

**County of Hawaii
FY 2023-2024**

**Department of Information Technology
Professional Services**



**DS.1) Computer Engineering
(GIS Mapping/Programming Services)**



Sam O. Hirota, Inc.

ENGINEERS, SURVEYORS, GIS, 3D IMAGING

864 South Beretania Street
Honolulu, Hawaii 96813
808.537-9971
dennishirota@gmail.com
June 30, 2023

June 15, 2023

County of Hawaii
Department of Information Technology
25 Aupuni Street
Hilo, Hawaii 96720

Dear Mr. Robert Ewbank:

Sam O. Hirota, Inc. (SOH) is pleased to respond to the County of Hawaii, Department of Information Technology, Notice to Provide Professional Services, Fiscal Year 2023-24, to provide GIS Mapping/Programming Services to support Department of Information Technology projects.

SOH wishes to be considered for the following category of service:

73) Computer Engineering (GIS Mapping/Programming Services)

As an ESRI Silver Partner, SOH has had access to the latest GIS software and training from the largest provider of geographic information system software in the world. This compelling combination has enabled the firm to remain a leader in the practical application of advanced GIS technology.

The following GIS-specific projects are detailed in *Section F: Example Projects*.

For the US Army Corps of Engineers' Boundary Studies and Surveys for eight US Army installations and 120,974 acres of land, SOH provided crucial support surveying, providing ground control for aerial imagery, and CAD formatted planimetric and topographic mapping. In addition, SOH has developed survey grade ArcGIS geodatabases, attendant metadata, and the complex conversions necessary to move data from AutoCAD to ArcGIS.

SOH completed 3D imaging services for 3,650 lane miles of City and County of Honolulu roads for the *Pavement Management System and Street Condition Survey*. Over 60 million images were captured, compiled, processed, mapped, and fed into the City's ArcGIS database for viewing and analysis by Department of Facility Maintenance personnel.

In 2015, SOH completed complex and exacting airport mapping survey work at the then, Honolulu International Airport. In the field, SOH survey crews located a wide variety of specific runway end elements and markings required by the FAA. In the office, GIS personnel identified and classified the objects and markings according to FAA Advisory Circular AC 150/5300-18B. All information was then provided as attributes for pre-defined feature classes and eventually uploaded to the FAA Airports-GIS website.



SAM O. HIROTA, INC.

Should you have any questions, please do not hesitate to contact me at (808) 382-6536, or via email at dennishirota@gmail.com. We look forward to working with the Department of Information Technology, on any and all of its critical projects that help improve the safety, security, and quality of life for all of Hawaii's people.

Very truly yours,

SAM O. HIROTA, INC.

Dennis I. Hirota, PhD, PE, LPLS
President

1. Firm Information

Name of the Firm:	Sam O. Hirota, Inc.
Principal place of business:	864 South Beretania Street Honolulu, Hawaii 96813 Ph: 808 537-9971 Fax: 808 524-6313 info@samhirota.com

OFFICE LOCATION

Sam O. Hirota, Inc.
864 South Beretania Street
Honolulu, Hawaii 96813

No other office locations.



2. Age of the Firm

Age of the firm:	Founded in 1963 - 60 years in business
Average number of employees over the past year:	20



3. Key team member education, training and qualifications

Team Member	Years of Experience	Years at Firm	Project Role
Dennis Hirota, PhD, PE, LPLS	55	52	Quality Assurance
Steve M. Tomei, LPLS	48	48	Project Manager, Land Surveyor
Rommel Ofalsa, LPLS	25	12	Project Land Surveyor
Winston Ing, PE, LPLS	22	22	Civil Engineer, Land Surveyor
Ronald Guerrero	24	13	GIS Manager
Ray Sandla	11	11	Project Manager, 3D Laser Scanning
Total	185	158	
Average	31	26	

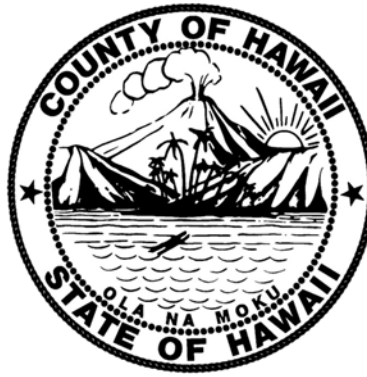
The firm has demonstrated success on the following, and other, Hawaii Island projects: **Sam O. Hirota, Inc. as Infrastructure Engineering Consultant for Waikoloa Employee Housing Unit** provided services including coordination of Planning and RFP for Design/build of 1,200 housing units; and **Kaloko Heights Aerial LiDAR Topographic Survey & Mapping**.

The firm has also demonstrated successful performance on complex surveying work for the State of Hawaii Department of Transportation and National Geodetic Survey, **Height Modernization Facilities, Digital Leveling, Islands of Oahu, Maui, and Kauai** and the US Army Corps of Engineers **Boundary Studies and Surveys for Various Army Installations, Oahu, and Island of Hawaii**.

Sophisticated and comprehensive GIS work was involved in the successful completion of the City and County of Honolulu's 2012 and 2014 **Pavement Management System and Street Condition Survey**.

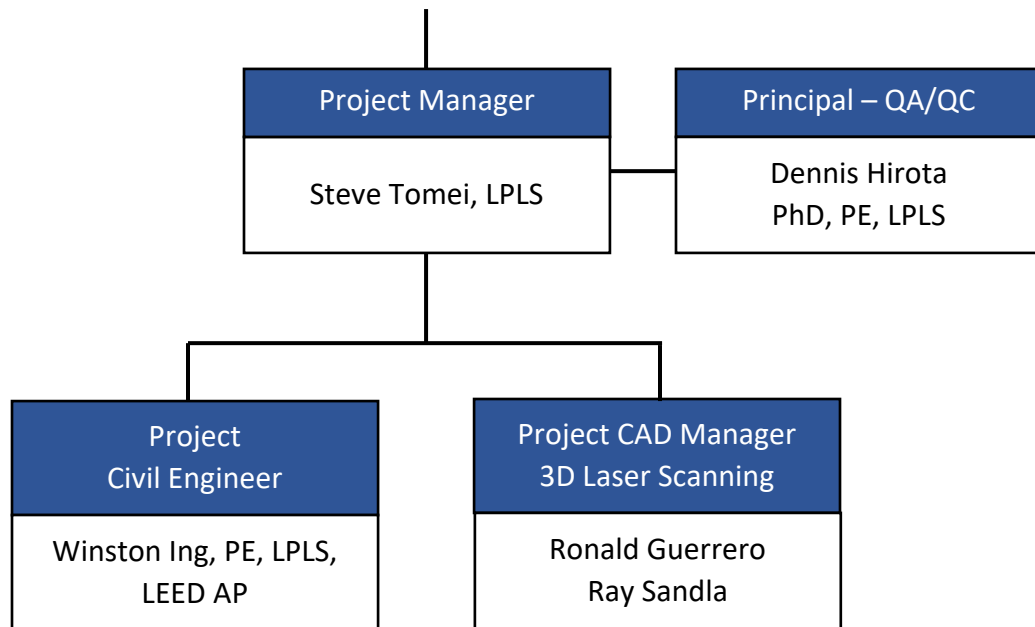
SOH is one of the few firms in Hawaii that owns its own 3D color laser scanning equipment and the extensive post-processing software necessary to create comprehensive, accurate, and cost-effective data that the County of Hawaii can use to plan, maintain, manage, map, measure, and compellingly visualize its valuable assets.

Please see Section 5. *Promotional and Descriptive Literature* for more information on the exciting potential for these advanced technologies.



DEPARTMENT OF INFORMATION TECHNOLOGY

DS.1) Computer Engineering
(GIS Mapping/Programming Services)



12. NAME		13. TITLE SERVICE PROVIDED		14. YEARS EXPERIENCE	
Dennis I. Hirota, PhD, PE, LPLS		Principal, Quality Assurance		a. TOTAL	b. WITH CURRENT FIRM
				55	52
15. FIRM NAME AND LOCATION (City and State)					
SAM O. HIROTA, INC., Honolulu, Hawaii					
16. EDUCATION (DEGREE AND SPECIALIZATION)			17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)		
BS	University of Michigan	1963	Civil Engineering	1973	Hawaii Civil Engineering 3377
MS	University of Michigan	1964	Sanitary Engineering	1997	Hawaii Land Surveying 9141
PhD	University of Michigan	1970	Civil Engineering	2004	Hawaii Land Court 289
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)					
Dr. Hirota served as an Advisory Board member of SPAR3D, a world leading surveying, 3D imaging and LiDAR scanning conference and exhibition company, was 2009 Engineer of the Year from the Hawaii Society of Professional Engineers, and was named 2019 Titan of Technology of the Year for Pacific Business News. After acquiring bachelor, masters, and doctoral degrees in civil engineering at the University of Michigan and serving in the Air Force in Michigan and New Mexico, Dr. Hirota was appointed President of Sam O. Hirota, Inc. in 1986. Memberships - American Council of Engineering Companies of Hawaii (ACECH), Hawaii Association of Land Surveyors (HALS), Society of American Military Engineers (SAME), Hawaii Leeward Planning Conference (HLPC).					
19. RELEVANT PROJECTS					
a.	(1) TITLE AND LOCATION (City and State)			(2) YEAR COMPLETED	
	BWS Aina Haina Reservoir No. 2 Aina Haina, Hawaii			PROFESSIONAL SERVICES Current	CONSTRUCTION (If applicable) On-going
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE			<input checked="" type="checkbox"/> Check if project performed with current firm	
	Dr. Hirota is responsible for all Sam O. Hirota, Inc. topographic surveying related to the BWS project, which includes survey of TMK: 3-6-016: 040 and the existing BWS parcel. Also included is partial survey of TMK: 3-6-019: 012, the former Wailupe Valley Elementary School parcel and partial topographic survey locating the existing building and area to be acquired for the consolidation and subdivision process. Underground utilities will be based on record drawings provided. Surface manhole, handholes or features will be located.				
b.	(1) TITLE AND LOCATION (City and State)			(2) YEAR COMPLETED	
	Kaloko Heights, Civil Engineering, Land Surveying, Aerial LiDAR, Kailua-Kona, Hawaii			PROFESSIONAL SERVICES Current	CONSTRUCTION (If applicable) On-going
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE			<input checked="" type="checkbox"/> Check if project performed with current firm	
	Dr. Hirota has served multiple roles for the Kaloko Heights project. He initiated, coordinated, and quality managed the aerial LiDAR surveying by subcontractor Quantum Spatial, oversaw much of the civil engineering work for RCFC Kaloko Heights LLC, and is helping to coordinate surveying logistics for the Hawai'i Community Development Corporation.				
c.	(1) TITLE AND LOCATION (City and State)			(2) YEAR COMPLETED	
	City and County of Honolulu (NPDES); Small Municipal Separate Storm Sewer Systems (MS4) Permit, Oahu, Hawaii			PROFESSIONAL SERVICES Current	CONSTRUCTION (If applicable) On-going
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE			<input checked="" type="checkbox"/> Check if project performed with current firm	
	Dr. Hirota quality manages all SOH professional services for NPDES, MS4 permit program for the City and County of Honolulu (CCH). The purpose is to produce Best Management Practices (BMPs) and reduce pollutant runoff from golf courses and other CCH properties. The studies included Low Impact Development strategies to minimize pollutants discharge and maintaining the natural hydrologic functions, achieve natural resource protection goals and meet environmental performance requirements.				
d.	(1) TITLE AND LOCATION (City and State)			(2) YEAR COMPLETED	
	BWS Kamehame Utility Tunnel 36-Inch Main Rehabilitation Honolulu, Hawaii			PROFESSIONAL SERVICES 2019	CONSTRUCTION (If applicable) 2019
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE			<input checked="" type="checkbox"/> Check if project performed with current firm	
	Dr. Hirota oversaw all SOH work on the complex and unique engineering project. He actively participated in all meetings with engineering and surveying personnel and investigated the possibility of using 3D laser scanning technology to capture details of the difficult to access areas of the project. These technologically advanced ideas were not implemented due to various reasons, but the firm worked out all logistics and workflows to provide full digital documentation capability, should BWS see a future need.				

