Sea Engineering, Inc.

Makai Research Pier • Waimanalo, Hawaii 96795-1820 • E-mail: sei@seaengineering.com
Phone: (808) 259-7966 / FAX (808) 259-8143 • Website: www.seaengineering.com

June 21, 2023

Mr. Talmadge Magno, Civil Defense Administrative Officer
County of Hawaii
920 Ululani Street
Hilo, Hawaii 96720

Subject: Professional Services, Fiscal Year 2023-2024

Dear Mr. Magno:

This is in response to your solicitation for professional services dated June 1, 2023. We would be pleased to provide professional engineering services to the County of Hawaii, Civil Defense Department during Fiscal Year 2023-2024 (July 1, 2023 to June 30, 2024).

Sea Engineering, Inc. (SEI) specializes in coastal engineering, marine and coastal environmental assessments, hydrographic and geophysical surveys, underwater inspection, marine construction, and boat and diving services.

- We are specifically interested in providing services to your department in the following area:

CD.2. Safety Engineering/General Physical Science (Hazard Mitigation Specialist) – (Ocean/ Coastal Engineering)

A Federal Standard Form SF330 is enclosed presenting our experience and qualifications along with a copy of the State of Hawaii, Professional License card for each licensed person referenced in our submittal.

In addition, our qualifications are also available at our website: **www.seaengineeering.com.**

We look forward to possibly assisting the County of Hawaii, Civil Defense during the coming fiscal year. Should you desire any additional information please contact me at 808-259-7966 or by email at cconger@seaengineering.com.

Very truly yours,

Chris Conger
Vice President

ARCHITECT – ENGINEER QUALIFICATIONS

PART I – CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

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

County of Hawaii
Notice to Providers of Professional Services

2. PUBLIC NOTICE DATE	3. SOLICITATION OR PROJECT NUMBER
June 1, 2023	**Fiscal Year 2023-2024 (July 1, 2023 to June 30, 2024)**

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE

Chris Conger, Vice President

5. NAME OF FIRM

Sea Engineering, Inc.

6. TELEPHONE NUMBER	7. FAX NUMBER	8. E-MAIL ADDRESS
(808) 259-7966		**cconger@seaengineering.com**

C. PROPOSED TEAM

(Complete this section for the prime contractor and all key subcontractors.)

(Check) Prime	(Check) J-V Partner	(Check) Subcontractor	12. FIRM NAME	13. ADDRESS	14. ROLE IN THIS CONTRACT
			a. Sea Engineering, Inc.	Makai Research Pier 41-305 Kalanianaole Hwy Waimanalo, HI 96795	Coastal and Ocean Engineering
			b. ☒ CHECK IF BRANCH OFFICE	Sea Engineering, Inc. 863 N. Nimitz Hwy Honolulu, HI 96817	Marine Construction, Boat and Diving Services
			c. ☐ CHECK IF BRANCH OFFICE		
			d. ☐ CHECK IF BRANCH OFFICE		
			e. ☐ CHECK IF BRANCH OFFICE		
			f. ☐ CHECK IF BRANCH OFFICE		
			g. ☐ CHECK IF BRANCH OFFICE		
			h. ☐ CHECK IF BRANCH OFFICE		
			i. ☐ CHECK IF BRANCH OFFICE		

D. ORGANIZATIONAL CHART OF PROPOSED TEAM

☐ *(Attached)*

E. RESUME OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH THIS FIRM
David A. Smith, Ph.D., P.E.	Coastal Engineer	24	15

15. FIRM NAME and LOCATION *(City and State)*

Sea Engineering, Inc.

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
Ph.D., University of Hawaii-Manoa, Ocean Engineering	Hawaii Professional Engineer
M.S., University of Hawaii-Manoa, Ocean Engineering	Guam Professional Engineer
B.S., University of Hawaii-Manoa, Mathematics	California Professional Engineer

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

Member – ASCE PADI Open Water Diver Certification, Nitrox Certification

19. RELEVANT PROJECTS

a.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Laupahoehoe Harbor Repair Design Laupahoehoe, Hawaii	2020 to present	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

