall, Suite 100. For more information contact Pam Chambers at 377-5679 or SpeakOut@pamchambers.com.

APRIL 14, 21, 29

Architecture Month Film Night: Hawaii Island Section

AIA Hawaii Island Section presents three double-feature screenings in three different Big Island locations of iconic design films by Alejandro Aravena and Olmsted. Free.

Go to aiahonolulu.org for screening times and locations.

APRIL 15

RUDC Committee Meeting

The AIA Honolulu Chapter holds its Regional and Urban Design Committee (RUDC) monthly meeting to review and discuss AIA positions on various urban design issues. The meeting is open to all AIA Honolulu members. Agenda to be announced; bring your own lunch.

Noon-1 p.m. Center for Architecture, 828 Fort Street Mall, Suite 100. AIA members only. Register/RSVP online at aiahonolulu.org until April 15. Contact Scott Wilson at scottrw51@gmail.com.

APRIL 19, 20, 21

Construction Quality Management (CQM) for Contractors

GCA of Hawaii hosts this three-day CQM course, a joint training program provided by the U.S. Army Corps of Engineers, Honolulu Engineer District and the Naval Facilities Engineering Command, Pacific Division. This training is a mandatory certification requirement for all appointed contractor quality control system managers (CQCSM) and is valid for five years. First priority to GCs sending job award letter with registration. Limited to two employees per company.

Noon-4 p.m. daily. GCA, 1065 Ahua St. To register and for more information, go to gcahawaii.org or call 833-1681. Fee: GCA members \$95; nonmembers \$125. No refunds for noshows and cancellations received after April 15.

APRIL 21

Save the Date! AIA Monthly Membership Meeting

The AIA Honolulu Chapter's popular monthly General Membership Meeting returns with seminars, educational credits and fellowship. Agenda to be announced. Lunch provided.

11 a.m.-1:30 p.m. Center for Architecture, 828 Fort Street Mall, Suite 100. Advanced registration and payment required at aiahonolulu. org; available until April 21. Limited seating; first-come, first-served. For more information, contact Camilla Nicholas at camilla@aiahonolulu. org or 628-7245. Fee: AIA Honolulu members \$20; nonmembers \$35.

APRIL 21

NAWIC General Membership Meeting

The National Association of Women in Construction (NAWIC) hosts its monthly dinner and membership meeting. Get to know other women in the industry, build partnerships and increase your knowledge.

5:30 p.m. (networking); 6 p.m. (dinner and meeting). Honolulu Country Club, 1690 Ala Puumalu St. For more information, go to nawic114@yahoo.com or Honolulunawic.org. Dinner fee \$35.

APRIL 23

2016 Build Hawaii Awards Banquet

GCA of Hawaii's 2016 Build Hawaii Awards ceremony recognizes and celebrates the best of the best in 2015 Island construction at GCA's Awards Banquet on April 23 at the Modern Honolulu.

5 p.m. (no-host cocktails); 6 p.m. (dinner and awards ceremony). Business suits; cocktail dresses. The Modern Honolulu, 1775 Ala Moana Blvd. RSVP by April 8. To RSVP/register, contact the GCA at 833-1681(phone), 839-4167 (fax) or via gladys@gcahawaii. org. Sponsorships available at www. gcahawaii.org. Fee: \$110 per person.

APRIL 23

Seminar: Building Your Home for Life

Residential design and construction firm Graham Builders guides homeowners on home additions and renovations from start to finish: where to begin, how to select a builder, potential problems, as well as requirements for residential design, setting a budget, estimating, financing and scheduling, going green and more. Seminar is free and open to the public.

9-11 a.m. Honolulu Country Club, 1690 Puumalu St. Registration required. Limited seating. Call 593-2808 or go to grahambuilders.com.

APRIL 27

Public Film Night at Center for Architecture: Urbanized

The AIA Honolulu Chapter presents the third part of Gary Hustwit's design film trilogy exploring urban design issues. Panel discussion to follow.

6 p.m. (doors open); 6:30 p.m. (film begins). Center for Architecture, 828 Fort Street Mall, Suite 100. For more information, go to aiahonolulu. org or contact Camilla Nicholas at camilla@aiahonolulu.org or 628-7245. Free.

APRIL 27

SBA Resource Day-Pearl City

Meet one-on-one with your Small Business Administration (SBA) representative and learn the programs and resources available, including loans for working capital, long-term financing to purchase or renovate business real estate or major equipment, government contracting certifications and assistance and more. An SBA specialist will be available for a 30-minute confidential consultation. Appointments required.

9 a.m.-3 p.m. (by appointment). Central Pacific Bank - Pearl City, 1030 Makolu St., Pearl City. For more information and registration, contact Mary Dale at 541-2990 x211 or via mary.dale@sba.gov.

APRIL 28, 29

Architecture Month! Free Downtown Honolulu Architecture Firm Crawl

The AIA Honolulu Chapter

sponsors an evening of on-site education at downtown Honolulu AIA companies. Print out a map of participants from AIA's website, hop from firm to firm, and learn about outstanding projects and professionals.

5-8 p.m. Various Honolulu AIA firms. Download map at aiahonolulu.org. as event approaches. No online registration. To register and for more information, contact Camilla Nicholas at 628-7245 or camilla@aiahonolulu.org.

APRIL 30

Increase Your Productivity with Google Apps

BIA-Hawaii's workshop featuring Danilo Marrone, Google Certified Trainer, shows how to increase workplace productivity using embedded Google Gmail apps. Learn how Chrome, Gmail and Google Sites improve voice search, shortcuts, inboxes, customizing, websites and more. Participants must bring their own laptop. Includes continental breakfast.

9 a.m.-noon. CTC-Pacific, 94-487 Akoki St., Waipahu. Online registration at biahawaii.org until April 30. Contact Barbara Nishikawa at 629-7505 or BLN@biahawaii.org for information and registration. Fee: BIA members \$150; nonmembers \$200; \$100 through available ETF funding.

APRIL 30

Violence in the Workplace Awareness and Communication Workshop

GCA of Hawaii presents a workshop designed to replace confrontation with communication. Jerry Trinidad, Honolulu Police Dept. veteran and certified mediator, conducts instruction and practice in effective communication and joint problem solving.

7-11 a.m. GCA Contractors Association, 1065 Ahua St. Register/ RSVP at gcahawaii.org until April 15. Limited seating; first-come, firstserved. For more information, go to gcahawaii.org or call 833-1681. Fee: GCA members \$95; nonmembers \$150. No refunds for no-shows and cancellations received after April 24. Substitutions available.



This conference will have over 75 exhibitors and 50 speakers from across the world presenting tools and information that will enhance workplace safety.

Single day registration fee: \$225.00 Three day registration fee: \$425.00 Exhibits open to all daily 12:30-4:00





Keynote Presenter: Richard Hawk "Create a Vibrant Safety Culture"



Carl Heinlein, CSP: Change-Emerging/Ongoing OHS Issues in the Construction Industry

Adele L. Abrams, Esq., CMSP OSHA's General Duty Clause: Gap Filler or "Gotcha"

Additional Topics

Changing the Game (NFL Officials discuss Risk Management) Promoting a Sustainable Lean Safety Culture Navigating Hawaii's Worker's Compensation Law Promoting the Value of Safety Through Sustainability and Social Responsibility **3M**—Respirator Selection **Fall Protection Training** ASP & CSP Updates The New Fleet Safety Supervisor, Now What Do I Do HAWAIIAN Post Conference OHST Workshop NONDON Advanced Lab Safety See website for additional topics



Scan QR code to register http://www.cvent.com/d/9rqtys Ph: (808) 478-3257





HAWAIIAN DREDGING

UC San Diego Extension

OSHA TRAINING INSTITUTE





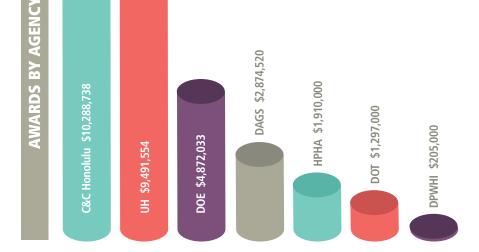


GUARDIAN

Contracts Lowest Since '12

Government agencies have awarded a total of \$137,148,077 in contracts so far in 2016—a notable decline from the \$162,208,301 in agency bids for the first two months of last year. Additionally, February's total of \$30,938,845 was a major dip from the \$98,877,318 awarded the same month of 2015—and was the lowest February since 2012's awards of \$21,217,983.

The bulk of the month's contracts was for work on Oahu, with \$22,619,992 for various projects. The City & County of Honolulu was the leading agency, with \$10,288,738 in jobs, followed by the University of



FEBRUARY (Awards are rounded up to the nearest dollar.)

Oahu_

Isemoto Contracting Co. Ltd......2,797,800 Kapiolani Street Sidewalk and Various Pedestrian Safety Improvements, University of Hawaii at Hilo

C&C Electrical Contractor Inc......1,973,951 Replace Electrical Transformers, Campus Wide, Leeward Community College, UH

Economy Plumbing & Sheetmetal Inc. dba Economy Plumbing & Air Conditioning......1,910,000

Improvements to Major Systems at Amp 34 & 35 Upgrade to Water Heaters, Heat Pumps, Booster Pumps

Paul's Electrical Contracting LLC1,427,700 Traffic Signals at Various Locations, Phase 15

FEBRUARY'S TOP 10 CONTRACTORS

1) Grace Pacific LLC (1)	\$8,861,038
2) Isemoto Contracting Co. Ltd. (2)	
3) F&H Construction (3)	2,398,000
4) C&C Electrical Contractor Inc. (1)	1,973,951
5) Economy Plumbing & Air Conditioning (1)	1,910,000
6) Color Dynamics Inc. (1)	
7) MJ Construction Co. (2)	
8) Paul's Electrical Contracting LLC (1)	
9) Hawaiian Dredging Construction Co. Inc. (1)	
10) Integrated Construction Inc. (2)	

Information is summarized from the Contractors Awarded section of *BIDService* Weekly, compiled by Research Editor Alfonso R. Rivera.

Hawaii at \$9,491,554.

Grace Pacific LLC landed the largest single award of \$8,861,038 for road rehabilitation on Oahu. Isemoto Contracting Co. Ltd. won two bids totaling \$6,014,000 for two projects at UH-Hilo.

Awards By A	
Oahu	\$22,619,992
Hawaii	4,366,773
Maui	
Total	\$30,938,845

Awards By Agency	
C&C Honolulu \$10	,288,738
UH9	,491,554
DOE 4	,872,033
DAGS 2	2,874,520
НРНА 1	,910,000
DOT 1	,297,000
DPWHI	. 205,000
Total\$30),938,845

Hawaiian Dredging Construction Co. Inc.

Substructure Repairs at Piers 52-53, Honolulu Harbor
MJ Construction Co
Brian's Contracting Inc
Integrated Construction Inc
Brett Hill Construction Inc
MJ Construction Co
Integrated Construction Inc
CC Engineering & Construction Inc311,300 Manana Elementary School, Miscellaneous R&M FY14
Constructors Hawaii Inc
Henry's Equipment Rental & Sales Inc

.1,297,000

Maui _

Color Dynamics Inc. 1,554,080 Hoapili Hale, Building Exterior Repairs and Improvements, Wailuku

F&H Construction......1,217,000 Baldwin High School, Miscellaneous R&M FY13

Hoapili Hale, Exhaust Monitoring and Ventilation System Repair and Improvements, Wailuku

Hawaii_

Site Engineering Inc	205,000
Kamakoa Nui Park, Perimeter Fence, Waikoloa	
MDS Construction LLC	45,000

Repaint Building, Bldg. 3378, Hawaii Community College, Hilo

LOW BIDS

The companies below submitted the low bids in February for the work detailed. Submitting the lowest bid is not a guarantee of being awarded the job. However, it is a strong indication of future work, and subcontractors can plan accordingly.

Oahu.

Rehabilitation of Localized Streets, Phase 14B, St. Louis Heights

Maryl Group Construction Inc......4,200,000 Various Buildings, Replace Plumbing Fixtures, Phase 2, UH-Manoa

Ralph S. Inouye Co. Ltd......2,058,700 Quarry Stairs, General Repairs Phase 2, UH-Manoa

C&C Electrical Contractor Inc. 1,886,190 Bilger Addition, Replace Electrical Service Equipment, UH-Manoa

Oahu Air Conditioning Service Inc...... 176,991 Wilson Elementary School, Bldg. E, Replace AC Units Surface Shield Roofing Co. 110,245 Campbell High School, Bldg. O, Recoat Roof

Triple D Painting Co......103,040 Kaala Elementary School, Bldg. E, Recoat Kitchen Floor

Tory's Roofing & Waterproofing Inc...... 81,950 Liholiho Elementary School, Building B Reroof

Central Pacific Specialty Contractor 49,283

Leeward Roofing & Gen. Contr. Co...... 29,950 Mililani Mauka Elementary School, Bldg. D, Repair Various Roof Areas and Leaks

Pacific Power Electrical

Island Pacific Installers LLC 20,980 Castle High School, Bldg. R, Replace Roll Up Doors

Maui

Paradise Roofing Corp......298,000 King Kekaulike High School, Miscellaneous R&M FY13

Certified Construction Inc...... 159,522 Haiku Elementary School, Miscellaneous R&M FY13

Hawaii

Elcco Inc. 1,004,835 Hualani Park Ball Fields, Lighting Improvements, Keaukaha

Kauai

SPOTLIGHT ON SUCCESS

SWINERTON BUILDERS

SCHOOL SPACES HAWAII PACIFIC UNIVERSITY WATERFRONT LOFTS - ALOHA TOWER

Iconic building houses college students on the second floor, with updated facilities on the ground floor for businesses

A t the site where passenger ships were met as they arrived in Honolulu, Hawaii Pacific University teamed up with general contractor Swinerton Builders for the construction of its redevelopment of the iconic Aloha Tower Marketplace.

The project, completed in the fall of 2015, involved major improvements to the building that was built in 1926 on the downtown Honolulu waterfront along Piers 8 and 9. The Waterfront



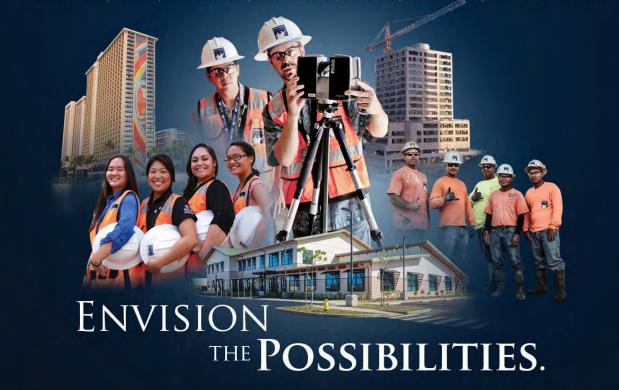


Lofts offer 84 living spaces for HPU students and faculty with an upgraded marketplace that houses a wide range of businesses.