12. NAME	13. TITLE SERVICE PROVIDED	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Steven M. Tomei, LPLS	Project Manager	48	48

15. FIRM NAME AND LOCATION (City and State)
SAM O. HIROTA, INC., Honolulu, Hawaii

16. EDUCATION (DEGREE AND SPECIALIZATION) | 17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
A.S. 1972 Chabot University Engineering Technology | **2005 Hawaii Land Surveyor 11639**

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)
 Mr. Tomei has 48 years of experience in the civil engineering, surveying and site construction fields. For the past 30 years he has held the positions of Project Manager and Director of Operations for numerous large, high-end civil engineering and surveying projects. His surveying experience extends to boundary, topographic, hydrographic, shoreline, digital leveling, aerial, GPS and LIDAR surveying. For the past ten years, Mr. Tomei has concentrated on resort/residential projects, overseeing complex, large-scale surveying and engineering development and renovation projects in the State of Hawaii, Guam, and other areas of the Pacific Rim. Memberships -Hawaii Association of Land Surveyors, Society of American Military Engineers

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Kona Village Civil Infrastructure Restoration Kaupulehu, North Kona, Hawaii	Current	2023
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
Steve Tomei leads the master planning process, providing civil engineering and surveying support. Sam O. Hirota, Inc., is restoring the entire infrastructure of the iconic resort to current codes, including the sewer, water, irrigation, gas, electrical, telecommunication systems, wastewater treatment plant, a new reverse osmosis plant for irrigation, fire protection and support to the vertical products. SOH is responsible for processing and assisting with approvals for NPDES permitting, FEMA Elevation Certification, HELCO, County of Hawaii Department of Public Works, Planning Department, Fire Department and State of Hawaii Department of Health, Waste Water Branch and Clean Water Branch, and the Corp of Engineering 404 Permitting.			
b.	Kaloko Heights, Civil Engineering, Land Surveying, Aerial LiDAR, Kailua-Kona, Hawaii	Current	On-going
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
Sam O. Hirota, Inc. and Project Manager Steve Tomei provided aerial LiDAR topographic survey and mapping and civil engineering work for the RCFC phase of the project. The Hawaii Community Development Corporation phase will bring 80 affordable housing units to Kaloko Heights. Mr. Tomei is coordinating survey work for this phase of the project.			
c.	City and County of Honolulu (NPDES); Small Municipal Separate Storm Sewer Systems (MS4) Permit, Oahu, Hawaii	Current	On-going
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
Sam O. Hirota, Inc. is providing topographic surveying and mapping, planning, programming, and scheduling, and civil engineering services for the Kona Airport project. Mr. Steve Tomei is leading all SOH services in conjunction with Dr. Dennis Hirota. Mr. Tomei attends Department of Transportation – Airports meetings in Kona while coordinating and scheduling all services. He is the main point of contact with DPW and DWS on all grading and utility permitting and overseas all SOH office personnel working on the project.			
d.	BWS Kamehame Utility Tunnel 36-Inch Main Rehabilitation Honolulu, Hawaii	2019	2019
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
Mr. Tomei was the Project Manager for the new 2,200 linear feet of 30-inch HPDE line within the existing 36 inch concrete main, two sampling taps at the end of the new 30 inch main within a protective enclosure and two 30-inch bevel geared gate valve at both entrances along the 36-inch concrete main, coordination with structural and geotechnical soils engineer, archeological consultant. He helped coordinate survey work with BWS and other subconsultants and oversaw engineering.			

12. NAME	13. TITLE SERVICE PROVIDED	14. YEARS EXPERIENCE	
Rommel Ofalsa, LPLS	Project Land Surveyor	a. TOTAL	b. WITH CURRENT FIRM
		25	12

15. FIRM NAME AND LOCATION (City and State)
SAM O. HIROTA, INC., Honolulu, Hawaii

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
BS 1994 Civil Engineering University of Hawaii	2002 Land Surveyor Hawaii 10544 2009 Land Court Hawaii 311

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)
 Mr. Ofalsa has over 20 years of experience in Surveying and over 10 years of experience as a Project Land Surveyor for many significant Sam O. Hirota, Inc. (SOH) surveying projects. Memberships -Society of American Military Engineers (SAME)

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Boundary Studies and Surveys for Various Army Installations, Oahu and Island of Hawaii, Hawaii (Task Order #24)	2018	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
Mr. Ofalsa led SOH efforts in conducting boundary surveys for 120,974 acres of US Army -controlled land on Oahu and Hawaii Island. Surveys included title reports, recovery of boundary evidence, staking of missing boundary corners, location of installation perimeter fence, and location of improvements. The team also established ground control points for aerial surveys and integrated aerial and terrestrial data into updated orthomosaics.			
b.	Height Modernization Facilities, Digital Leveling, Islands of Oahu, Kauai, and Maui, State of Hawaii	Current	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
Total project length on Oahu was approximately 108.1 miles of selected routes, 121.20 miles on Kauai, and 171.2 miles on Maui. Project scope involved conducting precision digital leveling to National Geodetic Survey, Second Order, Class 1 standards. SOH was able to recover a significant number of existing survey control stations, thereby reducing time and effort. SOH worked closely with HDOT so that submitted project safety plan, quality control plan, and survey plan could be reviewed and approved in a timely manner. Sam O. Hirota, Inc. (SOH) is one of the few, if not only, land surveying company in Hawaii with two Trimble Dini 0.3 digital electronic levels used on this project. Mr. Christopher Guerin completed a Consultant Performance Evaluation on 8/22/17. In the evaluation, Mr. Guerin rates SOH, and in particular, Mr. Ofalsa, as Excellent for all factors. Mr. Guerin cites communications responsiveness, cooperation with HDOT personnel, completeness of Survey, Quality Control, and Accident Prevention plans, and an "...excellent grasp of the complexity of the digital leveling and the NGS manual that explains all the field and office procedures used daily."			
c.	Waiahole Bridge Surveying Services, Kamehameha Hwy, Waikane, Oahu, Hawaii	2017	On-going
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
Mr. Ofalsa managed SOH topographic survey services to locate improvements and determine ground topography of Kamehameha Highway project area. Survey along the Highway extends approximately 1000' on either side of the existing bridge. Work included obtaining Right-of-Entries from all adjoining property owners necessary to complete the field study. Cross-section Survey - Field survey was done to survey cross sections of Waiahole Stream. Mr. Ofalsa briefed SOH field survey crews on requirements and provided logistics and safety planning for the in-stream portion of the survey work.			
d.	Honolulu International Airport Survey, Primary and Secondary Survey Monuments and End Runway Survey, Oahu, Hawaii	2017	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
Mr. Ofalsa was Project Surveyor for Sam O. Hirota, Inc. surveying services performed at the Honolulu International Airport. Mr. Ofalsa successfully communicated with all stakeholders to complete the exacting and technically demanding project. Data was integrated into the FAA's Airports Geographic Information System. Scope of work also included the Survey and Quality Control Plan (SQCP), which included feature extraction, prior survey data, field survey methods, horizontal and vertical controls, equipment listing and quality assurance process. Integrated the FAA's Airport Field Survey Checklist.			

12. NAME	13. TITLE SERVICE PROVIDED	14. YEARS EXPERIENCE	
Winston Ing, PE, LPLS, LEED AP BD+C	Project Civil Engineer	a. TOTAL	b. WITH CURRENT FIRM
		22	22
15. FIRM NAME AND LOCATION (City and State)			
SAM O. HIROTA, INC., Honolulu, Hawaii			
16. EDUCATION (DEGREE AND SPECIALIZATION)		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
B.S. University of Hawaii 2000 Civil Engineering		2005 Hawaii Civil Engineer 11452	
		2012 Hawaii Land Surveyor 14082	
		2019 LEED AP BD+C	10669107
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			
Mr. Ing has over 20 years of experience in Civil Engineering and Land Surveying, proving to be a key component as the Project Civil Engineer for Federal, State, County and private projects. His extensive experience includes engineering studies and reports, design, permitting and construction documents for various site related projects. Projects included site development, subdivisions, grading and utilities support to structures, NPDES permitting, LEED permitting and construction administration. Memberships - Hawaii Association of Land Surveyors (HALS), Society of American Military Engineers (SAME)			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
City and County of Honolulu (NPDES); Small Municipal Separate Storm Sewer Systems (MS4) Permit, Oahu, Hawaii	Current	On-going
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
a. Mr. Ing is assisting in the technical and professional services for the NPDES, MS4 permit program for the City and County golf courses. The purpose is to produce Best Management Practices (BMPs) and reduce pollutant runoff from the golf courses. The studies included Low Impact Development strategies to minimize pollutants discharge and maintaining the natural hydrologic functions, achieve natural resource protection goals and meet environmental performance requirements.		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
Kona Village Civil Infrastructure Restoration Kaupulehu, North Kona, Hawaii	Current	2023
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
b. Mr. Ing is involved in the 81-acre, 125 vacation bungalow ocean side resort. The iconic Hawai'i Island resort closed in 2011, due to heavy tsunami damage. Mr. Ing is supporting civil engineering services involving master planning, EA/EIS, permitting, civil site work consisting of new roads and site utility infrastructure, wastewater treatment plant, mass grading, subdivision and easement documentation and coordination with state and local agencies to facilitate the reopening of the resort. Support infrastructure will be provided for various hotel facilities and buildings. As a Hawai'i-licensed Civil Engineer and Land Surveyor, Mr. Ing's expertise is especially valuable for the all-encompassing effort to rebuild the iconic resort. His in-depth subdivision knowledge is proving essential to planners in their many and varied plans for the future of the site.		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
US Army Boundary Surveys and Mapping Various Army Installations, Oahu, and Hawaii Island	2018	N/A
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
c. Totaling 120,974 acres and 8 US Army facilities, the boundary and topographic survey services included title reports, recovery of boundary evidence, staking of missing boundary corners, location of installation perimeter fence, and location of improvements 5 feet beyond the property boundary. Cadastral survey grade ArcGIS geodatabase development including collection of hard copies, validation of existing survey and title information and creation of parcel /boundary data and monumentation.		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
BWS Kamehame Utility Tunnel 36-Inch Main Rehabilitation Honolulu, Hawaii	2019	2019
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
d. Mr. Ing engaged in the preparation of drawings, plans and engineering services for a new 2,200 linear feet of 30-inch HPDE line within the existing 36-inch concrete main, two sampling taps at the end of the new 30 inch main within a protective enclosure and two 30-inch bevel geared gate valve at both entrances along the 36-inch concrete main. Coordinates with structural and geotechnical soils engineer, and archeological consultant for accuracy. Topographical survey will be conducted at both sides of the 36-inch main tunnel.		

12. NAME	13. TITLE SERVICE PROVIDED	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Ronald Guerrero	CAD, GIS Manager	24	13

15. FIRM NAME AND LOCATION (City and State)
SAM O. HIROTA, INC., Honolulu, Hawaii

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
1992 Leeward Community College Associates Degree in Architectural Drafting	N/A

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

Mr. Guerrero has 20 years of experience as a Geographic Information Systems (GIS) and CAD Manager. He creates and manages USACE GIS geodatabases for all SOH Army Corps work, and has experience with boundary, construction, topographic, hydrographic, shoreline, elevation certification, aerial, GPS and LIDAR surveying. Mr. Guerrero spent 9 years at the US Army Corps of Engineers in a leading GIS/CAD capacity before joining SOH.

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Topographic Survey and Geotechnical Investigation PH1 & PH2 for Pacific Missile Range Facility (PMRF) Barking Sand, Kauai, Hawaii	2022	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
Sam O. Hirota, Inc. provided new aerial surveys for Pacific Missile Range Facility (PMRF) Barking Sands, Kauai, Hawaii. Mr. Guerrero is responsible for all GIS concerns, integration of boundary lines, easements, leases, utilities, and other real property considerations. Mr. Guerrero also oversaw much of the work involving adjacent properties, internal boundaries within the installation property, easements, and managed the incorporation of digital aerial images/aerial mapping into the GIS, and photogrammetric mapping.			
b.	HDOT Bridge & Cross Section Surveys Oahu, Hawaii & Big Island, Hawaii	Current	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
Sam O. Hirota, Inc. (SOH) shall conduct field survey on specified bridge and adjacent areas on the island of Oahu, Hawaii and Big Island (Hawaii, Hawaii). The surveys at each bridge area shall include the general bridge geometry, top bridge elevation, and three (3) cross-sections. Mr. Guerrero is responsible for all GIS concerns regarding the bridge survey and cross-sections.			
c.	Topographic Survey/Mapping, Geotechnical, and Sedimental Sampling Data Collection Ala Wai Canal Flood Risk Management (FRM) Project Ala Wai Watershed, Island of Oahu Waihi Basin & Waiakeakua Basin	2021	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
Sam O. Hirota, Inc. provided new aerial surveys for Ala Wai Watershed, Oahu, Hawaii. Mr. Guerrero is responsible for all GIS concerns, integration of boundary lines, easements, leases, utilities, and other real property considerations. Mr. Guerrero also oversaw much of the work involving adjacent properties, internal boundaries within the installation property, easements, and managed the incorporation of digital aerial images/aerial mapping into the GIS, and photogrammetric mapping.			
d.	US Army Boundary Surveys and Mapping Various Army Installations, Oahu, and Hawaii Island	2018	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
Sam O. Hirota, Inc. provided new aerial surveys for 8 US Army bases in Hawaii totaling 120,000 acres. Mr. Guerrero is responsible for all GIS geodatabase creation/modification, integration of boundary lines, easements, leases and other real property considerations. Mr. Guerrero also oversaw much of the work involving adjacent properties, internal boundaries within the installation for ACTUS/IPC property, Aqua Engineers easements, and HECO easements and managed the incorporation of digital aerial images/aerial mapping into the GIS, and photogrammetric mapping.			