In 2019, USACE retained the services of Nagamine Okawa Engineers, Inc. and Sea Engineering, Inc. (SEI) to evaluate the condition of the existing breakwater, develop and compare alternative repair plans, and develop conceptual repair plans and rough order of magnitude construction costs under the U.S. Army Corps of Engineers (USACE) Operations & Maintenance (O&M) program. In 2020, USACE retained the services of Cardno GS, Inc., and SEI to develop the repair plan through final design.
Cost:$141,640 Role: Project Manager/Coastal Engineer

b.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
Hilo Harbor Breakwater Repair Hilo, Hawaii	2020 to present	n/a
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

Sea Engineering, Inc. (SEI) has been contracted by Cardno GS and the U.S. Corps of Engineers (USCOE) to investigate the existing breakwater condition, and to develop alternative plans to repair the breakwater.
Cost: $93,888 Role: Project Manager

c.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Ala Moana Park Sand Replenishment and EIS Ala Moana Beach Park, Oahu	2017 to present	n/a
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

Sea Engineering, Inc., was contracted by Belt Collins to support the City and County of Honolulu efforts to improve Ala Moana Beach Park. Work tasks include sand source investigations, determination of sand recovery and transport methodology, investigation of existing beach conditions and characteristics, analysis of coastal engineering design parameters, design of the beach nourishment plan, water quality assessments, EIS input and preparation of necessary Federal, State and City and County permit applications.
Cost: $ 78,200 Role: Coastal Engineer

d.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Waikoloa Beach Management Plan Waikoloa, Hawaii	2017 to preesnt	n/a
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

During a tsunami in March 2011 the beach at Anahoomalu Bay was severely eroded. A 200-foot-wide breach was created through the beach and into the fishpond. Much of the fishpond rock wall which acted as a backstop for the beach was destroyed. Following completion of repairs, the beach has been relatively stable. To ensure the continued stability of their beach, and address concerns about sea level rise, the Waikoloa Land Company and Waikoloa Beach Association have contracted Sea Engineering to develop a long-term plan for management and maintenance. Work includes Beach change monitoring, coastal assessment and preliminary concept plan, offshore sand survey, development of a detailed beach maintenance/management plan, environmental assessment and permit application, and detailed design and construction documents.
Cost: $36,760 Role: Coastal Engineer

e..

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Federal Coastal Navigation Structure Inspections Hawaiian Islands, Guam, CNMI, &American Samoa	2015, 2016, 2017	n/a
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

Sea Engineering was contracted to perform inspections of 24 federal coastal navigation structures (CNS) throughout Hawaii, Guam, Rota, and American Samoa operated and maintained by the U.S. Army Corps of Engineers (USACE), Pacific Ocean Division (POD), including Hilo, Kaiwaihae, Laupahoehoe, Pohoiki harbors. The purposes of the inspections were to verify the current condition of the structures, locate areas of concern on each structure, and identify and recommend future maintenance requirements.
Client: USACE, KAI Hawaii Role: Project Manager, Coastal/Design Engineer

E. RESUME OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH FIRM
Christopher Goody, P.E.	Coastal /Ocean Engineer	26	15

15. FIRM NAME and LOCATION *(City and State)*

Sea Engineering, Inc.

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
MS, Ocean Engineering, University of Hawaii at Manoa BS, Ocean Engineering, Florida Institute of Technology	Hawaii Professional Engineer (Civil)

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

American Society of Civil Engineers, Marine Technology Society
SCUBA certified

19. RELEVANT PROJECTS

a.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Hilo Wastewater Treatment Plant Outfall Inspection Hilo, Hawaii	2023	n/a
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

Sea Engineering, Inc (SEI), has been contracted by the County of Hawaii Wastewater Division to inspect the Hilo Wastewater Treatment Plant (WWTP) Ocean Outfall as part of the requirement in the facility's National Pollutant Discharge Elimination System permit (NPDES Permit No. HI 00213 77). Work tasks include a visual and dye inspection, and a color video documenting the inspection, a written report summarizing the results of the inspection noting all identified defects and their location.
Cost: $25,995 Role: Ocean Engineer

b.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
Kona Village Resort Beach Restoration Kailua-Kona, Hawaii	2021 to present	n/a
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

Sea Engineering Inc has been contracted by Kenney Wilson and the Kona Village Resort to develop a sand pushing plan for the beach fronting the Kona Village Resort to enhance its recreational use for visitors and the general public. Work tasks include site investigations, beach profile survey, beach sand sampling and laboratory analysis, develop sand pushing conceptual designs, and preparation and submittal of a SPA authorization to DLNR.
Cost: $30,000 Role: Project Manager/Ocean Engineer

c.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Laupahoehoe Harbor Repair Design Laupahoehoe, Hawaii	2020 to present	n/a
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