"The HPU Waterfront Lofts at Aloha Tower was a great success on many fronts. We had a highly collaborative team of subcontractors and an outstanding partner with the Architect team at Group 70 International," says Kevin Smith, Swinerton Builders' project executive. "Together our main objective was to service our client (HPU) by working together to help them achieve their goals on a



HOSPITALITY | RETAIL | HEALTHCARE | RESIDENTIAL | FEDERAL | EDUCATION | RENEWABLE ENERGY



1003 BISHOP ST. SUITE 1340 HONOLULU, HI 96813 WWW.SWINERTON.COM T: 808.521.8408



SPOTLIGHT ON SUCCESS.

challenging project. This project exemplified our ability to really look after the best interest of our clients and ensure that they succeed when they work with us.

"The HPU Waterfront Lofts is a great vision for the University, and we are proud to have helped them envision their possibilities and make it a true success."

"Facing the challenges of preexisting and unknown conditions of the 160,000-square-foot property, the project faced the daunting task of converting warehouse, office and retail units into 84 apartment-style student lofts and campus space," according to Swinerton Builders. "A big part of its success was the implementation of BIM modeling and 3D laser scanning technology, which had a tremendous impact in field coordination and design throughout the entire course of the project."





On the ground floor, students can access HPU facilities including the Learning Commons, Faculty-Student Lounge and offices such as Welcome Center, Student Life, Waterfront Lofts Housing, Student Government

> Association and Campus Activities Board, according to the HPU website.

The second-floor lofts include single-, doubleand triple-occupancy bedroom options. The lofts have a living room, kitchenette, and bathroom; studios have a bathroom and mini-fridge.

The worksite was adjacent to the Department of Transportation, which posed a unique challenge that Swinerton says it resolved by advance planning and maintaining communications with the DOT "to prevent disruption to their day-to-day operations."

Swinerton also replaced the clay tiles on the roof which had become heavily weathered and leaked. The work included the demolition of the existing roof and installation of a similarly-colored Sanafil PVC energyefficient roof.

The existing steel handrails throughout the project did not meet updated code requirements, according to Swinerton, and were replaced with a specially designed aluminum panel that attached directly to the



Thank You Swinerton Builders for allowing us to be a part of your team!



rail. Precast curb was also installed to prevent students from stepping up on the curb to address what was considered a fall hazard.

Decorative fabric awnings that had faded and torn were upgraded with a product by Serge Ferrari that offers a longer warranty and product. Swinerton reports that the subcontractor used heat welding to ensure the longest life of the material at the seams and lacing flaps. Each of the 98 awnings were handmeasured and fitted.

According to Swinerton, "the project team took a hands-on approach in regards to supporting the field and the day-to-day operations of the office. Each engineer was given his or her scope responsibilities, but took it upon themselves to reach out and help their peer engineers when it was needed.

"This project served as the perfect opportunity to build and mold our younger leaders as the team was very young. With a common goal of helping our clients succeed, our team pushed onto the field toward our goal of completing the job on time and on budget, building camaraderie and trust among our subcontractors, the owner and the architect."

Students began moving into the Waterfront Lofts last August soon after the project was completed.



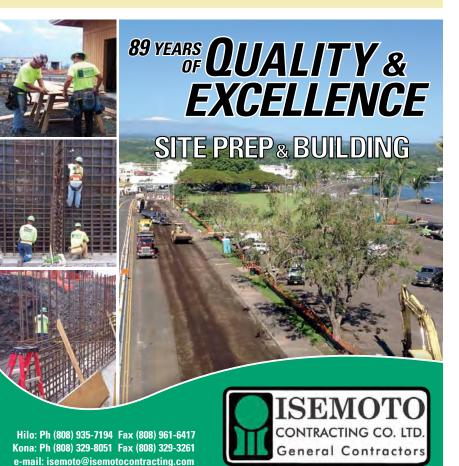


CONGRATULATIONS SWINERTON BUILDERS

Mahalo for making us a part of the team for the HPU Student Lofts!



841-7100 | jdpainting.com



From gaming guru to energy entrepreneur, HENK ROGERS looks to a bright future for renewable energy

BY PRISCILLA PÉREZ BILLIG PHOTOS BY GREG YAMAMOTO

HIS VISION IS ELECTRIFYING, his mission global. Clean energy proponent Henk Rogers, who wants to eliminate the world's dependence on carbon-based fuels, says Hawaii's mandate to reach 100 percent renewable energy by 2045 may come too late.

www.buildingindustryhawaii.com | 19

"Energy storage is the key to renewables," says Rogers, founder of Blue Planet Foundation. "We need to get there a lot faster. The world needs to get to 100 percent renewables a lot faster."

Rogers says his passion to replace the use of fossil fuels with renewable energy started with the realization that man-made carbon dioxide is destroying coral reefs around the world. The problem with renewable energy, he adds, is intermittency.

Wind and sun are not always available. Companies are competing to make better solar panels and wind turbines but, Rogers says, there

is not enough progress being made for storage and battery technology.

"I'm not about creating a new technology that hasn't existed before, going through years and years of testing to make sure it's ready for



Henk Rogers, who drives an EV Tesla, wants to help Hawaii's shift to renewable energy sources.

prime time," he says. "I'm about scouring the world for off-the-shelf technologies that can be deployed today because we need the storage now."

Rogers found what he was looking



Check out our new website: www.kloecknermetalshawaii.com

for at Sony Electronics. Integrating Sony's lithium iron phosphate battery technology with proprietary system architecture and energy management software, Rogers founded Blue Planet Energy Systems and led the development of Blue Ion. Launched in mid-2015, Blue Ion offers selfcontained energy storage packages that can help take energy systems off the power grid.

"I don't care where the energy comes from," Rogers says. "I'm just about storing it. The storage will work with wind, solar, wave, with wherever you get your power."

Rogers says he was motivated to disconnect from HELCO when he decided to study energy storage by building a 100-kilowatt solar array at his 28-acre Puu Waawaa ranch on the Big Island in 2010. "They wanted to know what my solar array was going to do to their grid," he says.

For his 6,000-square-foot home that sits atop Tantalus, Rogers wanted solar panels on the roof. "HECO said, 'Sorry, your neighborhood already has too many solar panels.' They could have put me off forever. There are tons of people who want solar but HECO is saying, no, we can't handle any more." But Rogers says he had solved the problem of disconnecting on the Big Island and would do the same for his Oahu home.

"I got batteries," he says. "I tell them we can play. We can connect

SOLAR POWER FOR HAWAII'S BUILDINGS

Commercial · Industrial Community & HOA's Government • Hotels & Resorts

Haleakala National Park

Off Grid PV System

Japanese Cultural Center of

Hawai'i, Roofing & PV Installation



United Laundy, Plant Operations Roofing & PV Installation

PROJECT PORTFOLIO / OFFERING

- Commercial, HOA's, Government, Non-Profit
- Residential & Emergency Portable Power
- Specializing in PV arrays on Roof Tops, Ground & Carports
- Grid-Tied, Off-Grid and Microgrid Systems

SPECIALTY PROJECTS

- Portable Emergency Power Systems
- Energy Efficient DC Cooling Systems
- Feed In Tariff (FIT)

PROJECT FINANCING

- PPAs, Loans, Leases & Zero Down Solar
- Financial Modeling

PROJECT SUPPORT

- Utility Interface
- Project Development & Management
- Annual Maintenance Contracts
- Fully Insured & Bonded



W.GREEN PATH-TECH .COM

SBA Certified 8(a) Native Hawaiian Organization (NHO)

www.greenpath-tech.com • info@greenpath-tech.com • (808) 748-8418



Central Pacific Bank, 175kW PV & Roofing Installation



to the grid and when you need extra power you can pull some out of the batteries and when you've got too much power on the grid we can suck some down into the batteries. That's the way you should be playing with all the people who have batteries in Hawaii."

Rogers takes issue with energy companies unwilling to change. "We, the consumer, are paying much more for solar than we should because the electric company has no storage," he says. "If they had storage they could buy more of the solar and wind and store it away. We would pay less."

For Rogers, there are two kinds of energy companies: one has to generate electricity and sell to customers; the other buys from whoever makes the energy and makes its money on the distribution of electricity. He sees the latter as having a future.



"The real way to do renewable energy is to have distributed energy, not have it generated in one place and wire it everywhere," Rogers says. "Rather, have little bits where everybody makes their own energy. Just to have that capability, that's the way of the future."

Hawaiian Electric Industries recently adopted a new Public Utilities Commission-approved policy that allows solar PV owners to store electricity, connect to the grid and take electricity when needed, but not send any electricity to the grid.

The Rogers home has three cabinets stored in the garage, which hold more than 60 kilowatt hours of stored energy from 96 photovoltaic rooftop

HAWAII'S Energy

- 46.3 million barrels of petroleum were imported for Hawaii's total energy use over the past year.
- \$5.09 billion left the state last year to pay for imported petroleum; \$4,000 for every person living in Hawaii.
- 11.3 million barrels of petroleum were burned by the Hawaii utilities last year to make electricity.
- The average residential meter in Hawaii uses 615 kilowatt hours per month.
- Hawaii ranks #1 in electric energy costs.
- Lanai 34 cents/kWh
- Molokai 32 cents/kWh
- Hawaii Island 32 cents/kWh
- Maui
 28 cents/kWh
- Oahu 25 cents/kWh
- U.S. avg. 11-12 cents/kWh
- 10.1 million megawatt hours of power were sold last year by Hawaii's electric utilities.
- Burning fossil fuels increases carbon emissions, which contributes to global warming. SOURCE: HAWAII ENERGY

Rogers' battery storage cabinets.

HI-POWER SOLAT General Contractor ABC - 30844 Introducing Blue Ion Batteries

SUNPOWER[®]

Premier Dealer



Panasonic ideas for life

 ✓ Residential & Commercial
 ✓ Leasing Options
 ✓ 0% Down Financing
 ✓ Locally Owned and Operated
 ✓ Solar Hot Water
 ✓ Photovoltaic

BUUE ION ENERGY STORAGE FOR YOUR LIFESTYLE



Hawaii Energy

Call us at 342-0802 www.hipowersolar.com

II



Henk Rogers relaxes in his 100 percent off-the-grid hilltop home.

panels—enough to run his entire house during the day. "My batteries are quick to charge and they don't get hot at the same time, so that's another added benefit."

Rogers says on a sunny day, his batteries are 100 percent charged by 10 a.m. That leaves the rest of the day to charge his two electric vehicles, which take about eight hours to fully charge.

To get around that, Rogers says, instead of storing energy in batteries, it is possible put a hydrogen fuel cell and a canister to store hydrogen in a car. "Your car is still an electric car; the difference is no batteries and the fuel cell converts hydrogen into electricity. You can go to a hydrogen filling station and fill a hydrogen tank in the same amount of time as a gasoline tank. That's the future." He adds that what is between us and the future is car manufacturers making hydrogen-powered cars and hydrogen-fueling station being located everywhere.

For now, Rogers says, the Blue Ion energy storage packages are perfect for businesses, schools, airports and military bases. As for affordability by the average homeowner, Rogers says the rule of thumb is the cost of the panels times two. "I'm an early adopter. Today, if the average homeowner asked me, 'Can I afford to buy this?' I'd say, 'Wait a couple of years.'"

What's Ahead

Rogers' company is about to begin work with a new development set to build hundreds of homes. He estimates the electric costs would be in the millions and it would take years to get infrastructure in place; to make all those homes off-grid would require acres of PV and megawatts of storage.

"That's going to cost either the same or less than waiting around for the utility to connect them," he says. "Then residents will have free electricity. That's got to be an interesting new development. I think all developments can be that way, especially in Hawaii."

With the state's 2045 commitment to energy independence in



place, Rogers says he is focusing much of his attention on other islands in the Pacific.

"All islands in the world have the same problem, but I'm going to start with Polynesia, then all the islands in the Pacific, then move to other islands, then on to continents," he says. "I may not wait. Things may happen faster. There are no rules."

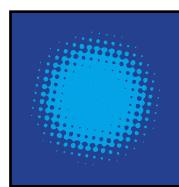
After meeting up with the *Hokulea* in the Caribbean and speaking at a conference in China, Dutch-born Rogers who is also the Honorary Consul of the Kingdom of the Netherlands to Hawaii, Guam and the Northern Mariana Islands, says he plans trips to Fiji, Tonga, Tuvalu, Palau, Guam and the Northern Marianas. "All places I want to convince to go 100 percent by ... soon. People will see by looking at the islands that it can be done anywhere. I think the repercussions will be felt around the world.

"The future of energy in Hawaii is that we will no longer be importing \$4 billion or \$5 billion dollars a year



of oil," Rogers says. "We'll use that money to build infrastructure to get free energy from solar and wind. That future is not very far out."

Rogers says he will support legislation that will increase incentives for renewable energy and lessen incentives for coal-, gas- and oil-based energy. "Some people say if you are not in the business you are not going to make a change. So I'm going to help Hawaii solve its storage problem."



Patented square spray nozzle distributes water more evenly. This cuts water and energy usage, reduces scaling and

maintenance cost.

Old technology.

Square is cooler.

Introducing the absolute best cooling tower for Hawaii: Tower Tech, only from Carrier Hawaii.

With Tower Tech's patented spray nozzles, heavy duty fiberglass construction, sump-free drainage and ultra-low

maintenance fan assembly, your cost savings can be up to 54%. For information call Carrier Hawaii at 677-6339.





Carrier Hawaii, a locally owned distributor Kapolei Honolulu Kahului Kailua-Kona (808) 677-6339 • CarrierHawaii.com

www.buildingindustryhawaii.com | 25

The 'Greening'

Hyatt Regency Maui Resort and Spa has installed one of the largest rooftop photovoltaic systems in Hawaii.

of Hawaii

Industry experts look for ways to take the sting out of energy costs

BY PRISCILLA PÉREZ BILLIG

Building green comes down to dollars and sense. Under a 2015 mandate to have all its electricity sales come from renewable sources—such as solar photovoltaic, wind turbines and ocean energy conversion by 2045—Hawaii may finally free itself from oil dependence and paying the highest prices for electricity in the nation.