12. NAME		13. TITLE SERVICE PROVIDED		14. YEARS EXPERIENCE	
Raymond Sandla		3D Laser Scanning/Modeling Project Manager		a. TOTAL	b. WITH CURRENT FIRM
				11	11
15. FIRM NAME AND LOCATION (City and State)					
SAM O. HIROTA, INC., Honolulu, Hawaii					
16. EDUCATION (DEGREE AND SPECIALIZATION)				17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
University of Hawaii				N/A	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)					
SAME-Society of American Military Engineers HLSA – Hawaii Land Surveyors Association					

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Kamehameha Schools – Akahi Dining Hall Digital Documentation	2019	On-going
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
	Scanning/Modeling Project Manager - Mr. Sandla was responsible for managing the 3D laser scanning and high-resolution color imaging that captured the 60,00 square foot building that serves as the main dining hall for the school's Kapalama campus. The building's entire interior and exterior were surveyed, and the firm used three different laser scanners – two terrestrial and one mobile mapping scanner – to complete the data capture phase of the project in two days. The scans were processed using a combination of software that formatted, registered, decimated, and readied the data for a full Revit model. The detailed Revit model was produced by a subcontracting firm under the direction of SOH and provided to WRNS Studio, project architect, in three weeks.		
b.	Sinclair Library Digital Documentation University of Hawai'i, Manoa	2019	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
	Using SOH's new NavVIS mobile scanning and imaging platform Mr. Sandla simultaneously laser scanned and captured high-resolution 360° panoramic images of two large study areas slated for renovation at Sinclair Library. UH Mānoa facility personnel were on hand to see the areas, measuring approximately 4-5,000 square feet each, digitally captured to 5mm precision within one hour. Possible uses of the data are measurements, floor plans derived from the point clouds, visualization of the layout, and more.		
c.	Kapolei Pump Station Digital Documentation Kapolei, Oahu	2019	2017
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
	Utilizing the NavVIS mobile scanning and imaging platform, Mr. Sandla digitally captured three interior floors and most the exterior of the City and County of Honolulu Environmental Services' Kapolei Pump Station in just under one hour to 5mm precision. The object of the demonstration project was to show City officials an efficient, fast and safe method of capturing existing conditions of a complex City-maintained building. Currently SOH and Env. Personnel are determining the best use of the scan and imaging data. Examples are asset management, as-built plans, training, integration to GIS, etc.		
d.	Documenting Hawaii's Art in Architecture Program – Cascade, Prince Jonah Kuhio Kalaniana'ole Federal Building and US Courthouse	2021	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
	The firm utilized a creative combination of 3D imaging sensors, powerful custom-built computers, and innovative software to produce virtual 3D models of the fountain that can be used as the basis for repair, restoration, 3D printing, and other conservation activities. Mr. Sandla was responsible for the photographic documentation, taking over 1600 photos of the sculpture for later processing that produced a full-color 3D model of Cascade. The project received the prestigious 2022 ACECH Engineering Excellence, Grand Conceptor award, the American Council of Engineering Companies, Hawaii top engineering honor.		

County of Hawaii
Notice to Providers of Professional Services FY 2023-2024

4. Client References

SOH services were provided to Mr. Matsuo at the Board of Water Supply and Mr. Guerin at the State Department of Transportation within the past year.

Mike Matsuo, Water Systems Planning
Branch Head
630 South Beretania Street
Honolulu, Hawaii 96843
Ph: 808.748.5951

City and County of Honolulu
Honolulu Board of Water Supply

Christopher Guerin
State Land Boundary Surveyor
601 Kamokila Blvd.
Kapolei, Hawaii 96707
Ph: 808.692.7602

State of Hawaii
Department of Transportation
Technical Design Service Office, Room 688

Clifford Lau, Chief, Facilities Division
650 South King Street
Honolulu, Hawaii 96813
Ph: 808.768.8478

City and County of Honolulu
Dept. of Design and Construction

Edward E. Carlson
NOAA Inouye Regional Center
NOS Pacific Services Center
Honolulu, Hawaii 96818
Ph: 808-725-5255

Pacific Region Geodetic Advisor
National Geodetic Survey

Jay Uyeda
Hualalai Investors, LLC
P.O. Box 1119
Kailua-Kona, Hawaii 96745
Ph: 808.325.8191
Email: juyeda@hualalairesort.com

Director of Development

Enjon Angelo
62 Kauna'oa Dr, Waimea, HI 96743
Ph: 808-960-3600
Email: eangelo@westpointinc.com

Project Manager

County of Hawaii
Notice to Providers of Professional Services FY 2023-2024

Projects

The following projects have utilized various combinations of SOH civil engineering and surveying work. Engineering services included, among others, site development, horizontal and vertical alignment of roadways, grading and drainage, water and sewer systems, and obtaining approvals from various County and State agencies. Surveying services included topographic and aerial mapping, ALTA surveys, boundary stakeouts, shoreline surveys, construction surveys, subdivision application, easement mapping and descriptions, file plan and land court process, and digital leveling.

Title	Client	Year Completed
Kaloko Heights Affordable Housing Subdivision 1	Hawaii Island Community Development	Current
Hapuna Residences Mauna Kea	DeReus Architects	Current
Mauna Lani Prospect Hill	Prospect Hill Group	2017
Wheeler AFB Rotary Wing Parking Apron	USACE	2018
Ewa Villages R1 Replacement	Koga Engineering	Current
Kohanaiki Subdivision	Kohanaiki	Current
Kukio / Hualalai Improvements	Kukio Golf & Beach Club	Current
Kona Village Civil Reconstruction	Isemoto Contracting Co.	Current
Four Seasons Bungalow Survey	Hualalai Investors, LLC	2018
Four Seasons Scanning	Hualalai Investors, LLC	2016
Hualalai Various Projects	Hualalai Investors, LLC	2016
Queen's Medical Center – Kāhala	Quad Design Group	2021
Na Pua Makani	Na Pua Makani Power Partners	2019
Kaena Ridge Survey	USACE	2019
Kamehameha Hwy Wastewater Pump Station	Healy Tibbitts	2021
Ala Wai Canal Topographic Survey	USACE	2021
Kukui Tower ALTA Survey	EAH Housing	2018
Height Modernization Facilities, Digital Leveling, Oahu, Kauai, and Maui	State of Hawaii, DOT-Highways	2018
US Army Boundary Studies, Oahu and Hawaii Island Installations	USACE	2018

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE FIRMS QUALIFICATIONS FOR THIS SERVICE CONTRACT

(Present no more than 10 projects, with emphasis on previous City projects. Complete one Section F for each project.)

21. TITLE AND LOCATION (City and State)

**Kona Village Civil Infrastructure Restoration
Kaupulehu, North Kona, Hawaii**

22. YEAR COMPLETED

PROFESSIONAL SERVICES

CONSTRUCTION(If applicable)

Current

On-going

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

Kennedy Wilson
3200 Bristol Street, Suite 640
Costa, Mesa, CA 92626

b. POINT OF CONTACT NAME

Mr. Dave Eadie

c. POINT OF CONTACT TELEPHONE NUMBER

714-619-7800

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)



Kona Village site - 81.4 acre property is being restored and enhanced by landowner Kamehameha Schools and global real estate investment company and developer Kennedy Wilson. Sam O. Hirota, Inc. (SOH) is leading the effort to restore the site's tsunami-damaged civil infrastructure. Image at left is an SOH aerial image taken in 2009, well before the March 2011 tsunami devastated the area.

With hopes of reopening the iconic Hawaii Island resort, developer Kennedy Wilson retained Sam O. Hirota, Inc. to help rehabilitate the civil infrastructure swept away by the March 2011 tsunami. Since 2011, SOH has been providing consulting engineering as well as a multitude of other services to assist the effort.

SOH is restoring the entire infrastructure to current codes, including the sewer, water, irrigation, gas, electrical, telecommunication systems, wastewater treatment plant, a new reverse osmosis plant for irrigation, fire protection and support to the vertical

products. SOH is responsible for processing and assisting Kennedy Wilson with approvals for NPDES permitting, FEMA Elevation Certification, HELCO,

County of Hawaii Department of Public Works, Planning Department, Fire Department and State of Hawaii Department of Health, Waste Water Branch and Clean Water Branch, and the Corp of Engineering 404 Permitting.

As Kennedy Wilson's Dave Eadies said in a joint Kamehameha Schools/Kennedy Wilson press release, “Kennedy Wilson...embraces and respects Hawaiian culture and the protection of Hawai‘i’s natural resources. We take great pride in the fact that returning the Kona Village Resort to full service will provide stable jobs for scores of Hawai‘i island residents.”

Sam O. Hirota, Inc. realizes the significance of this special place and is honored to have a part in restoring this culturally and economically important resort to its status as a world-class, low-density, iconic destination. SOH will continue to support the civil infrastructure needs of the project until its completion and planned re-opening.

25. FIRMS INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	Sam O. Hirota, Inc.	Honolulu, Hawaii	Prime – Civil Engineering, Land Surveying

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE FIRMS QUALIFICATIONS FOR THIS SERVICE CONTRACT

(Present no more than 10 projects, with emphasis on previous City projects. Complete one Section F for each project.)

21. TITLE AND LOCATION (City and State)

**Kaena & Kawaihapai,
Mokuleia, Waialua, Oahu, Hawaii**

22. YEAR COMPLETED

PROFESSIONAL SERVICES

CONSTRUCTION(If applicable)

Current

N/A

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

Aiea Realty
99-860 Iwaena St. #203
Aiea, HI 96701

b. POINT OF CONTACT NAME

David Taogoshi

c. POINT OF CONTACT TELEPHONE NUMBER

808-342-1040

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

Sam O. Hirota, Inc. is providing a field survey of “Kaena Farm Lots” and “Kawaihapai Farms” recovering and locating existing boundary points along the perimeter of both project parcels and neighboring parcels including Dillingham Airfield boundaries. Survey shall capture Aerial LIDAR and Photogrammetric data, locate with elevations improvements, measure utility inverts and pipe sizes, and determine ground topography. Survey shall also include establishment of survey controls and benchmarks.

Field survey consists of:

- resetting missing boundary corners along both project parcels
- conducting a boundary study to better determine the location of both parcels
- should the field investigation reflect the gap along the Dillingham Airfield boundary, the intent is to prepare a revised mapping, descriptions and coordinate with the Attorney at Law to record documentation

SOH shall prepare and provide “metes and bounds” description of adjusted Lot A-1. Deliverables shall consist of PDF files of boundary survey map and “metes and bounds” description.



25. FIRMS INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	Sam O. Hirota, Inc.	Honolulu, Hawaii	Prime Consultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE FIRMS QUALIFICATIONS FOR THIS SERVICE CONTRACT

(Present no more than 10 projects, with emphasis on previous City projects. Complete one Section F for each project.)

21. TITLE AND LOCATION (City and State)

Boundary Studies and Surveys for Various Army Installations Oahu, and Island of Hawaii, Hawaii

22. YEAR COMPLETED

PROFESSIONAL SERVICES

CONSTRUCTION(If applicable)

2018

N/A

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

b. POINT OF CONTACT NAME

c. POINT OF CONTACT TELEPHONE NUMBER

US Army Corps of Engineers Honolulu District

Ms. Tammy Luke

(808) 835-4078

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

The Boundary Studies and Surveys for Various Army Installations, Oahu, and Hawaii Island represents one of the largest survey projects accomplished by any Hawaii survey firm, demonstrating that SOH, as a small business, can successfully complete a large and complex boundary and topographic survey project across various types of terrain. Totalling 120,974 acres and 8 US Army facilities, the boundary and topographic survey services included title reports, recovery of boundary evidence, staking of missing boundary corners, location of installation perimeter fence, and location of improvements 5 feet beyond the property boundary. Cadastral survey grade ArcGIS geodatabase development including collection of hard copies, validation of existing survey and title information and creation of parcel /boundary data and monumentation.



Work included new aerial surveys, identification of adjacent properties, internal boundaries within the installation for ACTUS/IPC property, HECO easements, installation or replacement of missing monuments, and field verification of encroachments and conflicts. In addition, new title reports for each installation were included.

Surveys also included the installation and location of ground control points for reference by the aerial survey. Project deliverables included ArcGIS Geodatabase and metadata for boundaries, survey controls, and monumentation.

Installations surveyed were Aliamanu Military Reservation, Kipapa Gulch, Mokuleia (Old Nike Site), Schofield Barracks, Pohakuloa Training Area, Fort Shafter and Shafter Flats, Tripler Army Medical Center, Wheeler Army Air Field, East Range and Fort DeRussy Military Reservation.

“Although the description of the project appears to be straight forward and easily accomplished, this project has turned out to be very complicated.... Although standard boundary documents were used, Army unrecorded documents and easement discovery was very time consuming, and SOH committed overtime efforts to remain on schedule.

With all of the hurdles that SOH had and continues to overcome, they remain professional, courteous and responsive. SOH does not seek modifications readily; they work with us to provide the best quality submittals. They are always available to meet with us, and they are very helpful in situations where solutions are required.”