In 2019, USACE retained the services of Nagamine Okawa Engineers, Inc. and Sea Engineering, Inc. (SEI) to evaluate the condition of the existing breakwater, develop and compare alternative repair plans, and develop conceptual repair plans and rough order of magnitude construction costs under the U.S. Army Corps of Engineers (USACE) Operations & Maintenance (O&M) program. In 2020, USACE retained the services of Cardno GS, Inc., and SEI to develop the repair plan through final design.
Cost:$141,640 Role: Ocean Engineer

d.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Hilo Harbor Breakwater Repair Hilo, Hawaii	2019 to present	n/a
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

Sea Engineering, Inc. (SEI) has been contracted by Cardno GS and the U.S. Corps of Engineers (USCOE) to investigate the existing breakwater condition, and to develop alternative plans to repair the breakwater.
Cost: $93,888 Role: Ocean Engineer

e.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Keauhou Bay Offshore Mooring Design Keauhou Bay, North Shore, Island of Hawaii	2013	n/a
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

Sea Engineering was contracted by the Department of Land and Natural Resources (DLNR) to design offshore moorings for small boats in Keauhou Bay, Hawaii. The project required field site investigations, design of a gravity anchor system suitable for the rocky cobble substrate, design of a layout to maximize boat mooring capacity and Department of the Army permit acquisition.
Cost: $70,000 Role: Ocean Engineer

E. RESUME OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH THIS FIRM
Christopher L. Conger, Vice President	Project Manager/Coastal Scientist	18	12

15. FIRM NAME and LOCATION *(City and State)*

Sea Engineering, Inc.

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
M.Sc., University of Hawaii-Manoa, Coastal Geology B.S., University of Hawaii-Manoa, Geology and Geophysics	

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

100 ton near shore Captains License, Navy Second Class Diver Certification, Commercial Diver Certification (ADC Supervisor)

19. RELEVANT PROJECTS

a.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Scour Critical Bridges – Phase III Hawaii, Kauai, Maui, and Oahu	2021 to present	n/a
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

The Hawaii Department of Transportation has inspected 19 bridges across the State that were identified as Scour Critical. Sea Engineering, Inc, has been contracted by KAI Hawaii in support of the Scour Critical Bridge project and will prepare, submit, and track the required permit applications for eight total bridges – Kapue, Weoweopilau, Maliko, Hakipuu, Kaalaea, Kaukonahau, and Paumalu.
Cost: $534,995 Role: Project Manager

b.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Mauna Kea Shoreline Restoration Project Kohala Coast, Hawaii	2018 to present	n/a
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

Sea Engineering has been contracted to conduct detailed oceanographic and shoreline investigations to support implementation of these improvements. Work tasks included: 1. Wave analysis including deepwater wave climate, extreme deepwater wave height, numerical wave modeling of wave transformation to shallow water, wave runup, analysis of a particular extreme wave event that resulted in backshore flooding, and sea level rise impacts. 2. Site investigations including beach profile measurements, beach topographic survey, sand sampling and analysis, and assessment of coastal processes. 3. Development of a dune restoration plan.
Cost: $81,800 Role: Project Manager

c.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Laupahoehoe Boat Ramp Repair Hawaii (Big Island)	2014 to present	n/a
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

Laupahoehoe Park contains a boat launch ramp facility and protective, 250-foot-long breakwater built in 1988. In the summer of 2009, the launch ramp was closed due to hazardous conditions, including erosion of deep grooves in the ramp surface, exposed reinforcing rebar, and loss of traction. Sea Engineering, Inc. (SEI) and Arnold T. Okubo & Associates were contracted by the County of Hawaii to investigate site conditions of the ramp, repairs to the ramp, prepare the necessary environmental and permit documents, and provide support through construction.
Cost: 200,000 Role: Project Manager

d.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Ka'anapali Beach Nourishment Ka'anapali, Maui	2014 to 2023	n/a
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

Sea Engineering, Inc., was contracted by the Department of Land and Natural Resources to provide research, planning, permitting, and design services for the Ka'anapali Beach Restoration and Berm Enhancement project. The project consisted of restoring and enhancing the beaches along Ka'anapali shoreline to reduce or mitigate damage from erosion, and to increase available recreational beach.
Cost: $ 792,200 Role: Project Manager, Coastal Scientist

e.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Hawaii DOT Scour Critical Bridge Project – Bathymetry & Underwater Inspection and Permitting Hawaii Island, Kauai, & Oahu	2017	n/a
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