Industry experts agree that building green may be the smart solution. While initial expenses may be higher, the lifecycle costs of building green lower considerably, negative impacts on the environment decrease and overall occupant comfort improves.

"Most of the rating systems out there look at energy use, water use, indoor environmental quality, how the site is dealt with and materi-

als that are used in the building," says John Bendon, principal with Green Building Hawaii Consulting & Training.

Bendon cites the early plantation-style homes



John Bendon

as an example of building green under today's standards because they were small, located near town centers or around sugar mills, had low impact yards, typically with gardens, and used very little energy or water because of passive cooling and very few water fixtures.

"When we discuss green building in Hawaii today," Bendon says, "we are really trying to get back to the types of impacts that these previous structures had, yet still allow for all the modern comforts that are expected. Implementing the elements that define green building reduces the need for the outside inputs that buildings typically consume."

For Westley Bagsby, energy consultant and commercial project coordinator at Hi-Power Solar, renewable energy and building green go hand in hand. "From the aspect of building green, materials, location and design technology



Westley Bagsby

important to take a holistic view when it comes to our energy use."

Building green to Mike Fairall of

Mokulua High Performance Builder means implementing best management practices to control pollutants caused by runoff, waste management, conserving water



are used to make

the building more

energy efficient,"

he says. "Once

a home is less

energy reliant,

the next obvious

the energy it uses

step is to make

renewable. It's

Mike Fairall

and energy while maximizing the indoor air quality through proper ventilation strategies and material selection.

Building green includes "passive" cooling, an archi-



Gregg Murphy

tectural design approach that uses a building's components rather than mechanical systems. "Passive solar design allows windows to be shaded during high sun hours for natural cooling of a home and positioning the roof layout facing south to accommodate solar water heating and PV," says Gregg Murphy, vice president of sales, Blue Planet Energy Systems.

"It's hugely important but, unfortunately, Hawaii has done a poor job of implementing a functional green building program that is supported by the state through programs and incentives that promote a well-rounded approach to improving energy efficiency and sustainability," Fairall says.

Going Solar

According to the Solar Energy Industries Association (SEIA), more than 116 solar companies currently operate throughout Hawaii. In 2015 Hawaii invested \$331 million on solar installations with 117 MW of solar electric capacity, ranking it 13th nationally.

This represents a 3 percent increase over 2014 figures, and SEIA expects an additional increase again this year. Installed solar photovoltaic system prices in the U.S. have dropped steadily-by 6 percent since last year and 48 percent since 2010.

The 564 MW of solar energy currently installed in Hawaii places the state eighth in the country in installed solar capacity. There is enough solar energy installed in the state to power 146,000 homes.

In a statement released last month,



COMMERCIAL | TRAINING | RESIDENTIAL We Deliver Sustainability Solutions

We transform built environments into models of sustainability by delivering consulting and training expertise that optimize performance and maximize value.

- Energy Consulting & Project Management
- Building Performance Testing
- LEED & Energy Star Consulting
- LEED & Energy Efficiency Training
- Non-biased third party analysis & solutions to meet client needs



GREEN ING CONSULTING & TRAINING GreenBuildingHawaii.com

John Bendon, Principal | 808-873-2040 | Info@GreenBuildingHawaii.com

MILGARD[®] ESSENCE SERIES[®]

BETTER WOOD WINDOWS AND DOORS

Experience the revolutionary design of all natural wood paired with a fiberglass exterior frame.

The fiberglass exterior comes in 16 designer colors that fit any style or trend. Interiors are available in clear, vertical grain douglas fir, natural pine or primed pine.

Milgard Essence Series are the only wood windows and doors backed by a Full Lifetime Warranty with Glass Breakage Coverage. Add to that ENERGY STAR® rated performance without costly upgrades, and it's easy to re-imagine the possibilities for your projects.

Contact Karen Davis

Milgard Architectural Representative Call (253)320-5012 or email KarenDavis@milgard.com





Introducing the new Essence Series[®] Sliding French Patio Door. Designed to perfectly complement the rich, warm wood interiors of Essence windows, the new Essence Series Sliding French Patio Door is built with solid wood and a durable fiberglass exterior.

PBS Hawaii's New Home

"Building green" has framed the construction of PBS Hawaii's new broadcast studio facility on Sand Island Access Road, incorporating sustainable products and practices for its nearly 40,000-square-foot property.



"We have tried to apply as many sustainable features as possible to this project," says Sheryl B. Seaman, Group 70 International vice chair and partner in charge of the new PBS

Sheryl Seaman

facility design. "We chose not to register it for LEED [Leadership in Energy and Environmental Design] certification because it is a nonprofit



Construction of the new PBS Hawaii shows the light shelf and the supports for the bris soleil, two of the property's green features.

organization and the accompanying costs for documentation and commissioning seemed better spent on features themselves."

The original building structure was poured-in-place concrete. The addition is mainly steel frame with metal deck and concrete topping. The elevator shaft is poured-inplace concrete and there is some CMU infill between the existing columns. The exterior is EIFS. The fenestration is anodized aluminum. The decorative exterior panels are laser-cut aluminum. The glass is low e.

Interior glass has decorative film to provide some privacy but to maintain the open feeling of the conference spaces. Floors are Shaw wood-look vinyl plank. Carpet is Patcraft. Ceiling is Armstrong wood-look plank. Acoustic panels are Koroseal.

PBS Hawaii's new home will be called The Clarence T.C. Ching Campus, a curved, two-story facility constructed by general contractor Allied Builders System—selected from a roster of 13 bids in October 2014—on budget and on time. The grand opening is set for September.

Major contributors to this publicprivate partnership include Matson Foundation, Alexander and Baldwin Inc., Armstrong Foundation, A.C. Kobayashi Family Foundation and Island Insurance Foundation.



PHOTO BY KARL HEDBERG

PBS Hawaii New Home Sustainable Strategies

The strategy for the PBS building has been to incorporate all sustainable products and practices that would not add appreciably to the overall building costs.

Sustainable Sites:

- The reuse of an existing building for the new studio is a sustainable practice.
- Location on a bus route makes alternative transportation viable.
- More than half the parking will be under the building, also reducing the heat-island potential.
- Cool roof materials will lower the air conditioning costs and counter-act the heat island potential.

Light Pollution

- All exterior night lighting will be appropriately shielded to prevent overflow to adjacent properties or from shining upward.
- All security lighting will be on a timer to prevent overuse of the lighting when not needed.

Air Quality

• Only materials with low voltaic organic compounds will be used for



Bris soleil panels



the interior building finishes.

• Appropriate filtration will be provided for all air handling devices.

Energy Efficiency

- Day lighting in the form of a light shelf will bring natural light into the building.
- Occupancy sensors will be provided on all spaces to reduce energy consumption.
- Lighting will use high efficiency sources and will use indirect fixtures to avoid glare and hotspots.
- Glazing will be low e glass to reduce heat gain and lower air conditioning costs.
- Shading of glass and/or limiting the amount of glass on south and west facing walls to reduce heat gain.
- Variable speed motors for all condenser units to lower energy consumption.
- Thermostat controls and zoning of air conditioning to provide thermal comfort and minimize the overuse of air conditioning.
- Solar hot water is provided in the kitchen, toilets, and shower.
- A portion of the roof has been reserved for future photovoltaics.

Water Conservation

- Low flow fixtures for toilets and break rooms.
- Landscaping selected for low water consumption.

Rapidly Renewable and Recycled Materials

- Many interior finish materials incorporate recycled material including carpet, upholstery and insulation.
- The facility may incorporate rapidly renewable materials such as wool, cotton, grass cloth, coconut wood and shell, bamboo and other similar products in the interior design selections.

Hawaiian Electric Companies report that Hawaii continues to lead the nation in rooftop PV, and solar power keeps rising under the Public

Utilities Commission's newly approved programs. Hawaiian Electric Companies have approved 350 applications for the new grid supply program.

More than 77,000 customers of the Hawaiian Electric Companies—approximately 17 percent of all customers—have installed or have been approved to install PV. In 2015, 26,000 PV systems were installed or approved. On Oahu, 32 percent of single-family homes have rooftop PV installed or approved for installation. Among the state's more notable solar projects is developer SolarCity's completion of Kauai's Grove Farm photovoltaic project in ...continued on page 68



A Hi-Power Solar commercial PV project



CONCEPT TO COMPLETION

Bathrooms feature slate floors, teak-paneled walls, artisan tiles, carved stone vanity, double-wide rain shower, deep soaking bathtub and private WC.

Four Seasons Resort Lanai

-N

BY PRISCILLA PÉREZ BILLIG

Simply amazing! Jaw-dropping enhancements! These are among the many accolades praising general contractor Hensel Phelps' complete renovation of the guestrooms at the Four Seasons Resort Lanai.

"Izzy Sharpe, CEO of Four Seasons Hotels & Resorts, is blown away," says John Hardy, president of the John Hardy Group Inc., which represents the project owners. "He said it not only sets a new standard for Four Seasons Hotels & Resorts, but for all resorts. Larry Ellison is ecstatic."

Pulama Lanai, founded by Ellison to develop and manage

renovation of guestrooms and suites, corridors and the exterior of the buildings," says Spraberry. "Part of the renovation included consolidating a portion of the existing guestrooms into larger luxury suites."

During the renovation, the resort remained fully functional with approximately 50 percent of the rooms occupied

at all times. Spraberry says Hensel Phelps prioritized maintain-

ing the guest experience by defining routing to separate construction crews from guests.

"All the construction trades wear resort-style uniforms to blend in with the hotel staff and utilize carefully planned schedules to limit noise disruption," Spraberry says.

Among the challenges of working on a remote island, Hensel Phelps was faced with limited housing and food

his holdings on Lanai, selected Hensel Phelps using a "Best Value" procurement method, says Kyle Spraberry, Hensel Phelps project development director. The resort, set atop red lava cliffs overlooking Manele Bay, includes 204 guestrooms and suites in nine two-story buildings surrounded by lush gardens, swimming pools and spa, restaurants and other features.

"Hensel Phelps' project scope consisted of the



Four Seasons Resort Lanai ocean front guest rooms



Wasa Electrical Services, Jnc. Wasahawaji.com

options for its construction workforce, which peaked at 480. According to Spraberry, "Hensel Phelps' project staff and subcontractors dedicated countless hours, weekends and personal time to ensure the success of the project and that all schedule milestones were met."

The Four Seasons Resort Lanai property is separated into nine different buildings connected by open breezeways that wind through tropical gardens. To further complicate the logistical challenges, each building is on a different elevation as the property is on a sloped site.

"With approximately half the property remaining operational during construction, Hensel Phelps had to develop a plan to distribute materials and equipment to each room as well as remove all demolition debris—all while be invisible to the resort guests," Spraberry says. "So, Hensel Phelps designed and constructed a custom conveyor system to transport materials and equipment throughout the property. With the help of Baldridge and Associates Structural Engineers the system was designed with enough capacity to convey all the materials and demolition safely through the site."

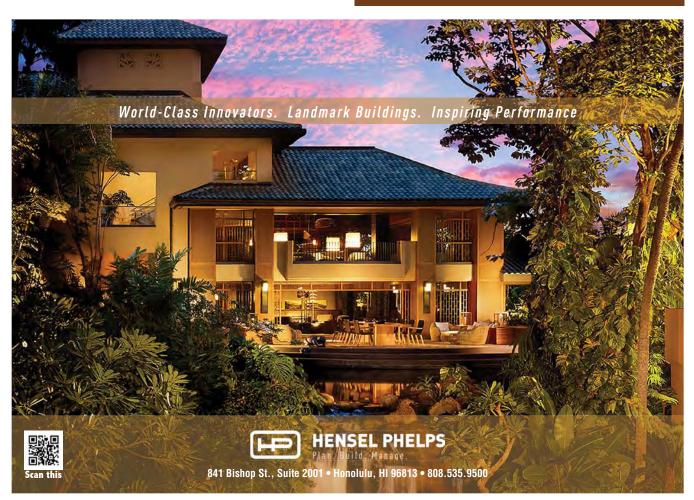
According to Spraberry, the project had three major phases and was faced with numerous scope changes throughout the renovation process. "Each change presented unique challenges that the entire team—including designers, ownership, subcontractors and Hensel Phelps—was able to embrace and execute flawlessly to deliver a phenomenal project for Pulama Lanai." Thankyou

Hensel Phelps for allowing us to be a part of your team on the Manele Bay Project!

Main Office- Honolulu 1021 Kikowaena Place 808-839-2741 Civil Office - Honolulu 766 Mapunapuna Street 808-839-2248

Kona, Hawaii 808-329-8414 Lihue, Kauai Wailuku, Maui 808-245-2941 808-242-9764

License No. C-10008 • Specialty License C-13, C-15, C-62,



Recyclable metals are cut down for packing and shipping. PHOTOS COURTESY LENOX METALS

L

1

5

VCLING: INVESTING IN RETURNS

Island firms tighten belts as the value of metal recyclables falls sharply, rises slowly

BY ALBERT LANIER

sland Demo, a recycling and demolition firm operating in Hawaii for more than 20 years, reported earnings of \$500,000 from recycling metals in 2013, when metal recycling was \$250 a ton.

As 2016 began, says Island Demo owner Mike Leary, metal rates fell to about \$40 a ton—a steep drop of \$210 a ton. "The volume isn't there," he says. "The bottom has fallen out of the commodity."

Alan Hornstein, owner of Lenox Metals, says that "scrap metal has probably shown the greatest decrease, with prices dropping as much as 75 percent," and adds that "prices for recyclable metals have fallen a great deal in the last few years."

Says Leary: "It's just a different scene these days, and nobody cares."

Like any industry, the recycling and demolition businesses have had

to deal with the complications created by economic downturns, such as the recession of 2007-2009.

"The recession caused many companies involved in the recycling business to close their doors," Hornstein says. "Commodity prices plummeted in 2008 and economic activity decreased. With a downturn in consumer spending

and construction, less metal was produced for recycling."

"It was like someone turned the switch off," says Leary. The com-

modities market, however, lately

has begun to be more favorable on copper prices, says Hornstein. "Right



now the market seems to be coming back," he says, while checking the London stock market showing the mid-day (Hawaii time) price of copper had risen to \$2.30 a pound as recently as mid-March.

Change Happens

The demolition business has experienced major changes over the years. Island Demo, one of the pioneers in the demolition trade in Hawaii, spearheaded "tenant-ready space"—cleared and prepared square footage within buildings ready to be leased—by promoting a shift to doing demolition work at night.

Demo crews would go in after cleaning crews had finished their work, usually around 9:30 p.m. The demo work would be completed before employees arrived for work the next morning.