25. FIRMS INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	Sam O. Hirota	Honolulu, Hawaii	Prime-Boundary Surveying and Mapping

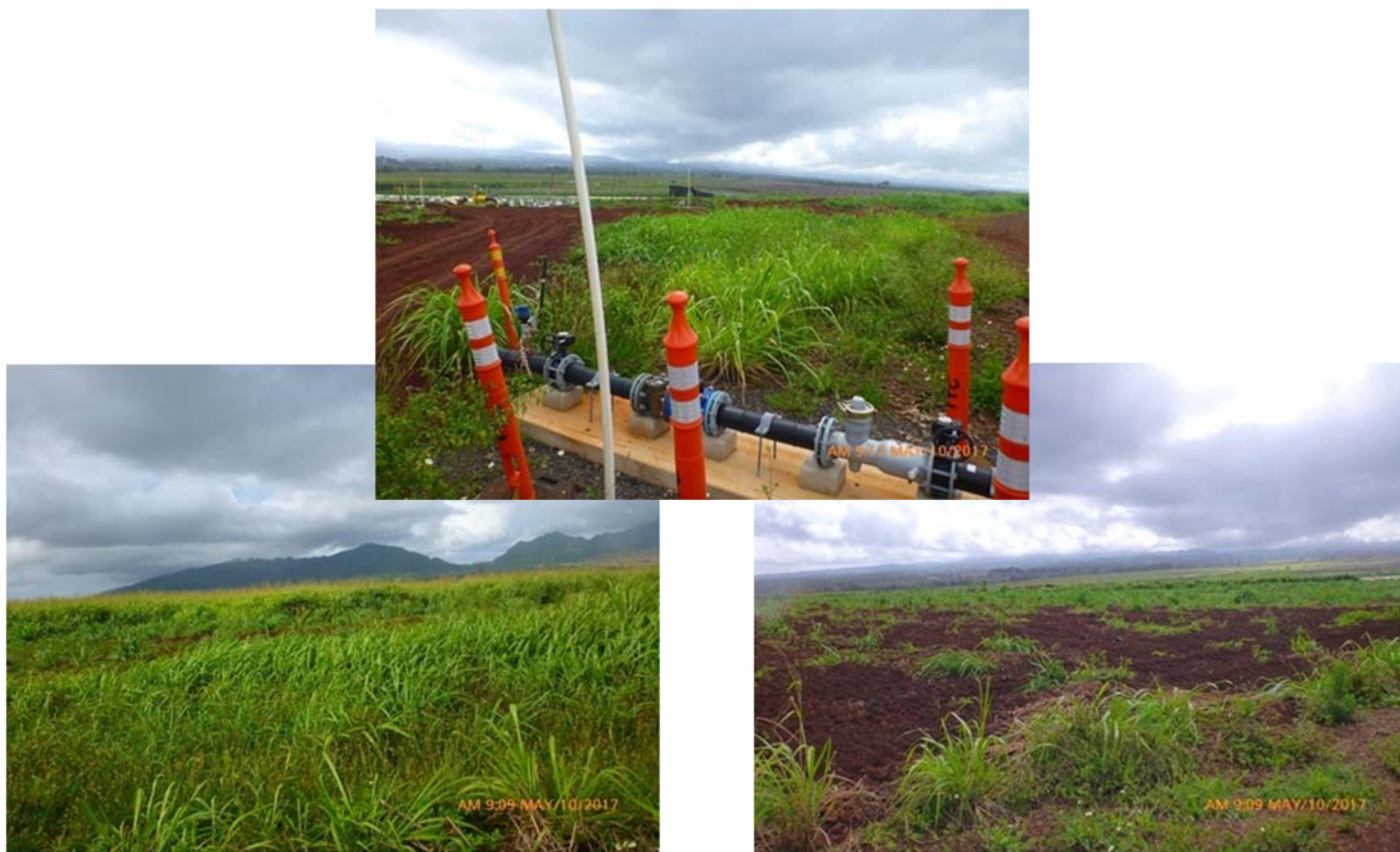
F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE FIRMS QUALIFICATIONS FOR THIS SERVICE CONTRACT

(Present no more than 10 projects, with emphasis on previous City projects. Complete one Section F for each project.)

21. TITLE AND LOCATION <i>(City and State)</i>		22. YEAR COMPLETED	
Galbraith Farm Lots Wahiawa, Hawaii		PROFESSIONAL SERVICES	CONSTRUCTION <i>(If applicable)</i>
		2017	On-going
23. PROJECT OWNER'S INFORMATION			
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER	
Agribusiness Development Corporation 235 South Beretania Street, Room 205 Honolulu, Hawaii 96813	Ken Nakamoto	808-586-0181	
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT <i>(Include scope, size, and cost)</i>			

The Trust for Public Land, a non-profit land conservation organization, bought the 1,732 acres from the Galbraith Estate and then transferred the land to two Hawaii public agencies. More than 1,200 acres went to the state Agribusiness Development Corporation (ADC). The Office of Hawaiian Affairs (OHA) received the remaining acreage which surround Kūkaniloko, the royal birthing site that is one of the most significant cultural sites on Oahu. The properties can only be used for agriculture.

Sam O. Hirota, Inc. provided boundary survey and mapping. A field survey was conducted to stake selected boundary corners for project parcels Lease Farm Lots 1 to 12 of "Galbraith Farm Lots". Boundary staking consisted of a pipe together with rebar with 8-ft PVC pipe, and flagging tape. In lieu of cutting grass between boundary points, boundary points on line with 8-ft pvc markers and flagging were set at approximately 200 feet apart. 83 total points were set. A map was prepared and provided delineating staked boundary corners.



25. FIRMS INVOLVED WITH THIS PROJECT			
	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
a.	Sam O. Hirota, Inc.	Honolulu, Hawaii	Prime Consultant – Land Surveying

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE FIRMS QUALIFICATIONS FOR THIS SERVICE CONTRACT

(Present no more than 10 projects, with emphasis on previous City projects. Complete one Section F for each project.)

21. TITLE AND LOCATION (City and State)

Hawaii DOT Bridge and Cross Section Surveys – Islands of Oahu and Hawaii, Hawaii

22. YEAR COMPLETED

PROFESSIONAL SERVICES

CONSTRUCTION(If applicable)

Current

N/A

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

b. POINT OF CONTACT NAME

c. POINT OF CONTACT TELEPHONE NUMBER

State of Hawaii, Department of Transportation, Airports Division

Mr. David Smith, WEST Consultants

858-487-9378

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

Sam O. Hirota, Inc. (SOH) performed field surveys on specified HDOT bridge areas on the islands of Oahu and Hawaii, Hawaii as a sub-consultant to WEST Consultants. The surveys at each Hawaii Island bridge area and Oahu Bridges Kuou Stream and Kipapa Stream included four top bridge railing points, bridge roadway points, and two cross-sections, one at approximately one hundred feet upstream of the bridge and one at approximately one hundred feet downstream of the bridge.

Surveys for the H3 bridges at the windward side, Oahu consisted of specified pier locations, one cross section at the pier locations and the centerline of streams in the vicinity of the piers.

Deliverables consisted of GIS files of bridge survey and cross-sections. Bridge areas to be surveyed included:

- Kaiwiki Homestead Road Bridge
- Kaiwiki Bridge No. 1
- Waiulili Stream Bridge
- Wai'a'ama Stream Bridge
- Maulua Stream Bridge
- Kaala Stream Bridge
- Kalopa Stream Bridge
- Waiulili Steam Bridge
- Niulii Stream Bridge
- Waikane Stream Bridge
- Aamakoa Stream Bridge
- Unnamed Stream Bridge (Windward OB)
- Unnamed Stream Bridge (Windward IB)
- Haiku Valley
- Haiku Valley Bridge (OB)
- Kuou Stream
- Kipapa Stream



Many areas surveyed involved difficult access and dangerous terrain, yet due to careful planning, experienced surveyors, and safety-first priorities, all data was collected without incident.

25. FIRMS INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	Sam O. Hirota	Honolulu, Hawaii	Sub-consultant - Surveying

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE FIRMS QUALIFICATIONS FOR THIS SERVICE CONTRACT

(Present no more than 10 projects, with emphasis on previous City projects. Complete one Section F for each project.)

21. TITLE AND LOCATION (City and State)

22. YEAR COMPLETED

Varsity Center Digital Documentation

PROFESSIONAL SERVICES

CONSTRUCTION(If applicable)

2021

N/A

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

b. POINT OF CONTACT NAME

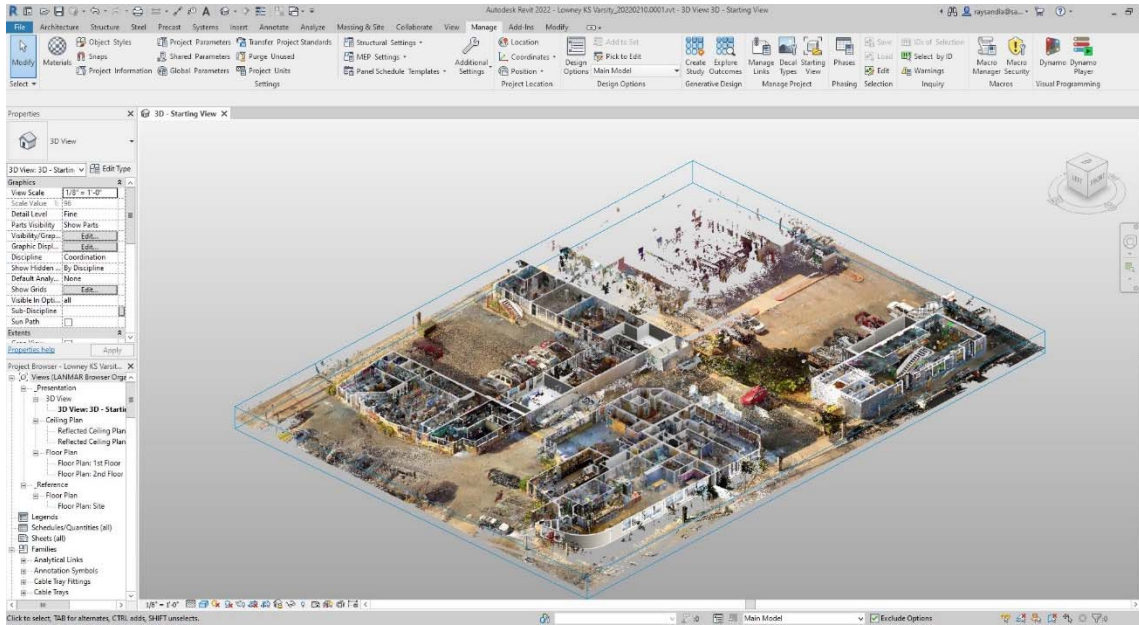
c. POINT OF CONTACT TELEPHONE NUMBER

**Kamehameha Schools
Commercial Property Division
567 South King St, Honolulu, Hawaii 96813**

**Grant Chang
Lowney Architects**

808-769-6808

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)



Left: Registered, geospatially reference laser scans sit inside the final Revit model. Model, scans, and photos have proven useful to architects and developers.

Below: An otherwise completely dark kitchen space lit by LED lights attached to the mobile scanner.

Relevant to the AH2042-34 contract’s scope was mobile laser scanning at the Varsity Center that SOH performed for Lowney Architects in late 2021 and early 2022. Four buildings with various condition challenges, slated for renovation by Kamehameha Schools (KS) were laser scanned and Revit modeled for current condition assessment and future remodeling/renovation use by Lowney and KS. Two large spaces in a Varsity Center building were in particularly poor condition. No electricity and lack of lighting in the dark kitchen and loft spaces might otherwise have precluded contextual color photography taken simultaneously with the laser scans if not for the creative use of LED lights attached to the SOH mobile scanner. The resulting photos, viewable through a browser-based virtual walk-through platform, allowed safe, remote inspection of the somewhat dangerous areas and a greater understanding of conditions at the site. Construction work is expected to begin in 2018.



Sam O. Hirota, Inc. scanning teams completed digital documentation of the approximately 22,000 square feet of interior and exterior space on two separate days. SOH also deployed surveyors to the site to geospatially locate scanning targets placed at strategic points on site. These geospatially referenced targets allowed Hawai‘i State Plane coordinates to be appended to the scans, a crucial aid in registration (alignment) of the many separate scans taken. The scans were delivered to SOH partners who created Revit models of the entire site.

25. FIRMS INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	Sam O. Hirota, Inc.	Honolulu, Hawaii	3D Laser Scanning, Post-processing, Revit Modeling

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE FIRMS QUALIFICATIONS FOR THIS SERVICE CONTRACT

(Present no more than 10 projects, with emphasis on previous City projects. Complete one Section F for each project.)

21. TITLE AND LOCATION *(City and State)*

Kamakoa Master Planning, Waikoloa Village, South Kohala, Hawaii

22. YEAR COMPLETED

PROFESSIONAL SERVICES

CONSTRUCTION *(If applicable)*

Current

N/A

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

PBR Hawaii & Associates, Inc.

b. POINT OF CONTACT NAME

Vincent Shigekuni

c. POINT OF CONTACT TELEPHONE NUMBER

808-954-6317

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Surveying services included:

Sam O. Hirota, Inc. is providing topographic surveying of the project site that was constructed in 2008-2010. The constructed area includes Kamakoa Phase 1A Subdivision and the Lamaloa Park site improvements. The intent is to merge the original topographic survey provided by the County of Hawaii in 2005 with the improvements from the completed work that affects the limits of the Master Plan Study. Services also include a partial boundary survey of the master plan study area with the purpose of defining the limits of study for the archaeological study.

Civil Engineering services included:

Sam O. Hirota, Inc. is providing engineering services that include research of record drawings, past and current permits and land title, land matters documentation from Hawaii Water Company, Waikoloa Land Company, County of Hawaii Department of Public Works (DPW), Planning Department (PD), Hawaiian Electric Light Company, Inc. (HELCO).

Other services include:

- Prepare Preliminary Engineering Report (PER)
 - Description of Existing Infrastructure
 - Estimate of future demand based on project plans
 - Description of Infrastructure Requirements
 - Recommendations for sustainable infrastructure development
 - Recommendations for improvements
 - Preliminary construction budget/estimates for recommended improvements
- Coordinate electrical, communications, cable requirements with Wallace T. Oki PE Inc. site electrical sub-consultant to SOH
- Provide draft PER for review, including text in Microsoft Word and any figures and/or exhibits for internal review and comments
- Revise PER according to review comments and provide Final PER to PBR. Includes electronic files of the report and exhibits



25. FIRMS INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
	Sam O. Hirota	Honolulu, Hawaii	Sub-consultant - Surveying

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE FIRMS QUALIFICATIONS FOR THIS SERVICE CONTRACT

(Present no more than 10 projects, with emphasis on previous City projects. Complete one Section F for each project.)

21. TITLE AND LOCATION (City and State)		22. YEAR COMPLETED	
National Pollutant Discharge Elimination System (NPDES), Small Municipal Separate Storm Sewer Systems (MS4) Permit, Oahu, Hawaii		PROFESSIONAL SERVICES	CONSTRUCTION(If applicable)
		Current	On-going
23. PROJECT OWNER'S INFORMATION			
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER	
Storm Water Quality Branch Dept of Environmental Services 1000 Uluohia St., Suite 303 Kapolei, Hi 96707	Ms. Randall Wakumoto	808-768-3242	
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)			

Sam O. Hirota, Inc. is providing technical and professional services for the NPDES, MS4 permit program for the County golf courses and other properties maintained by Environmental Services. SOH is providing Best Management Practices (BMPs) and strategies to reduce pollutant runoff into streams, canals, and other public water sources.