The State Department of Transportation is assessing up to 27 bridges across the State for possible scour repairs. Sea Engineering completed bathymetry surveys and underwater inspections of 5 bridges, including Kolekole Bridge and Paheehee Bridge on Hawaii Island, Wailua River Bridge and Wailua River Plantation Bridge on Kauai, and the Waimea River Bridge on Oahu. SEI is also responsible for requiring permits for the repair work.
Cost: $319,655 Role: Project Manger

E. RESUME OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH FIRM
Marc Ericksen, Senior Executive Officer	Project Manager	32	32

15. FIRM NAME and LOCATION *(City and State)*

Sea Engineering, Inc.

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
M.S. Coastal Geology B.S. Earth Sciences	

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

Member – ASCE, MTS, ACECH, SAME, WEDA, WEF, ASBPA
Certified Hydrographer – National Society of Professional Surveyors/Hydrographic Society of America

19. RELEVANT PROJECTS

a.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
Laupahoehoe Biological Surveys and Environmental Support Laupahoehoe, Hawaii	2020 to present	n/a
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

Sea Engineering, Inc., has been contracted by Cardno GS for USACE to perform reconnaissance biological surveys of the marine environment within and adjacent to the Laupahoehoe Harbor breakwater. Work tasks include generating habitat maps, conduct quantitative surveys, develop a report presenting key findings and to provide qualitative information that characterizes presence/absence and abundance of fish, macroalgae, and non-coral macroinvertebrates species.
Cost: $38,036 Role: Project Manager

b.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Laupahoehoe Boat Ramp Repair Hawaii (Big Island)	2014 to present	n/a
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

Laupahoehoe Park contains a boat launch ramp facility and protective, 250-foot-long breakwater built in 1988. In the summer of 2009, the launch ramp was closed due to hazardous conditions, including erosion of deep grooves in the ramp surface, exposed reinforcing rebar, and loss of traction. Sea Engineering, Inc. (SEI) and Arnold T. Okubo & Associates were contracted by the County of Hawaii to investigate site conditions of the ramp, repairs to the ramp, prepare the necessary environmental and permit documents, and provide support through construction.
Cost: 200,000 Role: Project Manager

c.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Hilo WWTP Outfall Inspection Hilo, Hawaii	2018	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

Sea Engineering, Inc. (SEI) was contracted by the Hawaii County Wastewater Division to perform an underwater inspection of the Hilo Wastewater Treatment Plant (WWTP) outfall. SEI performed inspections on the outfall in 1987, 1990, 2001, 2005, 2011, and 2012 and again in September of 2018. The inspection was conducted by a five-man dive team using SCUBA and covered the submerged length of the outfall.
Cost: $22,400 Role: Project Manager

d.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
Hawaii DOT Scour Critical Bridge Project – Bathymetry & Underwater Inspections, and Permitting Hawaii Island, Kauai, and Oahu	2016	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

The State Department of Transportation is assessing up to 27 bridges across the State for possible scour repairs. Sea Engineering completed bathymetry surveys and underwater inspections of 5 bridges, including Kolekole Bridge and Paheehee Bridge on Hawaii Island, Wailua River Bridge and Wailua River Plantation Bridge on Kauai, and the Waimea River Bridge on Oahu. SEI is also responsible for requiring permits for the repair work.
Cost: $319,655 Role: Project Manager.

e.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
Post – Storm Hydrographic Survey of Hilo Harbor Island of Hawaii	2015	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

Tropical Storm Iselle hit the east side of Hawaii Island on August 7, 2014. Concerns that the Hilo Harbor channel would be compromised by sunken debris or other obstructions due to the effects of the storm, SEI was contracted by AECOM/USACOE to provide a hydrographic survey to verify that the channel was clear of obstacles. Two survey engineers completed the survey mid-morning the day after the storm, and the results were communicated to the USACOE_POH. The Harbor was immediately re-opened.
Cost: $25,911 Role: Project Engineer/Hydrographer

E. RESUME OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH FIRM
Scott P. Sullivan, Senior Coastal Engineer	Project Manager/Coastal Engineer	50	50

15. FIRM NAME and LOCATION *(City and State)*

Sea Engineering, Inc.