Leary, who worked in demolition prior to founding his company, says that in the past the demolition of interior office spaces and building in general was undertaken during daytime hours in Hawaii. It wasn't unusual for contracting crews to be going up to work on a

Semana manager

floor on the same elevator as office workers. "It not only didn't make sense," he says of working during daytime office hours, "it made people uncomfortable."

The early years of Island Demo were good, Leary says. "In the '90s, people were renting large office spaces. Occupancy was at 92 percent."

Now, the market share for Island Demo is smaller. "Hawaii is kind of limited," says Leary. "There's more competition, more competition than there has been."

"Over the years, the difficulty of being in the recycling business has increased, as it has in many businesses," says Hornstein. "Keeping up with all of the environmental and safety regulations requires dedicated staff.

"In addition, transportation logistics for a Hawaii-based recycling company can be challenging."

Re-Use Hawaii, a nonprofit orga-

nization founded by Quinn Vittum and Selina Tarantino in 2006, takes waste from construction and demolition projects and makes usable components available to people in the larger community.



Quinn Vittum

Vittum says Re-Use Hawaii has a "deconstruction program and operates as a licensed and insured demolition contractor dissembling buildings in the

HITACHI

Scrap metals are sorted to be recycled.

opposite order as they are built.

"In the process, we can salvage up to 80 percent of a building for reuse. We make a distinction between recycling and reuse," Vittum adds. "Re-use is where material is used in the same form or function as previously, where recycling involves processing and manufacturing."

Vittum notes that "our priority is to make sure that these materials are put back into circulation and kept out of the waste stream."

Vittum says that Re-Use Hawaii has steadily grown every year since 2006. The organization now has a staff of 35 and has "just expanded in the last year to three deconstruction crews that work simultaneously."

Better Technology

Along with economic change comes technological change. Vittum notes that Re-Use Hawaii uses "pneumatic denailing tools in our material processing department, which increases productivity by five compared to



Cash Flow Problems?

- Slow Accounts Receivable Payment?
- Unable to Collect Retentions?
- Challenges in Planning for Tax/Union Payments?

We Can Help. Call Us for Details.

Garret J. Sullivan President SULLIVAN 37 years of hands-on industry experience

808.478.2564 | GSullivan@SullivanHI.com | www.SullivanHI.com

L RENTALS CONSTRUCTION EQUIPMENT



FORKLIFTS • REACH LIFTS • SCISSOR LIFTS • GENERATORS AIR COMPRESSORS • BACKHOE LOADERS • EXCAVATORS WATER TRUCKS • TRUCKS • BOOM LIFTS

OAHU	MAUI	KAUAI	LANAI
808.693.8771	808.873.2100	808.246.3900	808.208.0425
LOC	ALLY OW	NED	Proudly supports

www.buildingindustryhawaii.com | 37

de-nailing by hand.

"We've also honed our deconstruction systems to include compact telehandlers, which helps us handle material more efficiently and safely."

Leary says grinders that can smash and grind up C&D waste and material have gotten smaller and more productive on a per-ton basis.

Remote-control chipping hammers that can be attached to a surface and operated via controls with a joystick have emerged in recent years as well.

Advance and Survive

How are recycling and demolition firms surviving in today's economic climate? For one, fiscal prudence. "Everybody watches their pennies," notes Leary.



Metals of all shapes and sizes are loaded and shipped to be melted down and resued.



Construction Professionals and Contractors!

For Island Demo, this means renting instead of owning equipment, which includes scissorlifts, forklifts, chipping hammers and more.

Hornstein notes that "a key challenge to being in the recycling industry is price volatility. When commodity prices rise so does the incentive to recycle. When prices fall, that incentive decreases and less items may make it into the recycling stream. Currently, metal recycling in Hawaii is challenging."

Hornstein adds that "in order to meet these challenges, recycling companies must improve efficiency and continue to help their customers reach their recycling goals."

Island Demo's transfer station in the Nimitz Highway area allows contactors to bring their C&D materials and waste to be dropped off. Leary also says that his company has "maximized loads" to make fewer trips to a landfill in Nanakuli with more material. This



Different kinds of metals are sorted for recycling.

has also helped the company's bottom line and made the firm more efficient.

Despite the challenges, recycling and demolition firms are managing to stand firm in Hawaii. For example, Re-Use Hawaii has 22 confirmed projects slated for the new few months, including working on homes in Kailua, Kaimuki and on the North Shore.



"I would like to continue to encourage our young and talented professionals in the industry to get involved with the GCA." —Clay Asato

Clay Asato PHOTOS BY GREG YAMAMOTO (3)

A STRONG AND STEADY HAND

Clay Asato focuses on education, technology and legislative changes as 2016 GCA president

BY BRETT ALEXANDER-ESTES

For Hawaii contractors, 2016 may be the start of a sweet ride, says Clay Y. Asato, the new president of the General Contractors Association of Hawaii.

"Currently, we are projected to be in a growth cycle," he says. "With rail continuing, many more condominiums in the planning stages, new subdivisions overcoming hurdles and government projects on the rise, economists are projecting that there is enough out there to boost the industry for the next several years."

Asato, who also is president of Koga Engineering and Construction Inc., brings more than 30 years of construction experience to his role as this year's leader of the GCA of Hawaii. At the GCA, he heads a board of directors that includes Cedric Ota of Hawaiian Dredging Construction Co. Inc., Jay Manzano of Unlimited Construction Services Inc., Anna Herrera of Kaikor Construction Co. Inc. and Johnny Higa, continuing executive vice president.

Though construction opportunities abound, there are still pitfalls for Island contractors, Asato says. In 2016, he says, Hawaii's largest general contractors' association will confront the "many issues facing our organization and the industry here in Hawaii. Among them are PLAs (project labor agreements) and procurement interpretations, manpower education and workforce development, safety education and environmental issues."

George Ehara of Swinerton Builders and the GCA's president last year, notes in



2016 GCA installation, (from left), 2015 GCA President George Ehara; 2016 2nd Vice President Jay Manzano; 2016 Treasurer Anna Herrera; 2016 GCA President Clay Asato; 2016 1st Vice President Cedric Ota; 2016 Executive Vice President Johnny Higa.

Contractors & Developers

Let us be your bridge to the mainland manufacturing base. Procurers of all manner of building materials.



NEW CONSTRUCTION - REMODEL - RESIDENTIAL - MULTI FAMILY

OUR ONLY FOCUS IS CONTRACTORS & DEVELOPERS IN THE ISLANDS. We have the knowledge and resources to procure a vast array of specialty materials that are in high demand in Hawaii. WE STRIVE TO BE OUR CUSTOMERS' SOLUTION BEFORE THERE ARE PROBLEMS.

ISLAND CONTRACTORS SUPPLY LLC

Mainline (360) 804-2191 Fax (360) 863-2336 Mike Johnson – mike@islcs.net Carrie Johnson – carrie@islcs.net

www.islcs.net like us on Facebook!

tractors

Construction Preview 2016 that "construction prices are expected to continue to rise in 2016." Asato says this is his mandate to "collaborate with leaders of the various state, city and federal agencies to streamline processes and reduce overall cost of construction" and to "continue to voice our concerns on issues at the legislative level."

Solid Support

Higa says Asato "is highly qualified to lead the dynamic GCA board of directors in working on and resolving all issues affecting Hawaii's construction industry."

The GCA's 20 internal committees provide ongoing updates to Asato and the board. "This process has worked well in identifying and resolving key industry issues related to federal, state and county agencies, safety, legislative, education, environment and 'young leaders,' to name a few," says Higa. If any committee has issues that cannot be resolved at the committee level, he says, it "may bring the issue to the board of directors via the committee chair and mentor for action."

"The hard work of the committees and its members help to drive the organization," says Asato. "I would like to



Serving Hawaii continuously since 1966

and the second of the second of the second of the second of the second second second second second second second



Direct ocean transport from the Pacific Northwest

Weekly Service
Door-to-Door Delivery

- Reliable & Efficient
- Flexible Cargo Capability



Contact us for assistance with your shipping needs.

Call us at: **1-800-234-5841** or Email us at: **shipping@sause.com**

www.sause.com

continue to encourage our young and talented professionals in the industry to get involved with the GCA."

The GCA's 2016 officers—who have diversified backgrounds in waterfront, building and site construction and serve on many industry boards—are up to this year's challenges, says Asato who, as an engineer and licensed contractor, is well-grounded in building principles and project specs.

"Although licensed to do site, civil and building construction, Koga Engineering concentrates primarily on civil engineering-type projects involving excavation, utilities and roadwork," Asato says of the company he joined as a field engineer in 1984.

The firm, which typically posts \$20 million in annual revenue, also specializes in site preparation for general building contractors as a subcontractor. As Koga Engineering's president, Asato

Clay Asato Up Close

- 2016 president, General Contractors Association
- President, Koga Engineering and Construction Inc.
- Born and raised in Honolulu
- Education: Saint Louis High School; University of Hawaii (B.S.- Civil Engineering)
- Registered professional engineer; licensed contractor
- Certifications: HAZWOPER 40-Hour Certification; OSHA 30-Hour Certification; First Aid / CPR Certification
- Family: Wife Lisa; daughters Kayla and Shelby
- Favorite Team: UH Rainbow Warriors
- Favorite Food: Japanese and Korean
- Favorite Hobbies: Judo, surfing, diving, fishing, golf



2016 GCA OF HAWAII BOARD OF DIRECTORS

Clay Asato, President Cedric Ota, 1st Vice President Jay Manzano, 2nd Vice President Anna Herrera, Treasurer Johnny Higa, Executive Vice President

grapples constantly with construction budgets and contract negotiations. "Work (at Koga Engineering) is obtained through competitive bidding and negotiating various types of contracts—fixed price, cost-plus, unit price, design build, etc."

He says the firm's clients include governmental agencies (federal, state and county), private developers, municipalities and private industry.

'Don't Give Up'

Strategy is vital to all successful endeavors, and was central to the enactment in December 2015 of the federal FAST Act, long supported by the national Associated General Contractors and the GCA.

> "The \$305 billion FAST Act ensures national surface transportation funding for at least five years," says Asato. Since 2005, he notes, no funding reauthorization lasted for more than two years. "It is very difficult to plan for maintenance and improvements with federal funding unknown. For the GCA, the focus on this issue will now shift to ensuring that Hawaii gets its share." Strategy also characterizes judo, Asato's

high school sport. Asato, who still practices twice a week, says judo delivers a strong message: 'Get up, try again, don't give up'—a fitting motto for the GCA's new president as he tackles 2016 construction issues and "continues to execute and improve on our strategic plan."

PHOTO BY GREG YAMAMOTO

BUILD BETTER







GLULAMS @ KEAUKAHA ELEMENTARY SCHOOL



STEEL FRAMING @ KA MALANAI, KAILUA

CUSTOM METAL ROOFING

FROM YOUR FOUNDATION TO YOUR ROOF & EVERYTHING IN BETWEEN,

WE'LL HELP YOU BUILD BETTER



FOR STATEWIDE SERVICE CALL US TOLL FREE 1-877-841-7633 OR VISIT US ONLINE AT HPMHAWAII.COM



ifie(GCA of Hawaii leader says group's 2016 initiatives work for industry as a whole BY BRETT ALEXANDER-ESTES

ohnny Higa, executive vice president of the General Contractors

Assocation of Hawaii, has a plan to prolong Hawaii's construction boom. He says ongoing construction momentum requires ongoing support of the state's general



Johnny Higa

contractors. And the GCA, he adds, has the strength and foresight to equip its members for the challenges ahead.

In 2016, says Higa, the GCA's to-do list includes "working with government agencies and private developers to promote construction activities, maintaining a skilled workforce and supporting construction careers, discussing and implementing solutions to improve Hawaii's procurement process, and providing top-notch

professional, safety and general industry training and certification programs."

Through 2015, the GCA's membership has been "stable," Higa says, and he expects Hawaii's largest general contractors' association to keep pace with the state's booming construction. "The GCA will benefit with additional contractors performing work in Hawaii's market," he says.

The GCA also is gearing up for its annual Build Hawaii Awards, which honors the best in Island construction each year,. This year's celebration is set for April 23 at the Modern Honolulu.

2015 Advances

In 2015, the GCA gained solid ground in its ongoing education, internal management, community service and legislative advocacy campaigns, Higa says. Notable achievements include 40 different educational sessions attended by more than 1,000

GCA members and non-members, GCA's partnership with The Howard Hughes Corporation that raised \$58,700 for Child and Family Service and significant progress on specific bills in the state legislature.

"The 2015 legislative session victories include defeating unnecessary contractor licensing amendments that attempted to restrict the scope of work one can perform," says Higa. "In addition, the industry-together with other alliances-was able to fend off any changes to Hawaii's workers' compensation law, particularly with regard to the taking away the employer's right to choose a treating physician for the injured employee if there was a question of an injured worker's recovery."

Higa says the GCA also worked to improve the procurement of public works construction through measures addressing the state's subcontractor listing requirement.

(Left) GCA's 2015 partnership with The Howard Hughes Corporation raised \$58,700 for Child and Family Service.

"While (the measures) did not pass, we continue to educate the legislature about the millions of dollars being wasted due to challenges and protest associated with subcontractor listing," says Higa.

Goals in 2016

During the 2016 session, Higa says, the GCA will work to amend the subcontractor listing law under Hawaii Revised Statute (HRS) 103D-302 currently before the legislature. Higa says this will "improve efficiency in public works procurement by reducing waste, delay and bid protest."

The GCA also opposes "unnecessary contractor licensing law amendments," and supports an "employer's right to use medical examinations of injured workers" and "recognize it as an employer's medical examination."

Higa also says "the GCA will continue in 2016 to provide its members the opportunity to give back to the community, and to fund \$140,000 per

GCA of Hawaii Classes

January-April

- 40-Hour Construction Safety Hazard Awareness Training for Contractors Course
- Construction Quality Management (CQM) for Contractors
- First Aid/CPR Class
- OSHA 30-Hour for the Construction Industry
- Risk Management and Problem Solving*
- Improving Productivity and Managing Project Costs*
- Contract Documents*
- Leadership and Motivation*

* Part of the Associated General Contractors of America's Supervisory Training Program

year for a full-time assistant professor position at the University of Hawaii to teach construction management courses."

Opportunities Ahead

"Hawaii's construction industry will have a good year in 2016, and that momentum should continue in 2017, with a larger base of construction activity expanding to other types of construction projects," says Higa.

Going forward, he says, the GCA

wants to "increase the extensive list of its educational opportunities, and for more GCA members to engage in issues that affect their business by joining a GCA committee" as well as by attending a GCA class, social event and participating in GCA's Safety and Build Hawaii awards programs.