The studies include Low Impact Development strategies to minimize pollutants discharge while maintaining natural hydrologic functions, achieve natural resource protection goals, and meet environmental performance requirements. Sam O. Hirota, Inc. is a member of the California Stormwater Quality Association (CASQA), which implements recommendations, methodologies set by the EPA



- Sites: (Golf Course Sites = 1276 Acres)
- Ala Wai Golf Course (137.993 acres)
 - Ewa Village Golf Course (235.416 acres)
 - Kahuku Golf Course (302.0 acres)
 - Pali Golf Course (215.524 acres)
 - Ted Makalena Golf Course (150.528 acres)
 - West Loch Golf Course (235.415 acres)
 - Honolulu Zoo
 - Neal Blaisdell Arena

- Civil Engineering includes:
- Site investigations.
 - Guidance and planning for BMPs and LIDs.
 - Prepare recommendations and reports
 - Life cycle cost of recommendations
 - Construction documents for BMPs and LIDs.

- Land surveying includes:
- Partial topographic survey



25. FIRMS INVOLVED WITH THIS PROJECT			
a.	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
	Sam O. Hirota, Inc.	Honolulu, Hawaii	Prime Consultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE FIRMS QUALIFICATIONS FOR THIS SERVICE CONTRACT

(Present no more than 10 projects, with emphasis on previous City projects. Complete one Section F for each project.)

21. TITLE AND LOCATION (City and State)

Kaloko Heights, Aerial LiDAR Topographic Survey & Mapping, Kailua-Kona, Hawaii

22. YEAR COMPLETED

PROFESSIONAL SERVICES

CONSTRUCTION(If applicable)

Current

On-going

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

RCFC Kaloko Heights, LLC
10100 Santa Monica Blvd., Suite 1000
Los Angeles, California

b. POINT OF CONTACT NAME

Phil Russick

c. POINT OF CONTACT TELEPHONE NUMBER

916-952-5600

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

Sam O. Hirota, Inc., is providing civil engineering and aerial LiDAR topographic survey and mapping services for developer RCFC Kaloko Heights LLC. The limits of survey included the TMK of approximately 210 acres. Survey included Hina Lani Street area, establishing the horizontal and vertical controls for the aerial process. Contours were processed with 2 ft contours. Boundaries were based on available file plans and subdivision plans, along with title report information provided by the client. The project will bring 80 affordable housing units to Kaloko Heights, funded by a HOME Investment Partnership allocation managed by the State of Hawaii's HHFDC.

Recent Civil engineering services included construction drawings; mass grading plans, NPDES permitting, trench backfill exhibits, and extensive water system redesign to include design and construction for the new water wells to DWS standards.



25. FIRMS INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	Sam O. Hirota, Inc.	Honolulu, Hawaii	Civil Engineering, Land Surveying, Aerial LiDAR

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE FIRMS QUALIFICATIONS FOR THIS SERVICE CONTRACT

(Present no more than 10 projects, with emphasis on previous City projects. Complete one Section F for each project.)

21. TITLE AND LOCATION (City and State)

Kona Airport Jet Centre

22. YEAR COMPLETED

PROFESSIONAL SERVICES

2019

CONSTRUCTION(If applicable)

N/A

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

Burns McDonnell
733 Bishop St., Suite 2150
Honolulu, HI 96813

b. POINT OF CONTACT NAME

Mr. John Bothof

c. POINT OF CONTACT TELEPHONE NUMBER

808-954-6656

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

Sam O. Hirota, Inc. provided topographic surveying and mapping, planning, programming, and scheduling, and civil engineering services for the Kona Airport project.

Survey work included Lots C-1 through C-4, including portion of Pao'o Street, U'u Street, and the mauka continuation of Ramp "L". Limits also included the area west of C-4. The total area of survey is approximately 39 acres. Portions of the survey are within the Air Operations Area (AOA) requiring close coordination with airport personnel necessitated by controlled security access.

SOH provided civil engineering consulting services for the planning phase of the project, which included ongoing meetings and coordination with Keahole FBO 1 LLC. These services included: meetings with personnel from the Department of Transportation Airports (DOTA), Kona District; obtaining record drawings from DOTA; coordinating with the Planning Department on requirements for SMA and Plan Approval process; coordinating with Department of Public Works on requirements related to grading and utility permitting; communicating with the Department of Water Supply on requirements and availability of water.

Planning, programming, and scheduling services included assisting Burns McDonnell with both on-site and offsite civil works, permitting requirements, and schedules. Civil work included potable water, fire system, sewer, drainage, site improvements, including roadways access, parking and accessible parking/access.



25. FIRMS INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	Sam O. Hirota, Inc.	Honolulu, Hawaii	Civil Engineering, Topographic Land Surveying

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS

26. NAMES OF KEY PERSONNEL	27. ROLE IN THIS CONTRACT	28. EXAMPLE PROJECTS LISTED IN SECTION F									
		1	2	3	4	5	6	7	8	9	10
Dennis I. Hirota, PhD, PE, LPLS	Quality Assurance	X	X	X	X	X	X	X	X	X	X
Steve Tomei, LPLS	Project Manager	X	X	X		X		X	X	X	X
Winston Ing, PE, LPLS	Project Civil Engineer	X	X		X	X		X	X	X	
Ronald Guerrero	CAD/GIS Manager	X	X			X				X	
Ray Sandla	3D Laser Scanning Manager	X					X			X	

29. EXAMPLE PROJECTS KEY

NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)	NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)
1	Kona Village Civil Infrastructure Restoration Kaupulehu, North Kona, Hawaii	6	Varsity Center Digital Documentation
2	Kaena & Kawaihapai, Mokuleia, Waialua, Oahu, Hawaii	7	Kamakoa Master Planning, Waikoloa Village, South Kohala, Hawaii
3	Boundary Studies and Surveys for Various Army Installations Oahu, and Island of Hawaii, Hawaii	8	National Pollutant Discharge Elimination System (NPDES); Small Municipal Separate Storm Sewer Systems (MS4) Permit, Oahu, Hawaii
4	Galbraith Farm Lots Wahiawa, Hawaii	9	Kaloko Heights, Aerial LiDAR Topographic Survey & Mapping, Kailua-Kona, Hawaii
5	Hawai'i DOT Bridge and Cross Section Surveys – Islands of Oahu and Hawaii, Hawaii	10	Kona Airport Jet Centre

County of Hawaii
Notice to Providers of Professional Services FY 2023-2024

5. Promotional and Descriptive Literature

THE USE OF 3D REMOTE SENSING TECHNOLOGY

Sam O. Hirota, Inc. (SOH) respectfully suggests the use of 3D remote sensing technologies, for which the firm owns the hardware and software and maintains the expertise necessary for successful implementation. These technologies are proven strategies to improve the efficiency and effectiveness of client projects, as well as the safety of personnel working in the field.

3D laser scanning is the process of rapidly capturing three-dimensional positional and measurement data of objects such as buildings and sites using a laser scanning sensor. Millions of x, y, and z data points are collected, then aligned together to form a "point cloud" of highly accurate, measurable 3D information. With the addition of a synchronized color camera, full spectrum RGB colors can be applied to the scans, making them more realistic, comprehensible, and usable. There are many types of 3D scanning instruments. SOH can utilize all of the below examples:

- Terrestrial - mounted on a tripod, these scanners quickly capture large amounts of data at specific locations. The scanners are then moved to multiple locations, the information later merged to form an overall cloud of accurate 3D information
- Mobile – SOH owns three types of mobile data capture devices:
 - a scanner and high-resolution photographic array secured to an SOH vehicle that can drive down a road and continuously gather 3D information quickly, efficiently, and safely. Large road areas and associated infrastructure assets can be captured in a short amount of time. (All SOH scanners feature Class 1, eye-safe lasers.)
 - a **NavVIS M6 trolley** with 4 LiDAR scanners and 6 cameras meant to capture large indoor and outdoor spaces quickly, efficiently, and accurately
 - The very newest “wearable” mobile mapping system, the **NavVIS VLX** carrying 2 multi-layer LiDAR sensors and 4 cameras designed to complement the M6 by capturing smaller spaces and multi-level areas. NavVIS data from both devices can be added together to form comprehensive 3D color representations

The main contributions of laser scanning to client goals is the technology's ability to gather precise 3D data (if performed utilizing appropriate surveying practices, sub-millimeter accuracy can be achieved) in a short amount of time. Measurements of length, area, and volume can be conducted in the office, limiting the necessity of challenging, and often costly, repeat site visits.

SOH has wide-ranging 3D color laser scanning experience on a variety of projects:



New technology available now from
SAM O. HIROTA, INC.

Next Generation 3D Scanning

The NavVIS M6 and new VLX are SLAM-based indoor mapping systems designed for high-quality all-in-one reality capture of commercial and industrial properties

Control button

Display

Trigger button

Power button
Ethernet port
USB port

Belt hook

Battery release

Cameras

Head lock

Display

SSD drive

Power button

Kickstand

Handlebars

Head unit
release button

Clamping lever

Rear wheels





Project	Use
International Market Place Historic Banyan Trees	3D models in Sketchup format for use by architects mandated to incorporate historic banyan trees in their design
Hulihe'e Palace	Digital survey of historic structure to determine earthquake damage
Kailua Methodist Church	Georeference files available within RiPano
Makena Beach and Golf Resort	Complete digital capture of hotel for use by structural engineers planning renovation/remodeling of the hotel
Punahou Winne Units	Complete digital capture for historical, institutional advancement, marketing and an interactive virtual tour
Four Seasons, Maui	Scan to 2D drawings for as-built condition assessment of luxury suites for comparison to design drawings and eventual remodel
Cathedral of Our Lady of Peace	Thermal scans + images for Cathedral renovations
Sacred Heart's Chapel	Thermal scans + images for historic stained-glass renovation
USS <i>Arizona</i> Memorial	Topographic survey, laser scanning for complete digital capture effort as well as a virtual tour
Kaneohe MCBH Historic Hangers	2D Sections, elevations in AutoCAD for inclusion in Historic American Building Survey documentation
Queen's Medical Center	Laser scanning and photography of Pauahi Tower 5 th floor geriatric ward and spaces above false ceiling. Existing condition documentation for new air system installation clash detection information
Queen's Medical Center West	<ul style="list-style-type: none"> - Terrestrial scanning produced point clouds aligned with topographic survey to assist in planning for new parking and external access - Aerial photos were merged with scans and survey to provide overall current conditions
McKinley High School Building W	Captured as-built conditions and on-going renovations to the historic site
Embassy Suites Penthouses	Interior and exterior digital capture for redevelopment
Kamehameha Schools – Akahi Dining Hall	As-built condition assessment and basis for new Autodesk Revit model
City and County of Honolulu, Environmental Services - Kapolei Pump Station	Complete digital capture for potential asset management, personnel training, safety inspections, communications, etc.
City and County of Honolulu, Board of Water Supply	Digital capture of historic 1917 Beretania Street Pumping Station building interior and exterior
Dillingham Ranch – Makai	Laser scanning and photography of makai parcel for visualization, measurement, and marketing
Four Seasons Hualalai	Mobile mapping platform used to laser scan and photograph fire lane and select exterior areas of the entire resort complex for use in planning, visualization and marketing
Hawai'i State Art Museum	Mobile mapping platform used to digitally capture exterior and select interior spaces of HiSAM for topographic survey support, visualization, and marketing
City Financial Rooftop MEP	Combined mobile mapping and terrestrial laser scanning for use in Revit 3D model creation

NavVIS Reality Capture

Sam O. Hirota, Inc. is proud to represent NavVIS in Hawai'i. Investment in this state-of-the-art technology allows fast, accurate capture of interior and exterior spaces.

With the M6's ability to quickly capture large spaces and the new VLX's complementary smaller/multi-level capability, SOH can offer full digital capture of any size/configuration of space.

While the digital capture of spaces is important to the efficient use of client time and money, an equally, if not more important aspect of reality capture is the ability of clients to use the information in meaningful ways.

NavVIS's web-based companion software Indoor Viewer offers clients the following features:



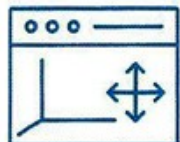
Fully immersive

The unique combination of 360° images and 3D scan data provides a realistic experience and lets users move through the digital space as if they are on site



Intuitive

The intuitive user interface makes it easy to use the advance functions to browse, enrich, and interact with digital buildings



Web-based

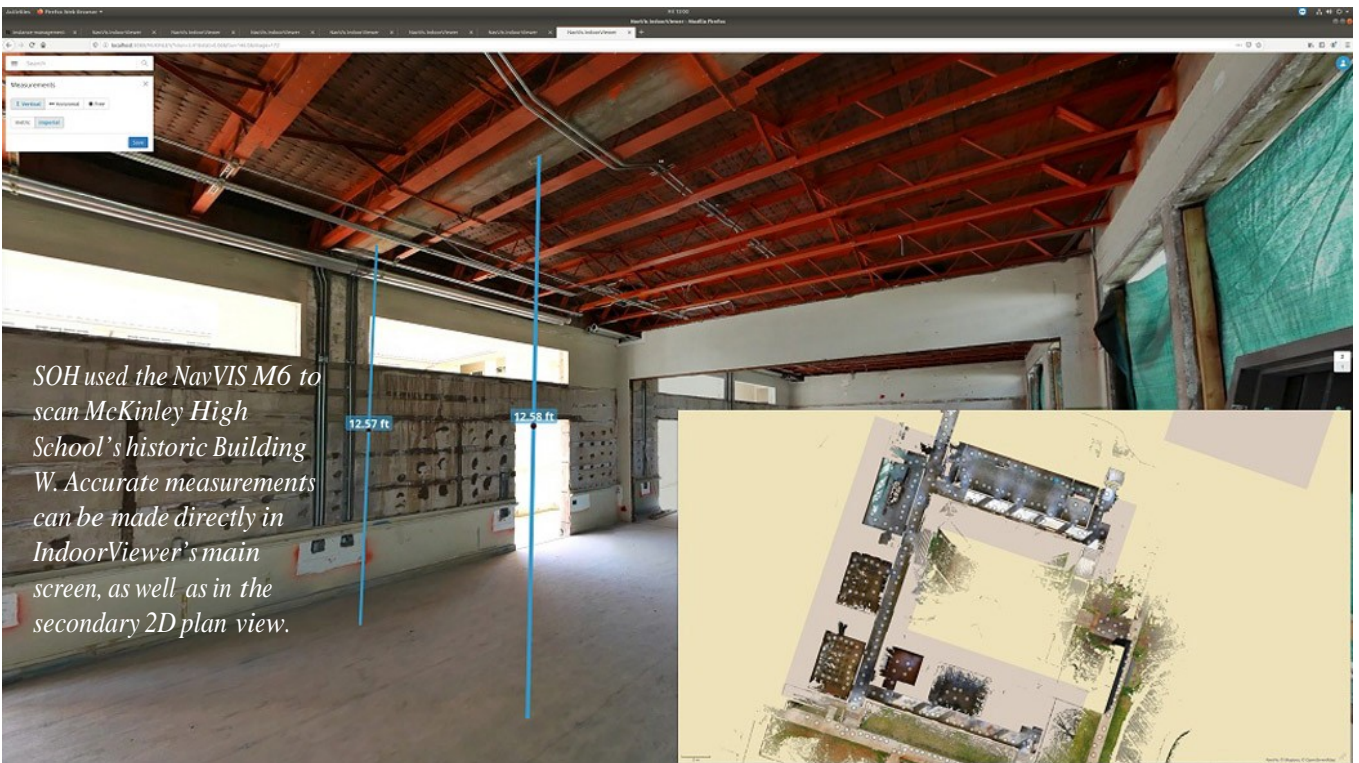
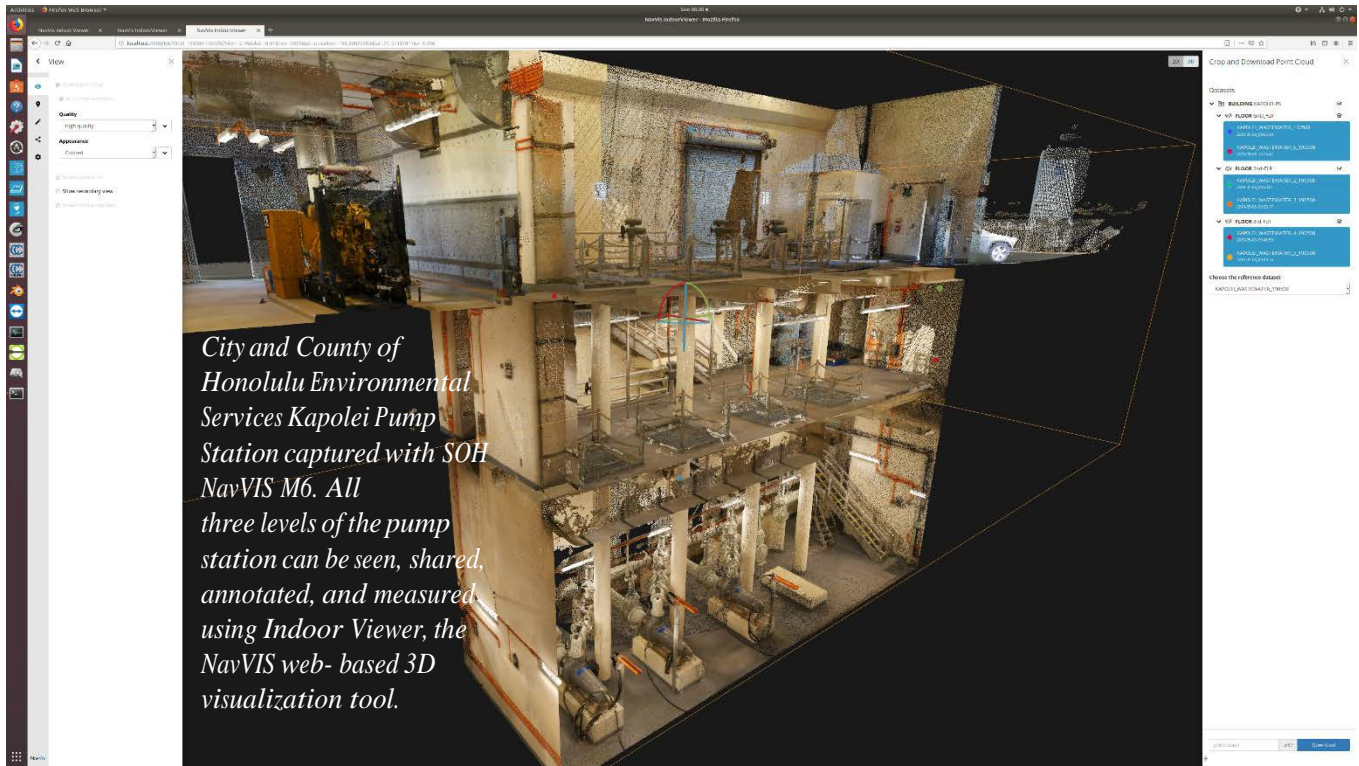
Web-based software displays 3D buildings in any compatible browser without the need to install software or download plugins

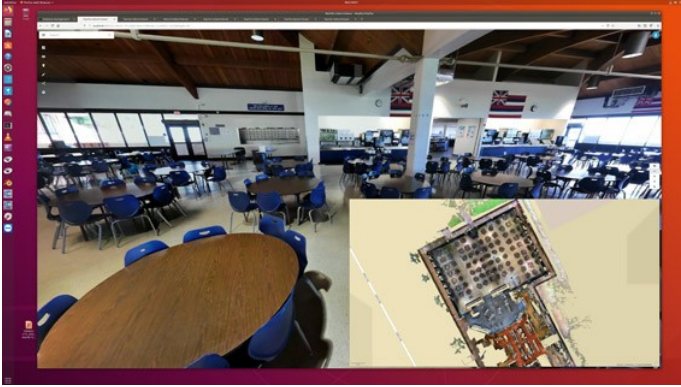
New technology available now from
SAM O. HIROTA, INC.

NavVIS



Examples of SOH projects

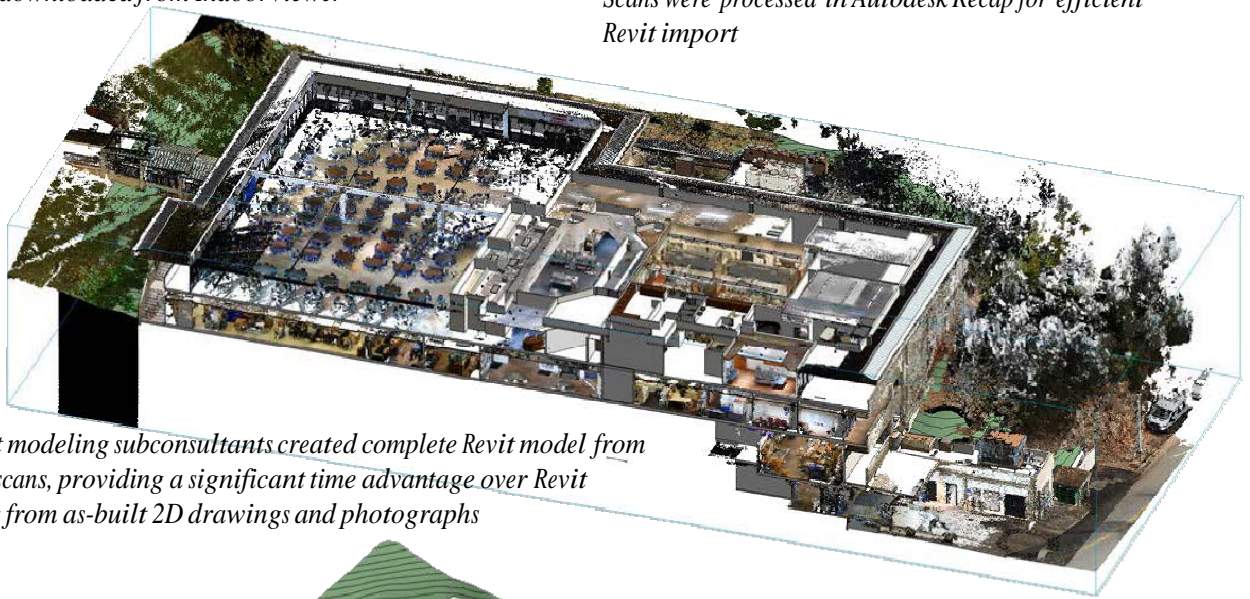




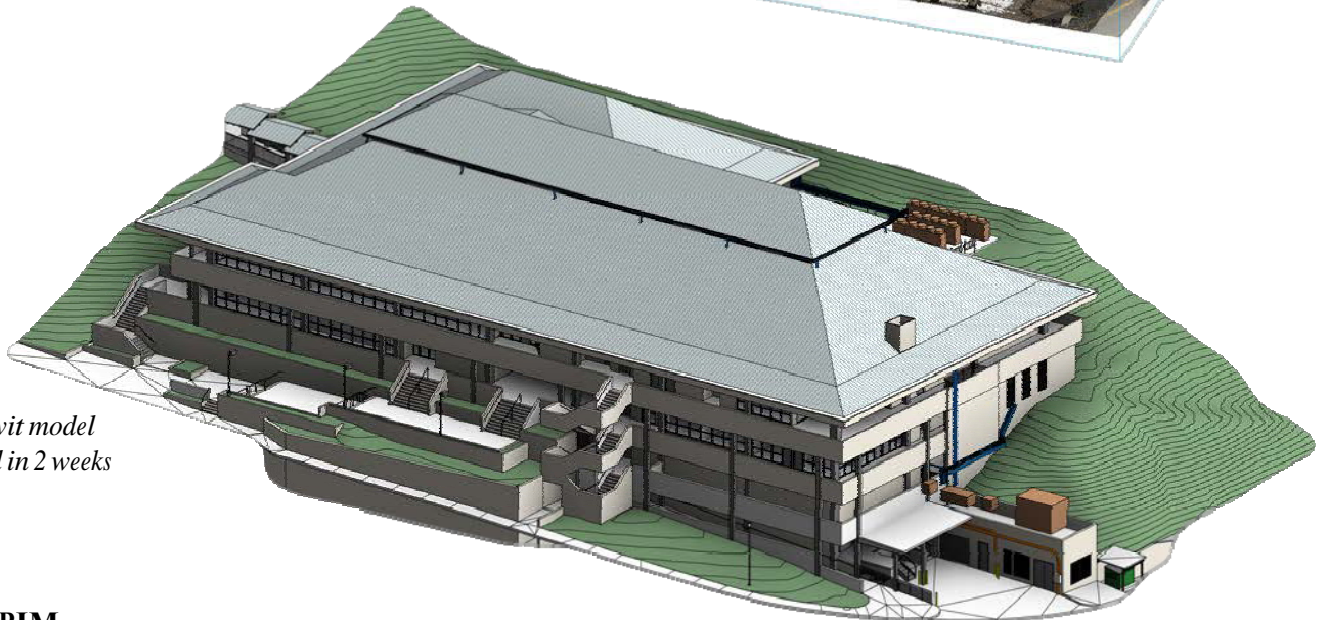
Full-color, geospatially referenced laser scans were combined, aligned, then downloaded from IndoorViewer



Scans were processed in Autodesk Recap for efficient Revit import



SOH Revit modeling subconsultants created complete Revit model from the laser scans, providing a significant time advantage over Revit modeling from as-built 2D drawings and photographs



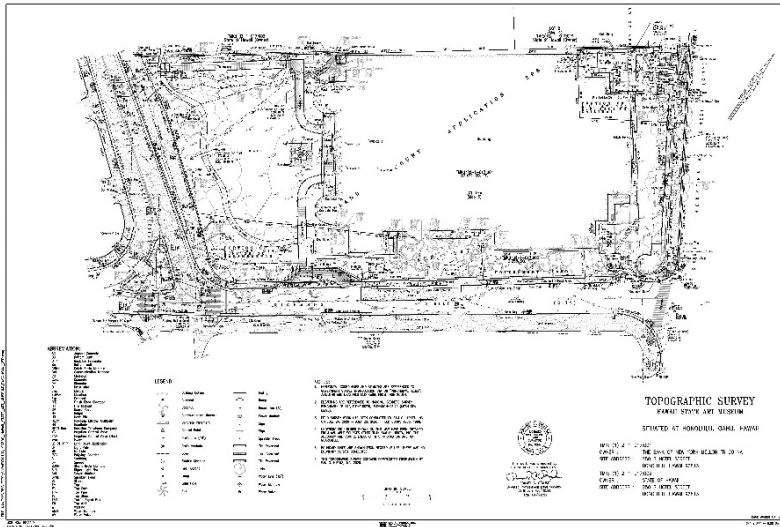
Full Revit model created in 2 weeks

Scan to BIM

For those interested in an efficient laser scan to Building Information Model workflow, IndoorViewer allows point clouds to be downloaded and imported into Autodesk Revit. In 2019, SOH completed scan-to-BIM for Kamehameha Schools Akahi Dining Hall (above).