"I would like the GCA to continue working together as an association advocating on industry issues with one unified voice to improve Hawaii's construction industry," Higa says.

Shipping to Hawaii... We've got you covered!

Lynden is proud to announce the addition of barge service to Hawaii from the Pacific Northwest. With every other week barge service, you can now choose the mode — barge, ship or air — that best fits your schedule and budget. With Lynden, you only pay for the speed you need!



www.lynden.com 1-888-596-3361

COLLABORATION: General Contractors & Architects

Building a Total Health Environment

Aloha Medical Center

Pain Free Kaual Linue Dental

KAISER PERMANENTE

Dermatology

Three firms join forces to deliver Kauai's first Kaiser Permanente clinic

Kauai's new Kaiser Permanente Lihue Clinic

"The Total Health Environment incorporates local design features with national standards."

-Stanford C. Lee





'Virtual reality' exam room with wide-screen LCD screens, highdefinition cameras and photo-friendly wall tints

BY BRETT ALEXANDER-ESTES PHOTOS COURTESY NEXT DESIGN LLC

n the Garden Isle, membership in Kaiser Permanente is growing. So is the need for direct—and sometimes instant—access to Kaiser's healthcare

providers and off-island network. In September 2015, Hawaiian Dredging Construction Co. Inc., Shioi Construction Inc. and Next Design LLC began the build-out of Kaiser's first clinic on Kauai. The new \$2.6 million clinic is Kaiser's first in Hawaii to offer comprehensive "virtual reality" health-

care as well as an onsite medical staff. "Kaiser Permanente has been offering health coverage on Kauai since 1997," says Stanford C. Lee, Next Design LLC co-owner and principal. "Opening their first facility on Kauai gives its 2,400plus members another option to receive high-quality, patient-centered care. It (also) allows a wide range of patient care to be delivered remotely."



Stanford C. Lee



Robert Tomas

The project delivery date was timesensitive, says Robert Tomas, Hawaiian Dredging project manager, and led straight to Shioi Construction.

"Shioi Construction was utilized as a 'super sub' or prime subcontractor because of its long and successful history on Kauai," says Tomas. "They were able to utilize key subcontracts that were locally based on Kauai to ensure the scheduling demands were met."

Recently, *Building Industry Hawaii*, Lee, Tomas and Conrad Murashige—Shioi Construction president and Kaiser project manager—reviewed the specs and expedited delivery of Kauai's new Kaiser Permanente Lihue Clinic.

What was the goal of this project?

LEE: To provide on-island Kaiser Permanente medical services to the Kauai membership.

TOMAS: This was very much a schedule-driven project. That goal was understood by the entire construction team before the project broke ground.

MURASHIGE: Work with the GC on a fast-tracked project where plans were not substantially complete before proceeding with certain portions, such as demolition, construction plans, etc.

The new clinic is housed in the Kukui Grove Health Center. What was the scope of the project?

TOMAS: This project was a tenant improvement build-out of an existing 4,100-square-foot space, which included select demolition.

How is the new clinic configured?

LEE: Departments include primary care, pharmacy, lab and exam rooms equipped for telehealth services.

COLLABORATION: General Contractors & Architects

Did telehealth services influence the build-out?

LEE: We worked with the Kaiser Permanente Information Technology project manager and his counterparts on the mainland to understand the Kaiser Permanente national design standards that were still in development and determine how they could be incorporated into the Lihue project.

What were Kaiser's standards?

LEE: Incorporation of Kaiser Permanente's Total Health Environment program in all aspects of design. The Total Health Environment incorporates local design features with national standards for safe, healthy, environmentally friendly places to work and receive care.

TOMAS: Paint colors, lighting, signage, and flooring colors and design patterns among other items—were a part of Kaiser's Total Health Environment brand, which incorporates the patient member healing and wellness environment into the design and construction stages of the project.



Robert Tomas of Hawaiian Dredging (top) and Michael Okamoto of Next Design during installation of OFVI (Owner Furnished Vendor Installed) shelving

What else does Kaiser's brand include?

TOMAS: To ensure equipment was consistent within Kaiser, major equipment was procured directly by Kaiser. Material purchased and/or specified for the project was either from Hawaii (cabinets and millwork) or the West





Commercial • Resorts and Hotels • Healthcare Multi-Family and Residential Condominiums • Institutional Industrial • Tenant Improvements • Design-Build

OAHU: 98-724 Kuahao PI • Pearl City, HI 96782-3113 • Ph: 808.487.2441 • Fax: 808.487.2445 **KAUAI:** 4023 Halau St • Lihue, Kauai, HI 96766-1415 • Ph: 808.245.3975 • Fax: 808.245.3977

www.shioihawaii.com Lic# ABC-12379

Coast to ensure shorter lead times were dealt with.

How did you coordinate construction with deliveries?

LEE: To address the shipping lead times, we worked closely with the contractor to have them prioritize orders on longer lead items. From the design side we looked at our overall material selections to work with products that were in stock at the factories and mills on the mainland. We also expedited our submittal reviews. Electronic submittals were standard and we only had a few hard copy submittals for finish-type items. From the owner's side, they advance-ordered much of their equipment and consolidated it in Honolulu prior to deployment to Kauai.

TOMAS: The services of a full-time, third-party expeditor was also used to ensure all material was onsite to avoid any delays in the construction process. Expediting services not only tracked procurement and delivery of construction-related items, but owner furniture and equipment as well.

How did the build-out proceed?

MURASHIGE: Selectively demolish certain portions of existing suites (approximately 4,000 square feet), leaving most of wall structures and ceiling structures in place.

TOMAS: Sawcut existing slab for tie-in of new utilities into existing utility system. Provide flooring underlayment and moisture mitigation system for new flooring. **MURASHIGE:** Provide new below-grade drainage where existing infrastructure could not be reused.

TOMAS: New flooring consisted of carpeted areas for staff offices and meeting rooms, rubber "wood replicated" planks in the waiting area, and rubber patterned tile for patient areas. To ensure scheduling was met, (we) hand-cut all flooring design patterns onsite. This eliminated the need to have flooring material sent out to be factory-cut. Long broad curves were incorporated into the design to help facilitate this process.

MURASHIGE: Labor for rough and finish carpentry, casework, plastic fabrications, signage, specialties, ownerfurnished specialties, wood doors and metal frames. Furnish and install new gypsum board and acoustic ceilings, drywall and specialty (wood-grill) ceilings. Paint walls and millwork. Install new air-conditioning devices, plumbing and fixtures, and electrical and communication infrastructures/systems.

TOMAS: The new air conditioning system consisted of tying air distribution system into an existing building air conditioning unit shared by neighboring tenants in the same building. New fan coil units were also installed to provide dedicated air conditioning to the new pharmacy and IT room.

MURASHIGE: The project was deemed substantially complete on Jan. 20, 2016.

What equipment is used in the telehealth exam rooms?

LEE: Wide-screen LCD screens, high-definition cameras, biotelemetry

'PREFERRED PROVIDERS'

Next Design LLC and Hawaiian Dredging are part of Kaiser Permanente's 'Preferred Providers Program,' and have previously completed projects for the client at the following locations.

Next Design LLC:

- Koolau Medical Office
- Pearlridge Clinic
- Kona Medical Offices Hawaiian Dredging:

Hawalian Dredging

- Moanalua Facility
- Honolulu Clinic Facility
- Mapunapuna Facility
- Wailuku Facility

carts with telecare and teledermatology capabilities.

Do the telehealth exam rooms have special features?

LEE: Our room designs incorporated muted color palettes on the walls for better skin color rendition and to reduce camera exposure issues. Fully insulated walls and high performance ceiling tiles were used to improve the acoustics of the room. Wall-mounted indirect light fixtures provide higher quality diffused light. We also incorporated in-wall boxes to manage our power, data and A/V cabling behind the flat screen. These components work together to facilitate a better experience and enhance communication between the physician and patient.

Were there special challenges?

TOMAS: The pharmacy had to be accelerated to ensure licensing was obtained before the clinic operations started their training process. Certain areas of the project were still in the rough-in stages while the pharmacy was in the finishing stages. Because of the smaller footprint of the entire project, this proved to be challenging.

MURASHIGE: Onsite storage limitations provided for challenging coordination of all items from construction material to owner's specialty equipment. Working in an occupied building meant limited working hours, resulting in weekend/evening shifts.

TOMAS: Other tenants in the building also provide healthcare services to the Kauai public. Weekly meetings with tenants were held to give them lookaheads so their healthcare services were not impacted.

How did your three-member building team work out?

LEE: We worked really well as a team. **MURASHIGE:** From Shioi Construction Inc.'s perspective, I think the team worked well in responding to the changes/challenges.

TOMAS: I think this relationship worked out great. Collaborative thinking in lieu of linear thinking was embraced by all.

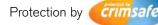
Your choice for quality window systems, doors & building products.





LOUVERS WINDOWS

- Not Your Typical Jalousie Louvers from the I960's
- Maximize & Manage Natural Airflow Quality
- Superior Weather-Tight
 Performance
- Available in Aluminum
 or Easy Care Vinyl Frames
- 4" & 6" Louvers in Aluminum, Glass, Vinyl or Wood Blades



Crimsafe...Hinged & Sliding Doors, Window and Patio Enclosures 24/7 Security, Energy Savings & Hurricane Protection

www.rmasalesco.com | 99-134 Waiua Way | 808.487.9041

COLLABORATION: General Contractors & Architects

What was the best example of your teamwork on this project?

MURASHIGE: Breaking down traditional hierarchy of communication (RFI's to GC, GC to consultant and back down the chain)—i.e., being able to directly communicate with Next Design personnel, their consultants—worked well in expediting design/construction issues as they arose. Next Design's hands-on approach to owner-furnished, contractorinstalled items was instrumental in the timely completion of the project.

TOMAS: Direct communication between Next Design and Kaiser, and Hawaiian Dredging and Shioi and its subcontractors and vendors. needed. Most of our meetings were via Webex since we had participants from Kauai, Oahu, Maui, Hawaii and sometimes the Mainland.

TOMAS: Weekly onsite reviews by Kaiser Inspection Services were conducted ensuring Kaiser standards were being met.

What, in your opinion, is the project's standout feature?

TOMAS: The new telehealth capabilities makes this project unique, and allows Kaiser members to be examined by a physician on a different island in real time.

LEE: The telemedicine systems prob-

ably make the Lihue Clinic exam rooms the most advanced in the state.

When the clinic wrapped, what was Kaiser's reaction?

LEE: When the client tells you they couldn't have pulled off the project without you, you know you've done your job well.

Hawaiian Dredging and Next Design have collaborated on Kaiser projects in the past. Any other Kaiser projects in the works?

LEE: As Next Design and Hawaiian Dredging are both in Kaiser Permanente's Preferred Providers Program, we will continue to be teamed up together to deliver highly successful projects. We are wrapping up a couple



HAWAIIAN DREDGING CONSTRUCTION CO. INC.

Kaiser Clinic Project Checklist:

- Demolish existing partitions and ceiling
- Abatement
- Sawcut existing slab for new utilities tie-in
- Install new fan coils
- Underlay flooring
- Provide new flooring moisture mitigation system
- Hand-cut flooring design onsite
- Install new security system, nurse call and paging system

of projects at the Kaiser Permanente Honolulu Clinic and may be working with them on a project at one of Kaiser's Maui clinics.

TOMAS: We are continuing our successful relationship with Kaiser as we are currently involved with several projects coming up on Oahu and Maui.

Besides each other, who would you like to single out for their contribution to the success of this project?

MURASHIGE: As Shioi's PM for the project, I would like to extend a warm mahalo to our subcontractors for their perseverance, trust and devotion in meeting the ever-changing needs and challenges faced on a complex "little" renovation.

LEE: Our Kaiser Permanente project manager, Ronald Maeda, and his internal National Facilities Services team, and his project team leaders ranging from the leadership, planning and IT team. We (also) rely on our MEP consultants to work closely with us to ensure that we meet our goals and schedules. Without the efforts of AMEL Technologies (mechanical) and Albert Chong Associates (electrical), the project would have been an even greater challenge.

TOMAS: Kaiser's leadership—Ron Maeda and his team—played a pivotal role in the overall success and communication of our team. As this is the first clinic facility for Kaiser on the island of Kauai, Hawaiian Dredging is privileged to have been a part of this historic milestone not only for Kaiser, but for the entire community of Kauai as well.



Open lab and nursing areas

How did you coordinate construction with Kaiser Permanente Hawaii?

LEE: We used our weekly OAC meetings to quickly run down the key agenda items. Those items that required greater discussion were quickly tabled and scheduled for follow-up meetings as

Holding On to Sub-Bids

BY SCOTT BATTERMAN

A awaii law limits the types of work that can be done by a general contractor. Under Okada Trucking v. Board of Water Supply, 97 Hawaii 450 (2002), general contractors must retain subcontractors for all work not automatically included in their A (engineering) or B (general building) license unless they also have the appropriate C (specialty) license.

A general contractor rushing to put together a bid may be taking sub-bids from many potential subcontractors, at the last minute. However informal the process may be, the general contractors relies on those bids being honored, if it is awarded the contract. Although the Hawaii courts have not ruled on the issue, courts in many other states provide some comfort to general contractors by adopting a rule that subcontractors have to honor their bid, at least for a reasonable period of time, because they know that the general contractor is relying on it. This is known as the "doctrine of promissory estoppel."

However, a general contractor can lose the benefit of this rule—and lose a beneficial low bid—if it fails to properly accept the sub-bid. For example:

Bid-Shopping: If the general contractor uses the lowest sub-bid as a basis for negotiating lower bids from other subcontractors, a court may rule that this means that the general contractor did not, in fact, rely on the original low subcontractor's bid.

Bid-Chopping: if the general contractor attempts to induce a bidder to lower its bid by threatening to go with another subcontractor or otherwise pressuring him or her for a lower price, this can also lead a court to dismiss a general contractor's claim of reasonable reliance.

In addition, the sub-bid is considered to be an "offer" under contract law. To form a contract, the offer has to be accepted. An attempt to obtain a lower price could be deemed a counter-offer to the subcontractor, and a counter-offer is legally a rejection of the offer contained in the sub-bid. An offer, once rejected, does not need to be honored.

Making a Non-Conforming Acceptance

An offer needs to be accepted according to its terms. This also applies to sub-bids. If a general contractor includes in its proposed written subcontract terms that are different, unusual or unreasonable, this may again be considered a counter-offer, and hence a rejection. In public works projects, this has been known to happen when the general contractor uses a form that has significantly different terms from those in the standard form used by the government or attached to the government's bid solicitation.