Hawai‘i State Art Museum

Honolulu, Hawai‘i



In August of 2020, Sam O Hirota, Inc. conducted a Topographic Survey of a portion of the project area being the grounds around the “Hawaii State Art Museum”, and fronting roads Hotel Street and Richard Street. The field survey located with elevations, improvements, trees with diameter of 0.5-feet and greater, top and bottom of walls and slopes, measured utility inverts and pipe sizes, and determined ground topography. The project was surveyed at 1-inch=20-feet scale. A plan delineating located features and improvements, and contours at 1-foot intervals, as related to subject boundaries, was produced and provided. Deliverables consisted of Civil3D “DWG” file and PDF files of the topographic survey.

In addition to a detailed topographic survey, SOH utilized its company-owned Navis mobile mapping system to laser scan and capture full- color spherical images of the exterior and selected interior elements of the building and surrounding grounds.

The resulting color point clouds and 360° images can be viewed, measured, routed, geographically tagged, and more, all from the comfort, safety, and convenience of any supported internet browser. The point clouds can also be downloaded and used independently in the creation of:

- scan-to-BIM workflows
- as-built verification for remodelling/renovation
- 3D modeling

Top: Hawaii State Art Museum grounds and front entrance as seen in the online Navis IndoorViewer.

2nd from top: Topographic survey details.

Right above: Sculpture Garden area from the second floor Courtyard seen using IndoorViewer. Even though the Navis viewer is called IndoorViewer, the system is equally adept at capturing outdoor spaces. Right middle: Interior children’s creative space.



Client:
Urban Works Architects
Contact: Mr. John Ida

Services: Topographic Survey
3D Full-Color Laser Scanning, Spherical Imaging, Online Visualization



Breakthrough Visualization, Measurement, and Collaboration Tools

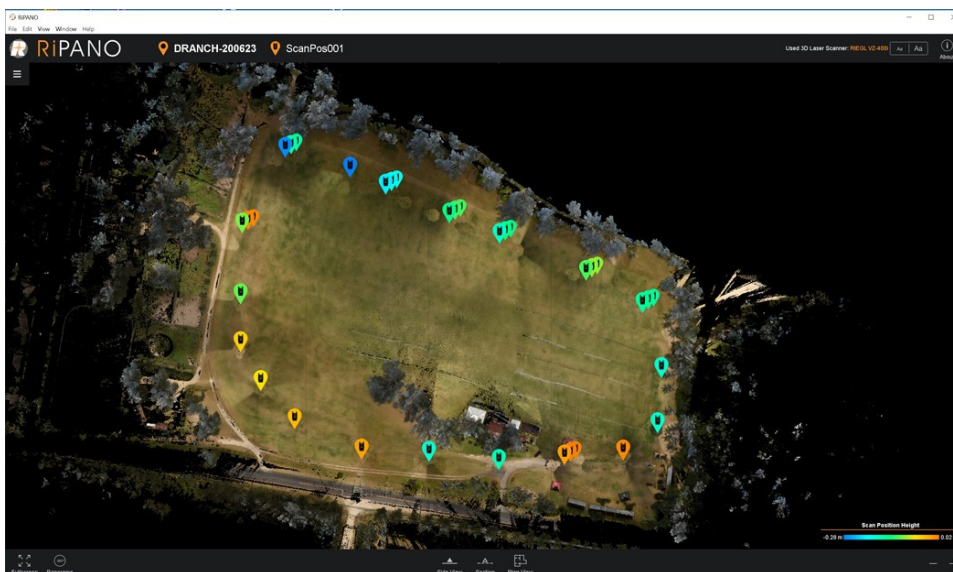
Sam O. Hirota, believes the ability of clients to *use the results of new and advanced technology* is critical to its acceptance and adoption. To that end, SOH utilizes the latest visualization tools that help clients' understanding of their digital “virtual twins”:

Riegl's RiPano, *no-cost software* that allows fast, easy visualization of terrestrial laser scan projects from a standard internet browser.

Advantages to the City and County of Honolulu:

- **Visualization and Exploration**
 - o The software runs plugin-free on any Windows, Mac, Android, or iOS device
 - o Exploring is easy by clicking on a scan position marker in Top View or Panorama View
 - o Allows data visualization in multiple ways, including reflectance (grayscale, one color or rainbow), True Color, or Camera
 - o KML files automatically created - scan positions can be seen in Google Earth
- **Measurement**
 - o Measurements tools are available for quick inspection
 - o Coordinate readouts can be converted to/from latitude/longitude/altitude to any coordinate system, including Hawaii State Plane
 - o Users can place markers, measure distances and paths in x, y, and z directions
- **Collaboration**
 - o Projects can be accessed online via a link, or
 - o SOH can provide a USB drive with all files; City and County personnel do not need to install any software and can launch a project from any Windows or Mac computer

Dillingham Ranch



In June, 2020, SOH 3D color laser scanned the makai polo grounds of Dillingham Ranch. Using RiPano, scan position markers can be seen within the software, left. While the representation looks like an aerial view, all data was captured at ground level; just one of the advantages of collecting x, y, and z positions for every point in the space.

Different ways to visualize data results in additional flexibility in the captured data's use. To the right is a full-color 360° image stitched together from 7 separate photographs. The photos are taken simultaneously with the laser scan, providing fully measurable photos in a familiar and useful context.



The same scan position showing measurements taken directly in the software, bottom right. The image is draped over the laser scan data resulting in a familiar yet accurately measurable scene. Measurements can be made directly in the software.



Each scan position and panoramic image took 45 seconds to capture and the entire project, 36 separate scan positions took approximately 1 hour to complete.

ARCHITECT-ENGINEER QUALIFICATIONS

PART I – CONTRACT SPECIFIC QUALIFICATIONS

A. SERVICE CATEGORY INFORMATION

1. TITLE AND LOCATION (*City and State*)

County of Hawaii, Professional Services FY 2023-2024

2. PUBLIC NOTICE DATE

June 1, 2023

3. PROJECT CATEGORY

Civil Engineering, Land Surveying

B. POINT OF CONTACT

4. NAME AND TITLE

Dennis I. Hirota, Ph.D., PE, LPLS, President

5. NAME OF FIRM

SAM O. HIROTA, INC.

6. TELEPHONE NUMBER

808.537.9971

7. FAX NUMBER

808.524.6313

8. E-MAIL ADDRESS

dennishirota@gmail.com

C. PROPOSED TEAM

(THIS SECTION MUST BE COMPLETED FOR ALL PROJECT CATEGORIES EXCEPT PROJECT CATEGORY 18-28ESO AND 18-29ESO)

	(Check)			8. FIRM NAME	9. ADDRESS	10. ROLE IN CONTRACT
	Prime	J-V PARTNER	SUB- CONTRACTOR			
a.	✓			Sam O. Hirota, Inc.	864 South Beretania St. Honolulu, HI 96813	-Project Management, QC -Control Surveys -Cadastral and Land Parcel Mapping -Digital Terrain Modeling -ArcGIS, CADD -Terrestrial GNSS GPS -Civil Engineering -LEED Consultant Hawaii Registered Civil Engineers Hawaii Registered Land Surveyors Hawaii Land Court Surveyors
b.	✓					Historic American Building Surveys 3D LIDAR Scanning for As-Built Documentation Terrestrial Spherical Imaging Mobile 3D Spherical Imaging

D. ORGANIZATIONAL CHART OF PROPOSED TEAM

(Attached)

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION AT YOUR DISCRETION. ATTACH ADDITIONAL SHEETS AS NEEDED

STATEMENT OF QUALIFICATIONS (SOQ)

Sam O. Hirota, Inc. (SOH) was established in 1963 as a Honolulu-based consulting Civil Engineering and Land Surveying firm. For the past 60 years, the firm has executed a wide range of engineering, planning, surveying, and mapping projects throughout Hawaii, the Trust Territories, and the South Pacific. Projects have served Federal, State, and local governments, and the private sector.

SOH is a self-certified small business (SB) under NAICS Code 541330 for Civil Engineering and 541370 for Land Surveying and Mapping services. Please see the System for Award Management (SAM) website for further details about the firm:

Sam O. Hirota, Inc.
DUNS: 062904156 CAGE Code: 8N624
Status: Active
Expiration Date: 06/27/2024

Civil Engineering

For 60 years, SOH has provided complete consulting civil engineering services that focus on careful planning, individually tailored solutions, and diligent follow-up for its clients. The firm continues to strive to maintain quality, accuracy, and economy. In addition to its private, City and County of Honolulu, and State of Hawaii projects, SOH has over thirty years of Federal IDIQ contract experience with USACE, NAVFAC, National Park Service, USPS and USCG.

SOH has a wide range of experience and expertise in the follow civil engineering services:

- Master planning, including site analysis
- Support for environmental assessments (EA) and environmental impact statements (EIS)
- Flood studies
- Drainage studies
- HEC-RAS hydraulics calculations and study
- FEMA Letter of Map Revisions (LOMR) permitting and approvals
- National Pollutant Discharge Elimination System (NPDES) permitting and approvals
- Erosion control plans and best management plans
- Drainage systems
- Grading reports
- Earthwork calculations
- Site retaining walls
- Low impact development systems, including detention and retention systems
- Water supply systems
- Water distribution and transmission systems
- Wastewater treatment systems, distribution systems, and pump stations
- Fire protection systems
- Antiterrorism force protection physical security of facilities
- Site related outdoor sports and recreation facilities
- Roads, access and service drive design including curbs, gutters, and sidewalks
- Traffic control planning
- LEED Sustainable Site design, including LEED Platinum certified projects.

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION AT YOUR DISCRETION. ATTACH ADDITIONAL SHEETS AS NEEDED

STATEMENT OF QUALIFICATIONS (SOQ)

Land Surveying Services

Sam O. Hirota, Inc. (SOH) has the experience to provide various types of surveying and mapping services, which include boundary, topographic, utility, control, and ALTA/NSPS Land Title surveys, FEMA Elevation Certification, land parcel, cadastral, and easement mapping, setting benchmarks, and legal description writing. Also, through partnering with specialist in their field SOH is able to provide fixed-wing aerial/photogrammetric and hydrographic surveys if required.

State of Hawaii-specific capabilities include Land Court, File Plan system, Bureau of Conveyance recordation, and Shoreline certification.

SOH has an FAA-licensed UAV Remote Pilot on staff and can provide aerial mapping using 3 SOH owned UAVs, orthographic photography, corridor mapping, asset inventory, 3D building models, Digital Surface Models, and HD video. SOH's advantage over other firms claiming specialization in UAV mapping is the company's strict adherence to surveying practices and procedures.

SOH provides surveying and mapping services for real property transactions, planning studies, transportation projects, municipal infrastructure improvements, land development and resource management, working with and commercial and private clients as well as federal, state, and local agencies.

SOH is capable of working with various software and providing project data in multiple formats which include AutoCAD, Civil 3D, MicroStation, and ARC GIS. SOH staff is familiar with National CAD standards, federal, state and local government standards.

DELIVERABLES:

- Computer aided design (CAD) compliant to USACE A/E/C CAD Standard Release 4.0.
- MicroStation v8i .dgn file format
- AutoCAD 2011-2021, .dwg file format
- ArcGIS capabilities for geodatabase of surveyed boundary, traverse, easements, benchmarks and topographic features, utilities, hardscape improvements
- Federal Geographic Data Committee Compliant Digital Geospatial Metadata (FGDC-STD-001-1998 files for GIS and CADD files
- Spatial Data Standard for Facilities Infrastructure and Environment (SDSFIE) geodatabase development
- Digital terrain model (DTM) and contours analysis delivered in MicroStation v8i .dgn format
- Aerial data

Safety & Quality Control Planning and Implementation

- Site Safety and Health Plan, including:
 - Accident Prevention Plan, POD Form 248R
 - Administrative Plan, POD Form 184 Job Hazard Analysis
- POD Form 37-R Monthly Exposure Report
- Quality control maintenance system of equipment, calibration of system.
- Quality control and assurance program, independent QC personnel.

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION AT YOUR DISCRETION. ATTACH ADDITIONAL SHEETS AS NEEDED

PAST PERFORMANCE

Height Modernization Facilities, Digital Leveling, Phase 1, Oahu

State of Hawaii, Department of Transportation | Official Report Date: 08/22/2017

Client Contact: Mr. Christopher Guerin, State Land Boundary Surveyor, 808-692-7602

Mr. Christopher Guerin, State Land Boundary Surveyor, provided a PDF copy to SOH of the Oahu Digital Leveling Project Consultant Performance Evaluation on 8/22/17. In the evaluation, reproduced on the following page, Mr. Guerin rates SOH as Excellent for all factors in all three categories.

Mr. Guerin cites communications responsiveness, cooperation with HDOT personnel, completeness of Survey, Quality Control, and Accident Prevention plans, and an "...excellent grasp of the complexity of the digital leveling and the NGS manual that explains all the field and office procedures used daily."

Further, Mr. Guerin states that SOH, "...completed each phase of the contract in a timely and thorough manner", and that SOH employees, "...even field verified the leveling data with additional work at no cost to the DOT..."

Very simply and directly, Mr. Guerin writes, "Sam O. Hirota has met NGS specifications for digital leveling 2nd order class 1."

Mr. Guerin provided an Overall Rating of Excellent for SOH and marked the Recommendation" box, recommended for future work.