Other instances include cases where the written subcontract agreement required the subcontractor to carry significantly more liability insurance than was typical, or used a schedule that was accelerated beyond the schedule in the prime contract.

If you are a general contractor who has just been awarded a contract, you need to carefully weigh the benefits of securing a lower bid with the possible detriment of losing the low bid you have in hand. Any approach to the subcontractor will need to be carefully worded, so as not to constitute a counter-offer.

You may also want to provide a form of subcontract to potential sub-bidders, particularly if you have not actually contracted with them before.

If they are aware of what your standard terms are, or of any special terms that you intend to use with respect to a specific project, they will not be in a position to argue that these terms are so unusual or unexpected that they should be permitted to withdraw their bid.

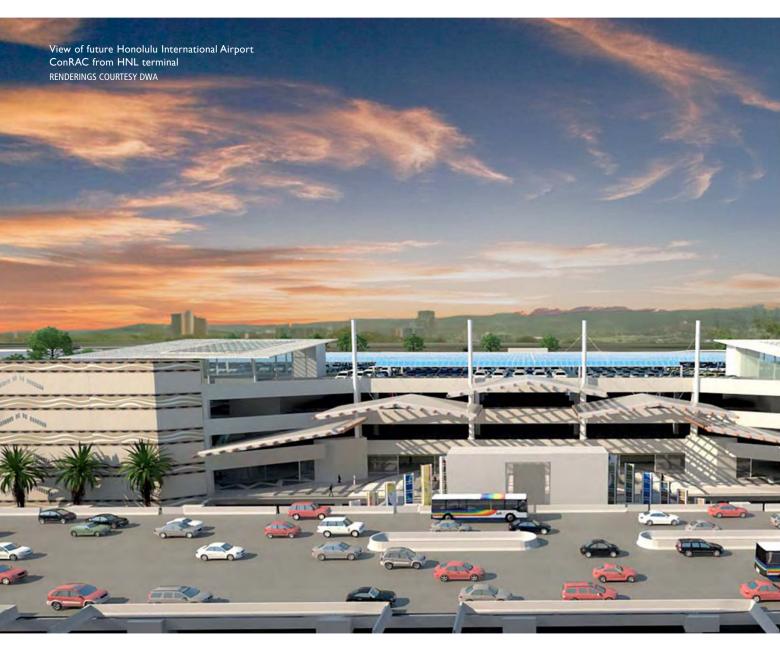
Scott Batterman is an active trial attorney with the Clay Chapman Iwamura Pulice & Nervell firm specializing in construction litigation, contract preparation and project arbitration and mediation. Connect with him at sib@ paclawteam.com or 808-535-8400.





A Peek at Hawaii's New ConRACCS

BY BRETT ALEXANDER-ESTES



ConRAC—it sounds like an action hero or maybe some kind of device. In fact, a Consolidated Rental Car facility is a little of both. Like a superhero, these giant buildings break up airport traffic by stacking distant rental car lots in one location. Like a device, these multi-story structures precisely calibrate the flow of people, vehicles, fuel and recycled materials.

Hawaii's two new ConRAC facilities—one at Kahului Airport (OGG) on Maui and one at Honolulu International Airport (HNL)—are both breaking ground soon and are expected to substantially reduce Hawaii airport traffic. Both are



designed by Wesley Wong, Demattei Wong Architecture (DWA) chairman and principal. DWA, headquartered in Texas, is among the most sought-after



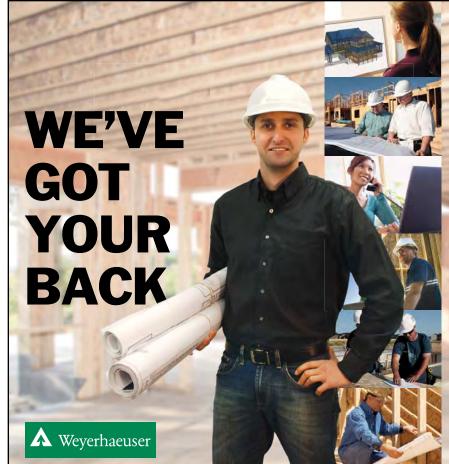
Wesley Wong

ConRAC designers in the U.S. "In

2015, we had active projects at 10 to 12 airports," Wong says.

Wong says that while DWA designs these structures to enhance customer experience at destination gateways, "we also design the facilities to accommodate the tenants—the rental car companies."

To that end, DWA strives to improve both the efficiency of the tenants' operations as well as the



A solid reputation is hard to build and easy to lose. Backed by the industry's best on-site service, technical support, training, and software tools, Trus Joist® engineered wood products help you improve customer satisfaction and solve problems before they start. If problems do come up, you have access to the largest, most experienced support team in the industry to solve them quickly. Start building your reputation today with Trus Joist.



BUILDING SUPPORT"



buildings' environmental sustainability.

Both HNL and OGG facilities will feature five main components: a customer service building, a ready/return area, a quick turnaround area, and vehicle staging and storage areas.

Wong says DWA's \$380 million Tampa facility currently under construction is similar to OGG (\$350 million) and HNL (\$330 million): "Same opera-

tional model. We developed the idea of a multi-level quick turnaround area to correspond with each of the ready/ return levels, creating the most operationally efficient model for the rental car companies."

Like many ConRACs, both OGG and HNL will be approximately 60 percent concrete—precast, cast-inplace or hybrid. OGG has four levels,



The future Honolulu International Airport ConRAC features an open-air plaza with outrigger canoe-shaped beams overhead.

is approximately 1.9 million square feet and will offer 1,817 parking stalls (895 staging positions and approximately 1,200 storage positions). HNL has five levels, is approximately 1.7 million square feet, and will offer 2,279 ready/return stalls and 1,266 staging/storage spaces.

Wong says sustainability is a feature of all DWA projects, whether a facility

is aiming for LEED or not. Honolulu International and Kahului—which are both aiming for LEED Silver—include sustainable features like water reclamation: "Because the HNL and OGG facilities will wash numerous cars, sometimes six cars per hour, the facility uses a lot of water," he says. "We designed these ConRACs so that the water used gets recycled for irrigation,

Best Lawyers

HIGHLY REGARDED for EXCELLENCE in CONSTRUCTION LAW & DISPUTE RESOLUTION

We offer more than sound legal advice. <u>We offer a partnership that is responsive.</u>

- Contract Drafting and Legal Review
- Prosecution and Defense of Construction Claims
- Non-Payment Issues, Mechanics' Liens & Bond Claims





Our principals Gerald Clay and Scott Batterman contributed with Karen Holma and John Manaut to Hawaii Construction Law & Mechanics Liens and with Fletcher Knebel on Before You Sue

Clay Chapman Iwamura Pulice & Nervell Attorneys at Law (808) 535-8400 | www.paclawteam.com





Hawaii Builds With Wood

WOOD continues to Grow, as the LEADING building material for Home construction in Hawaii.

THE FACTS

- Construction continues to be a steady feeder of new jobs in Hawaii. In the first three quarters of 2015, 1,100 construction jobs were added, a 3.5 percent rise from 2014. *Hawaii Department of Business, Economic Development and Tourism
- From January to October 2015, residential permitting rose 120 percent compared to the same time period in 2014. *National Association of Home Builders, U.S. Census Bureau
- Demand for North American Engineered Wood Products (EWP) is expected to jump by 20 to 25 percent through 2019. *APA – The Engineered Wood Association

*LifeCycle Assessment of Borate-Treated Interior Framing **Study of Hawaii Based Retailers in 2012, HWT

HLPA



For the MOST accurate information about building with Wood PLEASE visit us at... www.HawaiiLumber.com • 541-WOOD (9663)



The future Kahului ConRAC features a tram and innovative lighting.

car wash re-use and other uses. HNL and OGG water use will be 85 to 90 percent reclaimed."

HNL and OGG are functionally similar, but visually distinct: OGG's low-rise plantation-era design is enhanced by the site's topography, which hides the building's lower two floors, while HNL sports an elevated modern profile. OGG also features a tram that replaces shuttle service.

Wong says his firm's ConRACs incorporate the culture of their host sites, and in Hawaii reflect local history, legends and terrain.

"Hawaii has a lot of stories," he says. At HNL, "we include the elements of these stories—the ocean, land, mountains and sky ... and integrated them into the design of the facility."

HNL's open-air customer service plaza, for example, will be covered by a series of wood-structured beams "with a canoe profile, with glass between the wood beams," he says. These symbolize "people transitioning from the ocean to the land."

Wong says hundreds of workers will likely be needed to construct Hawaii's new ConRACs. Chad McDonald, vice president of Mitsunaga & Associates Inc. is the civil engineer at both OGG and HNL, and the intent is to have Johnson Controls Inc. provide and install all electrical and photovoltaic infrastructure on both projects.



Entry to the future Kahului ConRAC

Sustainable Structures

Both HNL and OGG will aim for LEED Silver certification through:

- Efficient lighting and HVAC systems.
- Onsite storm water management.
- Construction waste management focused on recycling.
- Extensive use of low-emitting materials, adhesives, sealants etc.
- Construction material preference is for regional sources, recycled content and sustainably harvested wood.
- Planned solar photovoltaic electrical systems.
- Reduction of heat-island effect through light-colored hardscapes and roofs.
- Open-air ventilation of core structures with the exception of the customer service buildings' car rental lobbies.

IT'S THE LAW DON'T GET CHEATED ON YOUR PROJECT

A Company's Electrical Contractor's License is Not Enough!

Make sure the tradesperson sent to your house or project also has his own Hawaii State Journeyman Electrician's License, and visibly displays it on his or her person at all times on your job site.



State fines of up to \$500 for each violation. Act 28 (SLH 2010), Hawaii Revised Statutes §444-9.5. Work performed by an unlicensed worker may also be rejected by your homeowner's insurance policy. Call our Compliance Department at 841-6169 for more information.



Bright Trends for Bright Spaces

Clients insist on lighting for visual effects along with energy efficiency and cost savings

BY CATHY CRUZ-GEORGE

Gone are the days when homeowners installed a ceiling light in the family room and called it a day. An increasing number of homeowners now hire lighting consultants to brighten up the home with a variety of energy-efficient fixtures.

Good lighting is a nobrainer. "But what's really important is what you light, instead of just putting enough light in a space to (be able to) see," says Robert Billingsley, energy consultant and senior lighting designer of Designing With Light. "Good lighting affects what you do, what you see and how you feel." Rick Benedict, owner of

outdoor-lighting specialist Beachside

Lighting,

"Today (in

lights), it is

less about

seeing the

best effect

fixture, while getting the

agrees.

outdoor



Rick Benedict

from the fixture," he says. Billingsley, Benedict and other specialists in Hawaii identify the top three trends for residential lights.

TREND NO.1

Use layers and ornaments to create visual effects and maintain eye health.

A well-lit home uses multiple layers of brightness such as down lighting, recessed lights, art lighting and decorative sconces, chandeliers and pendants.

Different rooms demand certain rules. Kids rooms tend to have artwork and posters, so accentuating the walls with light is a good idea. In the living room, recessed lights should showcase artwork, special plant arrangements, and architectural columns, slopes and coffered ceilings.

The kitchen—a place for work and interaction should have adjustable, dimmable lights aimed at the cabinets and counter, creating a rhythm of lights that are 30 inches apart. "A four-inch downlight is now a trend, especially when it's adjustable," Billingsley says.

Light dimmers help eye health and create a nice visual effect. Adjustable, preprogrammed dimmers are recommended in every room minus the garage and laundry

area. "All lights should be dimmable even in the closet," says Jenn Johnson, interior designer at



Jenn Johnson

new firm iD hawaii. Another trend for homeowners is to use ornamental fixtures. Chandeliers and pendants create visual effects in stairwells and entries. Even a basic bathroom can be dressed up by simply mounting pendants to both sides of a mirror. Another way to jazz up a bathroom is to mount sconces directly to the mirror, 3 1/2 inches apart.

At Honolulu retailer Lighting Concepts and Design, glass-blown pendants from Italy and hand-forged chandeliers from Vermont are sought-after items. The family-owned store and 2,000-square-foot showroom boasts light fixtures from all over the world.



Oversized ceiling fans with lights still are common in Hawaii homes. But Tom Ogawa of Lighting Concepts and Design warns the light-fan combination



can create "strobing," a pulsating effect from the spinning blades' shadows on walls and floors. For that reason,

most designers are not fond of fan ceiling-light combos. "It's an unsettling vibe that doesn't give off a highend look," Johnson says. Instead, she suggests using

and adding floor and table lamps to the room. "It's better to have that ambient, indirect light," Johnson says.

TREND NO. 2

Switch to energy-efficient lighting to save money and the Earth.

Approximately 80 percent of a basic bulb uses heat and energy, but only 20 percent of that energy creates light.



Outdoor lighting is popular throughout the Islands.

Not exactly Earth-friendly. The good news? LED

lights or "light-emitting diodes" are up to seven times more efficient and last 25 times longer than conventional bulbs. Better news? LED blubs can replace most halogen and incandescent bulbs sold on the market.

Since LEDs went mainstream less than 10 years ago, prices have dropped significantly—from three digits to as low as single digits per bulb. So much, that the U.S. Department of Energy predicts that by the year 2030, LED lights will comprise 75 percent of all lighting sales.

LED technology and options continue to improve. On the LED market today are color-changing lights, recessed lights for dramatic effects, rope lights for outdoor use, tapes and strips for even lighting, and smart LED bulbs with Internet connectivity.

"Even within LED recessed lights, we have



OUTDOOR LIGHTING TIPS

Warm weather, ocean views and tropical plants provide the perfect canvas for outdoor lighting in Hawaii. But the trio can wreak havoc. Salt water corrodes lamp fixtures. Excessive sunlight melts parts. And overgrown foliage traps heat from bulbs.

Beachside Lighting, a Kailua-based outdoor lighting specialist since 1994, works with developers, designers and homeowners to extend the life of lights. In addition to producing lighting fixtures in Kapaa Quarry Industrial Park, the company supplies resorts and private homes in Hawaii, Florida and the Caribbean.

Rick Benedict, president of Beachside Lighting, offers tips for outdoor lighting:

• GROUND. When installing and maintaining outdoor lights in Hawaii, the biggest challenges stem from the soil and the rate of plant growth. Many fixtures typically are

installed near the ocean where there is sandy soil; but much of the islands comprise clay and rocky-type soils that require a post-hole digger or a hammer drill to install the anchoring piece (ground spike). Because foliage in Hawaii grows quickly, the plants—not the fixtures—cause maintenance challenges. Plants grow over fixtures, trapping the light low and creating hot spots in the process. Keeping foliage trimmed will help curb the problem.