Boundary Study Surveys, Various Army Installations, Oahu, Hawaii

US Army Corps of Engineers - Honolulu | Official Report Date: 01/22/2014

Client Contact: Todd C. Barnes, Chief, E&C Division, Tammy Luke, Project Manager | 808-835-4078

Attributes rated	Rating
Surveying, Mapping & Geospatial	Very Good
Planimetrics	Very Good
Thoroughness of Site Investigation/Field Analysis	Very Good
Quality Control Procedures and Execution	Satisfactory
Plans Clear and Detailed Sufficiently	Satisfactory
Management and Adherence to Schedules	Very Good
Cooperativeness and Responsiveness	Exceptional
Quality and Accuracy of Imagery	Exceptional

RATING OFFICIAL REMARKS: PM Comments: Although the description of the project appears to be straight forward and easily accomplished, this project has turned out to be very complicated. The definition of a military installation boundary was not always clearly defined. Although standard boundary documents were used, Army unrecorded documents and easement discovery was very time consuming, and SOH committed overtime efforts to remain on schedule. Field surveying for installation boundaries included survey data in areas with restricted/limited access. Placing boundary monuments included areas with explosive hazards, and a qualified UXO guide was required in one instance. Obtaining imagery over a live range was a particularly difficult challenge to overcome as the restricted airspace provided limited opportunities. In addition, clear weather was required in order to gather the photos, thus an exceptional amount of planning and proactive engagement with the range was necessary. Schofield range has the most restricted airspace in Hawaii, and due to SOH team's standby readiness, high-quality imagery was acquired.

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION AT YOUR DISCRETION. ATTACH ADDITIONAL SHEETS AS NEEDED

With all the hurdles that SOH has had and continues to overcome, they remain professional, courteous, and responsive. SOH does not seek modifications readily; they work with us to provide the best quality submittals. They are always available to meet with us, and they are helpful in situations where solutions are required.

Pavement Management System and Street Condition Survey

Department of Facility Maintenance, City and County of Honolulu | Year Completed: 2012, 2014

Client Contact: Ross S. Sasamura, P.E, Director & Chief Engineer, 808-768-3343

Sam O. Hirota, Inc.(SOH) was contracted in 2012, and again in 2014 to provide pavement condition inspection/analysis and images of all **3,650 lane miles of City-maintained roads**. SOH completed the driving in three months for each project using its earthmine Mars Collection System. SOH subcontractor MGIS(Marker Geospatial) processed the pavement inspections through MicroPAVER and provided the City with a comprehensive Pavement Condition Index.

"It was very helpful working with Dr. Dennis Hirota and his team to understand the data acquisition process and how to work with the data in a system such as MicroPAVER. They were responsive and offered expert advice.... The contract was completed in a timely manner and to the City's satisfaction."
Ross S. Sasamura, P.E. Director and Chief Engineer, Department of Facility Maintenance.

Geodetic Control Survey of Primary and Secondary Airport Control Stations and Airport Mapping Survey of Ends of Runways 8R-26L, 8L-26R, 4R-22L, 4L-22R, HNL

State Of Hawaii, Department of Transportation, Airports Division | Year Completed: 2015

Client Contact: Lynette Kawaoka, Department of Transportation, Airports Division, 808-838-8818

Tasks included provision of general specifications, standards, and guidelines for collecting and preserving airport and related aeronautical data. The project contributed to the establishment of permanent geodetic control monumentation in form of PACS and SACS at specified airports as determined by FAA Regional Airports Division, and as detailed in AC 150/5300 – 16A.

SOH crews conducted airport mapping survey consisting of GPS survey equipment and crew, setting up on end of Runways 8R-26L (Reef Runway), 8L-26R, 4R-22L, and 4L-22R to perform surveys. Crews surveyed all features with Real Time Kinetic (RTK) GPS. RTK GPS was calibrated to PACS “HNL-BEN”, SACS “HNL-D” and “HNL-E”, and NGS stations "A 111" and "B 111". All information was collected and provided as attributes for pre-defined feature classes in an overall Autodesk Civil 3D drawing.

Hawaii Regional Security Operations Center, NSA, NCTAMS PAC, Wahiawa, Hawaii

NAVFAC Pacific | Official Report Date: 11/04/2010

Client Contact: Mr. Eric Sakanishi, NAVFAC Hawaii, 808-653-0400

Attributes rated
Overall Rating

Rating
Above Average

RATING OFFICIAL REMARKS: PM Comments: The DOR demonstrated outstanding project management, professionalism, engaged partnering and commitment to excellence throughout the design/construction stages of this complicated and large scaled project. The firm exhibited exceptional expertise and knowledge of the all-encompassing scope including off and on site access road improvements, infrastructure and utilities, multiple facility types including a visitor control center and main operations center. The firm's commitment to schedule, accuracy, and quality of the architect-engineering services supported the goal for design excellence and most importantly, customer satisfaction.

County of Hawaii
Notice to Providers of Professional Services FY 2023-2024

SAM O. HIROTA, INC. CAPACITY

Sam O. Hirota, Inc. is structured to leverage its surveying and engineering personnel to quickly respond to the requirements of its clients. In terms of large jobs, we have successfully completed 18 IDIQ contracts for federal agencies, including the U.S. Navy, U.S. Army, U.S. Air Force, and U.S. Coast Guard, since 1983. Services included civil engineering, land surveying, and aerial photogrammetry. Concurrently, the firm provided important surveying and engineering services for, among others, Red Hill Fuel Storage Facility to survey 71 monitoring points; laser scanned Four Seasons Hualalai Resort hotel rooms for the purpose of renovating and capturing as-built plans; Honolulu Airport Runways for preparation of Aeronautical Field Data Collection and Geographic Information System (GIS); digital leveling for the Island of Oahu 1 of 2 phases to reproduce Geodetic Digital Leveling Observations for approximately 108 miles; and educational institutions to expand and to renovate classrooms.


To accomplish these jobs successfully, project managers at SOH know that resource allocation, communication, and flexibility are their most important responsibilities. In 2012, the U.S. Army entrusted SOH with a comprehensive boundary study and survey contract (No. W9128A-09-D-0001, Task Order 0024) that will eventually include all Oahu Army installations. As Tammy Luke, Boundary Studies and Surveys Project Manager for the U.S. Army Corps of Engineers, noted in the project's Interim Performance Survey:

Although the project is only 10% complete, Sam Hirota provided excellent service in responding quickly to our requests for proposals, including revisions during the year end crunch. Funding for this project became available late in the fiscal year. Sam Hirota worked tirelessly through the weekends and late into the evenings to provide numerous proposals that met our changing requirements. They were available to us at anytime while we worked through the paperwork of awarding this large task order. Sam Hirota provided fair and reasonable proposals, which allowed us to expedite the overall process. They were very cooperative, flexible and a joy to work with. We highly recommend them to anyone requiring their services.

Despite its relatively small size, SOH can deploy up to four surveying teams at any one time. The teams' utilization of cutting-edge technology and sophisticated processing software saves both time and money, allowing SOH to efficiently manage multiple project priorities.

I. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

29. SIGNATURE 	30. DATE June 14, 2023
31. NAME AND TITLE Dennis I. Hirota, PhD, PE, LPLS, President	

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

1. SERVICE CATEGORY OF INTEREST

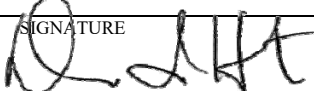
**County of Hawaii
Notice to Providers of Professional Services
Fiscal Year 2023-2024**

2a. FIRM (OR BRANCH OFFICE) NAME Sam O. Hirota, Inc.			3. YEAR ESTABLISHED 1963	4. DUNS NUMBER 062904156
2b. STREET 864 South Beretania Street			5. OWNERSHIP	
2c. CITY Honolulu			a. TYPE Corporation	
2d. STATE HI		2e. ZIP CODE 96813		b. SMALL BUSINESS STATUS SB
6a. POINT OF CONTACT NAME AND TITLE Dennis I. Hirota, PhD, PE, LPLS, President			7. NAME OF FIRM (If block 2a is a branch office) N/A	
6b. TELEPHONE NUMBER (808) 537-9971 ext. 217		6c. E-MAIL ADDRESS dennishirota@gmail.com		
8a. FORMER FIRM NAME(S) (If any) N/A			8b. YR. ESTABLISHED N/A	8c. DUNS NUMBER 062904156

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. No. of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
02	Administrative	2	0	A02	Aerial Photography; Airborne Data/Imagery Collection and Analysis	5
09	CADD Technician	2	0			
12	Civil Engineer	3	0	A06	Airports; Terminals and Hangars; Freight Handling	4
28	Geodetic Surveyor	2	0	A09	Anti-Terrorism/Force Protection	5
29	Geographic Information System Specialist	2	0	D07	Dining Halls; Clubs; Restaurants	1
38	Land Surveyor	5	0	E02	Educational Facilities; Classrooms	4
48	Project Manager	2	0	E09	Environmental Impact Studies, Assessments or Statements	2
				G01	Garages; Vehicle Maintenance Facilities	4
				H01	Harbors; Jetties; Piers, Ship Terminal Facilities	3
				H07	Highways; Streets; Airfield Paving; Parking Lots	4
				H08	Historical Preservation	3
				H09	Hospital & Medical Facilities	3
				H11	Housing	5
				H13	Hydrographic Surveying	2
				O01	Office Buildings; Industrial Parks	3
				S10	Surveying; Platting; Mapping; Flood Plain Studies	4
				T04	Topographic Surveying and Mapping	4
Total		18	0			

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS <i>(Insert revenue index number shown at right)</i>		PROFESSIONAL SERVICES REVENUE INDEX NUMBER			
a. Federal Work	5	1. Less than \$100,000		6. \$2 million to less than \$5 million	
b. Non-Federal Work	5	2. \$100,000 to less than \$250,000		7. \$5 million to less than \$10 million	
c. Total Work	6	3. \$250,000 to less than \$500,000		8. \$10 million to less than \$25 million	
		4. \$500,000 to less than \$1 million		9. \$25 million to less than \$50 million	
		5. \$1 million to less than \$2 million		10. \$50 million or greater	

12. AUTHORIZED REPRESENTATIVE
The foregoing is a statement of facts.

a. SIGNATURE 	b. DATE 6/14/2023
--	-----------------------------

c. NAME AND TITLE
Dennis I. Hirota, PhD, PE, LPLS, President

License Number
LS-9141

Expiration date
4/30/2024



STATE OF HAWAII DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
LAND SURVEYOR

DENNIS I. HIROTA
864 SOUTH BERETANIA ST
HONOLULU, HI 96813



SIGNATURE OF LICENSEE

License Number
PE-3377

Expiration date
4/30/2024



STATE OF HAWAII DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS

PROFESSIONAL ENGINEER
CLASS(ES): CE CIVIL

DENNIS I. HIROTA
864 SOUTH BERETANIA ST
HONOLULU, HI 96813



SIGNATURE OF LICENSEE

License Number
PE-11452

Expiration date
4/30/2024



STATE OF HAWAII DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
PROFESSIONAL ENGINEER

CLASS(ES): CE CIVIL

WINSTON M ING
462 KEOLU DR
KAILUA, HI 96734

SIGNATURE OF LICENSEE

License Number
LS-14082

Expiration date
4/30/2024



STATE OF HAWAII DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
LAND SURVEYOR

WINSTON M ING
462 KEOLU DR
KAILUA, HI 96734

SIGNATURE OF LICENSEE

License Number
LS-10544

Expiration date
4/30/2024



STATE OF HAWAII DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
LAND SURVEYOR

ROMMEL C OFALSA
98-410 KOAUKA LOOP APT 8-B
AIEA HI 96701

SIGNATURE OF LICENSEE

License Number
LS-11639

Expiration date
4/30/2024



STATE OF HAWAII DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
LAND SURVEYOR

STEVEN M TOMEI
1977 HALEKOA DR
HONOLULU, HI 96821



SIGNATURE OF LICENSEE

License Number
LS-20118

Expiration date
4/30/2024



STATE OF HAWAII DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
LAND SURVEYOR

ALIKA K GARO
47-476 KIALUA ST.
KANEHOE, HI 96744



SIGNATURE OF LICENSEE

License Number
PE-19497

Expiration date
4/30/2024



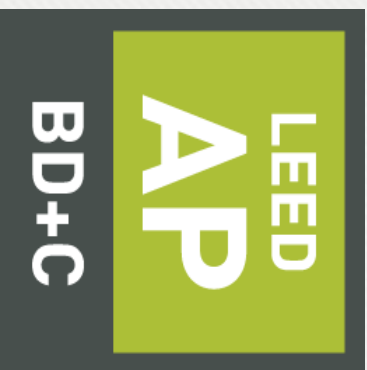
STATE OF HAWAII DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS

PROFESSIONAL ENGINEER
CLASS(ES):

MICHAEL CHIN ERORITA
2211 ALA WAI BLVD APT 914
HONOLULU, HI 96815



SIGNATURE OF LICENSEE



GREEN BUSINESS CERTIFICATION INC. CERTIFIES THAT

Winston Ing

HAS ATTAINED THE DESIGNATION OF

LEED AP[®] Building Design + Construction

by demonstrating the knowledge and understanding of green building practices and principles needed to support the use of the LEED[®] green building program.

10669107-AP-BD+C

CREDENTIAL ID

06 JUN 2019

ISSUED

05 JUN 2025

VALID THROUGH

A handwritten signature in black ink, reading 'Peter Templeton'.

PETER TEMPLETON
PRESIDENT & CEO
U.S. GREEN BUILDING COUNCIL & GREEN BUSINESS CERTIFICATION INC.