• MATERIALS. We strongly discourage aluminum; it corrodes fixtures and turns to powder in this salt-air environment. Brass and copper are the best materials for landscape lighting fixtures. We don't recommend stainless steel because stainless can still stain—it just stains less than regular steel and can be an eyesore instead of a nice, dull, silver finish. We do recommend stainless-steel fasteners for the main fixture, because of their rigidity and strength.



Visual effects lend a special ambience to the property.

We nickel-plate our brass and copper, which gives us a very corrosion-resistant stainless appearance, without having to worry about rust.

• HARD WATER. After a year or so, the hardness of irrigation water in Hawaii creates "frosting" over glass (upright) glass. This frosting causes up to 30 percent light loss. We've designed a special glass on our upright fixtures to discourage dirt or debris within the bezel. It allows homeowners to scrape off calcification on the lens to make the glass clear again.

• LIGHT EFFECTS. Lamps with higher color temperatures bring out the visual effects of greens in tropical foliage. While a 4,000K lamp (cool, neutral white) brings out the green, homeowners want the color temperature to match lights from the home or building. Often, color temperatures from exterior wall-mounted fixtures are in the 2,700K to 3,000K range (2,700 is warm white, like an old-fashioned incandescent lamp. And 3,000K is warm white, the color of halogen.) Because LED lamps replace old halogen lights, Beachside Lighting standardizes 3,000K as a color temperature. This creates an even appearance when adding landscape lighting to wall-mounted fixtures.

• HOME SECURITY. Landscape lighting can have security benefits. Instead of simply putting a Par fixture on the corner of the house and blasting the yard with light, landscape lighting can include downlighting from trees or from the home using louvers and shields to reduce glare. The result is a well-lit yard from above, compared to a lateral fixture illuminating everything in sight. If homeowners use motion sensors with lights, we suggest they tie in to a direct 120V, or to the 12V landscape lighting line. Depending on the input voltage, two types of sensors can do this.



LIGHTING BASICS

- 2700K Old-fashioned incandescent lamp, also known as "warm white."
- 3000K Brighter lamp the color of halogen, but still referred to as "warm white."
- 4000K Cooler lamp akin to the color of most office fluorescent lamps, also known as "neutral white."
- 5000K White light toward blue appearance, often known as "cool white."
- -Rick Benedict, Beachside Lighting

different colors, different beam spreads and different intensity," says Ogawa about his store and showroom.

Lately, retrofitting a home with LED lights

of sa b r bri ho Qg Jer Be co yea in t t s f L

has been on almost every homeowner's hit list. But Billingsley advises buyers to choose LED bulbs with caution—especially when sleep is at risk. Here's why: The most efficient, basic color of LED is a cool.

blue hue. "Blue light retards the natural release of the sleep hormone melatonin, and sleep rhythm is disrupted," he says. He suggests using warmer lamp color temperatures (3,000K instead of the cooler 4,000K) and "sacrifice a little energy for a better environment."

TREND NO. 3

Consult a specialist to brighten up the home.

Lighting experts and home designers—Tom Ogawa, Robert Billingsley, Jenn Johnson and Rick Benedict—have one thing in common. Over the past few years, they've been partnering with more developers

than ever to create well-lit spaces. It's a testament to the growing trend of hiring consultants.

The award-winning firm Designing With Light conducts global energy studies and



(Clockwise) Indoor lighting designs accent the key features of a room.

has lit up hundreds of hotels, commercial areas and private homes both locally and internationally. Outdoor-lighting specialist Beachside Lighting supplies condos and resorts in the Caribbean, Florida and Hawaii; its roster lists Four Seasons, Hyatt, St. Regis, Prince Hotels and Turtle Bay Resort.

Johnson, of iD hawaii, is a founder of Pacific Home and Pacific Studio. Her projects comprise dozens of oceanfront homes, commercial spaces and condos in Hawaii. Even retailers such as Lighting Concepts and Design have been saturated with requests. The store has supplied ornamental fixtures for several homeowners in the Symphony and Waiea high-rises in Kakaako.

As long as there's a building boom in Hawaii, lighting specialists will be in demand. "While everyone doesn't understand the rules of basic lighting design, the attempts to use lights more creatively are creeping into the general psyche," Billingsley says.

ASSE Hawaii to Host Safety Conference

After 36-year-old construction worker Joseph Sabbatino plunged 800 feet from a Los Angeles jobsite to his death last month, a flurry of posturing and fingerpointing was unleashed in the media.

Media reports stated that the victim might not have been in compliance with safety rules. The employer suggested his fall from the 53rd floor was not work-related because Sabbatino's job assignment limited his electrical work to lower levels of the hotel under construction. Attorneys said the death may have been a suicide rather than an accident.

OSHA officials continued its investigation amid the nation's growing number of preventable construction deaths. Fatalities caused by falls from elevation continue to be a leading cause of death for construction workers, accounting for 337 of 874 construction fatalities recorded in the U.S. during 2014.

In its efforts to raise awareness and reverse the trend, OSHA's National Fall Prevention Stand-Down next month will coincide with the Governor's 14th Biennial Pacific Rim Safety & Health Conference, Hawaii's highly regarded workplace safety event that draws international attention.

Presented by the Hawaii Chapter of

the American Society of Safety Engineers, the conference at the Sheraton Waikiki Hotel on May 2-4 will offer opportunities to better understand workplace safety, to network, and to share experiences among fellow professionals and government regulators.

"For over 28 years, the conference has been one of the premier safety and health professional development events in the country," says Tristan Aldeguer, manager of health safety and environmen-



Tristan Aldeguer

tal training at Hawaiian Dredging Construction Co. Inc. "The main purpose of this conference is to provide employers with information and tools necessary to carry out their responsibility for worker safety and

health, receive tips to reduce business costs, and to learn what resources are available within the community."

The ASSE Hawaii Chapter has scheduled approximately 50 speakers from nations throughout the world. Highlighting National Safety Week



2016, the conference will feature 75 exhibitors showcasing tools and information to enhance workplace safety.

ASSE, which began in 1911, is an association of occupational safety, health and environmental professionals, with more than 37,000 members worldwide. The local ASSE chapter, founded in 1951, has 220 safety professionals in Hawaii.

Disability Access Confab Set May 3

The Disability Access Conference on May 3 at the Ala Moana Hotel offers contractors, designers and developers a chance to share ideas and promote exemplary designs that create social and physical environments which successfully integrate imaginative solutions and diverse user needs.

The conference, which will be

from 8:30 a.m. to 4:30 p.m., is sponsored by the state of Hawaii's Disability and Communication Access Board and the Pacific ADA Center. This year's conference includes sessions on topics such as providing accessible guestrooms designed for those needing mobility access as well as guestrooms for those needing communication features. A session also is planned on requirements for providing access to swimming pools and spas.

Space is limited to the first 250 who register. For more information on the conference, contact Mona Higa at mona.higa@doh.hawaii.gov or Laurie Palenske at laurie.palenske@doh.hawaii.gov or call (808) 586-8121.

RMA Sales Takes BIA Stew Title

A team from RMA Sales, with its "Bull Tale Stew," captured first place in the Building Industry Association of Hawaii's Legislative Night Membership Meeting & Annual Stew Challenge on Feb. 23 at Café Julia at the YWCA Downtown.

Placing second in the BIA-Hawaii's 16-team Stew Challenge was Safety Systems & Signs Hawaii with "Ono Venison Stew" while D.R. Horton, Schuler Division's "Galactic Stew" was third.

The People's Choice winner was SSFM International with "Local Stew," and the Best Theme was the "Grandma's Lunch Wagon Shrimp Curry Stew" from the Hawaii Gas team.



The 2016 Stew Challenge champions from RMA Sales

Judges included Michael Kealoha, executive chef at Highway Inn Kakaako; Ronnie Nasuti, executive chef at

Tiki's Grill & Bar, and Jason Peel, a culinary arts instructor at Kapiolani Community College.

G70 Opens Jakarta Office

Group 70 International Inc. opened a new office in Jakarta, Indonesia, in February and will serve its expanding international market as PT Group Seventy Asia. The new architectural firm is a partnership between G70 and PT. Sentul City Tbk., an Indonesiabased property development and management company.

"This is an incredibly exciting year for Group 70 as we celebrate our 45th anniversary and embark on a strategic move into the international marketplace," says G70 President Charles Kaneshiro. "The opening of the Jakarta office allows us to better



From left: CFO Widi Widananto and CEO Keith Steven Muljadi of PT. Sentul City Tbk., and G70 Chairman Francis Oda and President Charles Kaneshiro

service our growing Asian clientele, while remaining steadfast in our commitment to local projects."

PT Group Seventy Asia currently employs a staff of six, led by Tobin Halim, G70 architect and Jakarta office director of operations, and G70 Chairman Francis Oda.

"We are collaborating with PT. Sentul City Tbk. on several large urban planning projects, so the partnership was a natural next step in the business relationship," says Halim.

Originally from Indonesia, Halim has been with G70 since 1995.

Halim has more than two decades of experience using computer-based planning and architectural design, and has designed various projects using AutoCAD and REVIT. Halim earned his bachelor's degree in architecture from Jakarta's Tarumanagara University, a master's degree in computer science from Hawaii Pacific University and a master's in business administration from Chaminade University.



Federal, state and city officials break ground at the West Loch Station in Waipahu.

Work Begins on West Loch Rail Station

A groundbreaking ceremony for the first station of Oahu's rail transit project was held in Waipahu in February.

The West Loch station will be at the

intersection of Farrington Highway and Leoku Street. It is part of the Farrington Highway group, along with the Waipahu Transit and Leeward Community College stations, being built by Hawaiian Dredging Construction Co. Inc.

The first three stations are scheduled for completion in 2018.

Tsubaki Tower Construction Begins

Construction has begun on Tsubaki Tower, a \$150 million luxury hotel being developed by PHR Ken Micronesia in the tourist district of Tumon.

Ken Corp. held a ceremonial groundbreaking on March 8 for the 340-room Tsubaki Tower, overlooking Tumon Bay. The five-star facility will rise on a 96,000-square-meter site next to Hotel Nikko Guam, which is also owned by Ken Corp.

The project is expected to be completed in October 2018 with a grand opening scheduled for 2019, according to Tomoyuki Haneda, PHR Ken Micronesia director of planning and development.

With the lobby facing the ocean, Tsubaki Tower is designed with an Construction is underway on Guam's \$150 million Tsubaki Tower being developed by PHR Ken Micronesia. PHOTO BY MAR-VIC CAGURANGAN

open-air amphitheater that can accommodate various types of functions. Company executives say this feature is intended to attract the MICE (meetings, incentives, conference, exhibitions) segment of the market.

Ken Corp. is among the developers recently approved to receive tax incentives under the Guam Economic Development Authority's special qualifying certificate program aimed at building 1,600 new hotel rooms on Guam.

Ken Corp. currently owns Hotel Nikko Guam, Hyatt Regency Guam, Pacific Islands Club Guam, Hilton Guam Resort & Spa and Sheraton Laguna Guam Resort. 2014 with a capacity to generate 12 MW of electricity—enough to power more than 2,400 homes. At 5 MW, Kalaeloa Solar Two is among the largest solar installations in Hawaii. Completed in 2015 by Sunetric, this photovoltaic project has enough electric capacity to power more than 1,500 homes.

Large retailers in Hawaii have installed PV systems, including Macy's, Target and Walmart. Safeway has installed one of the largest corporate PV systems in the state with 332 kW of solar capacity at their Ewa location.

In February the Hyatt Regency Maui Resort and Spa held a "Power Up Dedication" to celebrate the installation of one of the largest rooftop photovoltaic systems in Hawaii. This system of solar panels produces more than 6 percent of the resort's annual electricity needs, which is equal to supplying grid electricity to 158 homes.

Is Green Smart?

Bendon says it is not necessarily completely new technologies and practices that define green, or "smart" building, but rather the reduced costs for those things that make them more accessible to everyone. He cites reduced costs for LED lighting, high-efficiency air conditioning, solar energy systems and building controls.

"Hawaii residents can save a tremendous amount of money and reduce harmful impacts on the environment by orienting and designing



homes to capture sun and heat for energy, passively cool indoor air, and collect and re-use water for domestic and garden use," says Michael Kramer managing partner and

Michael Kramer

director of social research for Natural Investments. "This is pivotal to meet the state's commitment to energy self-reliance and food security while minimizing waste."

David Gorman, RevoluSun Smart Home director of sales and business development, says green building and self-sustainability are very important for Hawaii because of its isolated location.

"We are fortunate to enjoy a temperate and energy-rich environment," Gorman says. "It just makes sense to invite the natural world into our homes and commercial spaces. Leveraging natural resources minimizes a building's long-term operating costs while making it healthier and more comfortable. Not only should we harness these resources, but Hawaii is in a position to be a leader in renewable energy and green building."

The Next Innovation

"Continued accessibility and reduced costs will be big drivers in the movement," Bendon says. "The majority of the energy and water conservation products are technologically the best and they will all continue to

Elements of the Smart Home

- Climate-specific design
- Passive cooling
- Energy-efficient construction
- Energy-efficient appliances and lighting
- Solar water heating system
- Small solar electric system
- Low-flow showerheads and faucets
- FSC certified wood products
- 50-year siding
- 40-year, recyclable metal roof
- Locally manufactured materials
- Low VOC paints, adhesives and sealants
- Nontoxic finishes on flooring and cabinetry
- Formaldehyde-free insulation
- Formaldehyde-free cabinets
- Efficient ventilation
- Windows sized and placed for maximum cross ventilation as well as "thermosiphoning," the exhaustion of high hot air and intake of low cool air.
- Strategically located windows reduce reliance on electric lighting.

SOURCE: WORKSHOP-HI

be more and more affordable. There has been a recent push for more lifecycle cost analyses for products. This will make it easier for consumers to identify how 'green' a particular product is from manufacturing through disposal."

Kramer says he expects Hawaii will get greener with locally manufactured non-toxic solar panels, living roofs with vegetable gardens, micro-grid distributed renewable energy across TMKs in subdivisions and residential on-site biological wastewater treatment, through digesters, small constructed wetlands and/or composting toilets.

"The continued integration of photovoltaic technologies into existing building materials will enable structures that self generate and net zero," Gorman says. "We will also see development in products for water conservation and quality and

waste management. Water, more vital than energy,

> will be a resource with increasing scarcity and value as world populations continue to grow and weather patterns create unplanned, and sometimes extended, shortages."

Murphy says Hawaii will see micro-grid systems pop up around the Islands. "Many areas on the Islands are too costly to have utility lines run, so we [Blue Planet Energy Systems] will build a 100 percent renewable micro grid to power 200 homes," he says. "The utilities will become more favorable toward storage in the near future. When this occurs we will see a more stable grid offering cleaner power to people in downtown condos and apartments. Renewable energy was once unobtainable for them. It will soon be available."

Council of Executives Tackles Issues, Shares Views







David Banks





Matt Bittick





D<u>ean Hi</u>rabayashi



John Thielst

Stephen Kane



Eric Nelson David Smith

• John Thielst, managing principal and vice president of Coffman Engineers.



Spencer Joins AIA Honolulu

Abigail Spencer has joined the American Institute of Architects (AIA) Honolulu chapter as executive vice president. Most recently, she served

Abigail Spencer

as the director of marketing and outreach for the American Public Gardens Association in Pennsylvania.

Previously she served as the director of annual giving at the Shore Medical Center Foundation and marketing officer at Cape Bank, both in New Jersey.

Spencer received a master of business administration from The Richard Stockton College of New Jersey and a bachelor's degree from James Madison University in Virginia.

he 10-member Executive Network Council of Honolulu, formed in 2014 by Island business leaders, states its continuing goal of establishing "a leadership forum to discuss and share mutual goals, experiences, expertise, objectives and challenges within a trusted and confidential setting."

Rod McLaughlin, vice president of project development at dck worldwide and one of the founders of the ENC of Honolulu, says "one of the greatest assets our group achieves is a diverse range of advice and commentary in addressing and dealing with a huge array of leadership challenges and issues. Each member has a 'thirst' to better themselves individually as well as cultivate leadership growth within the people they lead.

"Being able to hear all views helps us to make more resourceful and better-quality decisions in our business and personal lives."

The group meets the first Thursday of each month. The members of the

ENC of Honolulu, in addition to McLaughlin, include:

- David Banks, partner with Cades Schutte LLP.
- Matt Bittick, founder of commercial real estate firm Bishop Street Commercial.
- Geoffrey Graf, a vice president at Royal Lahaina Development Group LLC.
- Dean Hirabayashi, a senior vice president at American Savings Bank, commercial real estate.
- Stephen Kane, Pacific region director with CACI International's Enterprise Technologies and Services Business Group.
- Eamonn P. Kinsella, senior executive-in-charge for the Bureau Veritas North America-HSE Honolulu.
- Eric Nelson, principal at RIM Architects.
- David "Tony" Smith, an executive vice president of Rider Levett Bucknall.

NEW PRODUCTS



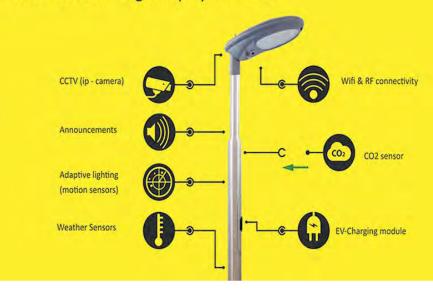
LightMotion

The electric vehicle-charging smart pole, LightMotion, is an innovative allin-one streetlight. Designed to create an open source hub that provides energysaving lighting designs, LightMotion incorporates a video surveillance camera, Wi-Fi, weather, motion and CO2 sensors, parking payment solution and intelligent LED street lighting.

HVAC Mini-meter

The Fluke 902 FC True-rms HVAC Clamp Meter eliminates bulky tools and enables on-site HVAC reporting and collaborating. The compact, rugged dual-rated CAT III, 600/CAT IV, 300V-meter performs essential HVAC systems measurements—microamps for testing pilot light sensors, resistance up to 60 kilohms, AC current, AC/DC voltage, capacitance and contact temperature—and transmits data to a smartphone or tablet. www.en-us.fluke.com

LIGHTMOTION Plug and play modules



These elements are combined to fit into any modern light pole. The module is available as a complete streetlight or a separate installable unit for existing street lighting poles. www.lightwell.eu



New Color Choices

CertainTeed's Landmark Solaris reflective shingles are now available locally in four new colors: Aged Cedar, Crystal Grey (Energy Star-rated), Dusky Clay and Sunset Shake. The colors are Cool Roof Rating Council (CRRC) rated. Shingles in the new colors may qualify for credits/points in LEED, NAHB and other green programs. Energy Star-rated shingles may qualify homeowners for a federal tax credit under the Protecting Americans from Tax Hikes Act of 2015. www.certainteed.com WWW.PITBULLSCREENERS.COM

Propane Power

Lake Erie Portable Screeners has unveiled the Pitbull 2300P Propane Screening Plant. The machine features a Zenith 1.6-liter, 4-cylinder, 48-horsepower propane engine that can be converted to natural gas and delivers maximum efficiency with a wide range of materials, including topsoil, mulch, gravel, stone and asphalt. The screener's low-emission propane components provide an alternative to diesel equipment for contractors, landscapers, energy facilities and municipal workers. www.pitbullscreeners.com

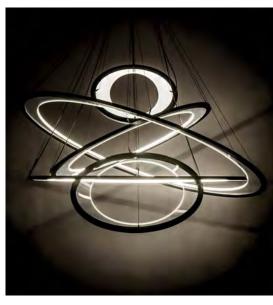
WWW.PITBULLSCREENERS.COM

Neutral Lighting

An LED light's "color" temperature will dramatically affect the appearance of paint, carpeting and furniture. Cyron's model BDL6B1-D01-15 recessed LED indoor light offers CRI 90+ 4000K neutral white lighting. Designed for easy change-out of 5- and 6-inch ceiling can flood lights, the new Cyron LED



light replaces a 100W conventional bulb but uses only 15W of power. The UL- and Energy Star-listed light has an expected life of 32 years, an annual operating cost of \$1.64 and is dimmable down to approximately 10 percent with electronic LED-type dimmers.



Anillo Ellipse

2nd Ave Lighting introduces the Anillo Ellipse 5 Light cascading pendant with adjustable elements of ambient light including five elliptic spectral halos that appear to rotate in space. The new pendant is supported for balance and precision by spacecraft cables. The fixture operates with high-powered LEDs that deliver dimmable illumination, energy savings, minimal maintenance and long life. Custom configurations, sizes, styles and colors are available. www.2ndAve.com **FACES**

ā

ABC Dinner

ben

The Associated Builders and Contractors Hawaii Chapter hosted its 2016 Aloha Dinner for members and guests on March 1 at 3660 On the Rise.

Ben Dernbach, Craig Burton, Marjorie Burton, Tricia Miyashiro, Christopher Cheung





George Hong, Jeff Waiblinger, Harriet Jorgensen, Steve Jorgensen



Rebecca Durham, Jeff Durham, Tennille Wilfur, Jordan Cheung



Michael Lau, Donald Lee

PHOTOS BY BOB HAYES



Stu Transfiguracion, Joseph Ferrara, Naomi Azawa, Asenati Garcia



Penelope and Robert King



Sean Spencer, Lance Kakimoto



Ryan Jenson, Fred Gampong



David Squeri, Jeff Durham, Wes Uemoto, Stephie Rae, Eric Wong



Wayne and Shani Silva, K.C. Cannon, John Doan



Renee Rosehill, Justin Ou, (back) Jonathan Young, Ken Wilson

FACES _



BIA Stew Off

The Building Industry Association of Hawaii held its Legislative Night Membership Meeting & Annual Stew Challenge on Feb. 23 at Café Julia at the YWCA Downtown. The Stew Challenge, which attracted BIA-Hawaii members and guests, featured 16 teams. See the story on page 66 for the winners.

Sheldon Ibara, Lori Kawamura, Anthony Borges, Elizabeth Borges, Troy Simeona



Mike Kealoha, Jason Peel, Ronnie Nasuti



Jada Santos, Evan Fujimoto, Faith Yamaguchi, Renee Alipio



Luella Sufrin, Connie Davis, Patty Sherman



Emily Boirum, Von Ulsa, Rachel Goings



Dean Uchida, Amy Hirano, Amy Salvador, Mike Street, Darin Mar, Glenn Yasui, Mike Barbour



Shawn Moseley, Darryl Demello

CURR 2



Harry Sakaguchi, Audrey Okaneku, Rick Martin, Sharon Shigemoto, Jared Pasalo



Shawn Akana, Kawehi McShane, Lisa Ishikawa, Gina Bedan, Matt Ako

PHOTOS BY HAWKINS BIGGINS



Tracy Kalahiki, Ken Berry, Chanel Hirata, Sara Elsea-Schell, Jennifer Dorman, Karen Berry





Herb Gebhardt, Julie Lee, Peter Eldridge



Dean Asahina, Gene Asahina



D-R-HORTON

Todd Mills, Ryan Gross, Beth Bartholomew-Saunders, Mary Flood, Robyn Titcomb, Jackson Parker, Lee Tokuhara

HCES Banquet

The Hawaii Council of **Engineering Societies concluded** its 2016 Engineers Week with a banquet on Feb. 25 at the Koolau Ballrooms and Conference Center. The HCES, launched in 1965, is an umbrella organization for the engineering groups in Hawaii with 17 member organizations.



Sam Carnaggio, Kainani Kraut, Walt Mitchell, Allyn Tabata, Vianne Tabata, Lyle Tabata

Robert Kroning, Mayor Kurt Caldwell, Brennon Morioka, Chris Takeshige, Les Kempers



David Imanaka, Nicole Nakaoka, Donna Gonzales



PHOTOS BY BOB HAYES



Tim and Stephanie Hiu



Brandon Vejo, Carly Kaneko, Joe Kwan, Eric Arakawa, John Katahira, Jennifer Lim, Dianne Lau, Kapiolani Street



James Mackay, Cherish Ellis







Nate Lopez, George Stewart



Alicia Nakano, Jennifer Little



Lori Lloyd, Alan Lloyd, Bill Leary, Betty Lou Nobriga, Dean Borges, Sandy Borges



Song Choi, Les Kempers

BEST PRACTICES

The Craftsman's Promise: Ensuring Your Team Hits the Bullseye Every Time



BY GARRETT SULLIVAN

A few months ago, a contractor client was complaining about being so overloaded with work his craftsmen were forgetting about the importance of maintaining the quality standards that he had spent so many years priding himself on. He stated that not only did he feel it was hurting his reputation with his long-standing, repeat customers, but also that it was definitely showing up on the bottom line with the profit fade on most jobs as they closed out and rework was required to correct deficient workmanship.

When he probed the employees, they responded with the usual excuses relating to tools, materials, equipment, scheduling and supervisors or fellow workers.

A solution in this situation would be the implementation or upgrade of a Quality Excellence Program. It can be defined as a plan to integrate quality at all levels in an organization to consistently deliver effective quality solutions focusing on adherence to requirements, improving customer satisfaction and continued business development.

To visualize this contractor's situation, consider the archer's bullseye and how the archer aims for the center each time. In order to be a champion and hit the bullseye center every time, one must constantly practice, and this is the same criteria that applies in construction. The site manager should be the person who is always providing guidance as to the quality requirements and expectations at the job site. He, like the archer, should have a critical eye at both the completed work and the work under construction to ensure that it conforms to the project's quality requirements.

Here's how a contractor's bullseye quality ring might appear:

Fourth Outer Ring: Workmanship Not Acceptable

Unapproved methods or specs use while known specification exists or not delivering known scope of work. This demonstrates a clear lack of accountability by the craftsman and probable job cost overruns.

Third Outer Ring: Not Meeting Expectations

An unintended incorrect installation or inadvertent non-specified material installed.

Craftsmen require coaching and a refocused effort. Second Outer Ring: Expectations Met

An adherence to the requirements; specifications are met and installation according to contract drawings. Very good installation; contract requirements achieved and minimal, if any, punch list.

Center Ring: Bullseye, Exceeds Customer Expectations

A higher than required standard or quality installation. In this situation, the customers' expectations have been exceeded and have created a highly probable repeat customer.

While a Quality Excellence Program can be simple or as detailed as the company or contract documents mandate, it must be a constant top-of-mind discussion point at every job site. For many contractors, it can be simple and fit on a single sheet which can be referred to at the job site on a weekly basis. It can be called The Craftsman's Promise and be composed of the following:

The Craftsman's Promise

Employees are accountable for their own workmanship. Everyone must do their part to make sure that we meet the requirements and specifications, as well as building and other applicable codes necessary to deliver a high quality product to our customers. These key promises are vital to quality workmanship.

As a craftsman, I promise to:

• Always perform work according to known specifications, building or other codes.

• Report rework or nonconformance to my lead man, foreman or supervisor.

• Always ask for assistance when I'm unsure of any requirements.

• Use the correct tool or equipment for fabrication or installation and construction.

• Ensure that my credentials are appropriate for performing work that requires specific qualifications.

• Step back and review the completed work as the final step before I walk away.

• Always have the client's and company's best interest in mind while performing quality responsibilities.

Lastly, the Quality Excellence Program should include language which states that any employee who falsifies quality documentation will have their employment terminated and this program will apply to all employees.

As you reflect on your company's quality target, are you hitting the bullseye day in and day out or is it time to sharpen your quality arrows, load up your quiver and spend some time with your team doing quality practice? Those that do take the time will see considerably smaller punch lists, higher morale and an improved bottom line.

Garrett Sullivan is president of Sullivan & Associates, Inc., and advises contractors how to develop a standalone company through his Next Level Business Process. Connect with him at GSullivan@SullivanHi.com, www.SullivanHi.com or 808.478.2564.





Go to HawaiiStars.com

Kama'aina Business **Success Stories:**

Thursday, April 7 @ 9:30 pm



Tuesday, April 12 @ 9:30 pm





Join Kimo and Carole as they present stories of these Kama'aina, who with passion and hard work, created remarkable success stories! Watch how these humble entrepreneurs grew their ideas into thriving businesses that have had an impact on the people of Hawaii! Great Stories! Great People! A Must Watch!



Dennis Sakamoto



Maki Kuroda

CUSTOM PUBLISHING & PRINTING



Don Goo, Robert Payan, Gregg Tong



Former Stars of the Kama'aina Businsess Success Stories





Stanford Carr

Sponsored By:



ingerprin

National Safety STAND-DOWN

TO PREVENT FALLS IN CONSTRUCTION

MAY 2-6, 2016

Stop Falls Stand-Down

- Plan a toolbox talk or other safety activity
- Take a break to talk about how to prevent falls
- Provide training for all workers

For a free and confidential evaluation of your company's safety and health program, contact:



www.osha.gov/StopFallStandDown

#StandDown4Safety (800) 321-OSHA(6742)