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
M.S. Ocean Engineering B.S. Mechanical Engineering	

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

19. RELEVANT PROJECTS

a.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Pohoiki Boat Ramp Repair Relocation Study Puna District, Hawaii	2019 to present	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

Sea Engineering was contracted by the Department of Land & Natural Resources – DBOR to provide coastal engineering and environmental permitting services to determine the scope of work, environmental permitting requirements and cost estimates to repair or replace the Pohoiki Boat Ramp facility located along the southeast coast of Hawaii Island.
Cost: $42,960 Role: Project Manager/Coastal Engineer

b.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Waikoloa Beach Management Plan Waikoloa, Hawaii	2017 to present	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

During a tsunami in March 2011 the beach at Anahoomalu Bay was severely eroded, a 200-foot-wide breach was created through the beach into the fishpond depositing sand in the pond, and much of the fishpond rock wall which acted as a backstop for the beach was destroyed. Following completion of repairs, the beach has been relatively stable. To ensure the continued stability of their beach, and address concerns about sea level rise, the Waikoloa Land Company and Waikoloa Beach Association have contracted Sea Engineering to develop a long-term plan for management and maintenance of their valuable beach resource. Work includes beach change monitoring, coastal assessment and preliminary concept plan, offshore sand survey, development of a detailed beach maintenance/management plan, environmental assessment and permit application, and detailed design and construction documents.
Cost: $12,560 Role: Project Manager

c.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Waikiki Beach Restoration Honolulu, Hawaii	2016 to present	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

Sea Engineering, Inc., under contract to the State of Hawaii, Department of Land and Natural Resources in support of developing a more stable, resilient, and sustainable beach configuration in Waikiki. The general scope of work includes a feasibility study, environmental impact statement and conceptual design and permitting for beach improvements.
Cost: $799,300 Role: Project Manager/Coastal Engineer

d.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Anaehoomalu Bay Tsunami Damage Repair Anaehoomalu, Waikoloa, South Kohala, Hawaii	2016	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

Sea Engineering was contracted to obtain permits and do emergency repair work to Waikoloa Beach and the historical fishpond that was severely damaged by the 2011 tsunami. A sand-filled geotextile tube barrier was installed to close the gap in the beach. The emergency repair work was accomplished as an intermediate step to protect the fishpond while a long-term, permanent repair/restoration plan for the pond and beach can be developed. Permanent repairs include rebuilding the fishpond wall and restoration of the beach to its pre-tsunami condition.
Cost: 235,000 Role: Project Manager

e.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Keauhou Bay Offshore Mooring Design Keauhou Bay, North Shore, Island of Hawaii	2013	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE	☒ Check if project performed with current firm	

Sea Engineering was contracted by the Department of Land and Natural Resources (DLNR) to design offshore moorings for small boats in Keauhou Bay, Hawaii. The project required field site investigations, design of a gravity anchor system suitable for the rocky cobble substrate, design of a layout to maximize boat mooring capacity and Department of the Army permit acquisition.
Cost: $70,000 Role: Project Manager

E. RESUME OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH THIS FIRM
Morgan Stephenson	Coastal Engineer	12	12

15. FIRM NAME and LOCATION *(City and State)*

Sea Engineering, Inc.

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
M.S. Coastal Engineering M.S. Civil Engineering B.S. Civil Engineering	

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

Member – ASCE

19. RELEVANT PROJECTS

a.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Laupahoehoe Harbor Repair Design Laupahoehoe, Hawaii	2020 to present	n/a

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE ☒ Check if project performed with current firm

In 2019, USACE retained the services of Nagamine Okawa Engineers, Inc. and Sea Engineering, Inc. (SEI) to evaluate the condition of the existing breakwater, develop and compare alternative repair plans, and develop conceptual repair plans and rough order of magnitude construction costs under the U.S. Army Corps of Engineers (USACE) Operations & Maintenance (O&M) program. In 2020, USACE retained the services of Cardno GS, Inc., and SEI to develop the repair plan through final design.
Cost:$141,640 Role: Coastal Engineer

b.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Pohoiki Boat Ramp Repair Relocation Study Puna, Hawaii	2019 to present	n/a

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE ☒ Check if project performed with current firm

Sea Engineering was contracted by the Department of Land & Natural Resources – DBOR to provide coastal engineering and environmental permitting services to determine the scope of work, environmental permitting requirements, and cost estimates to repair and improve the Pohoiki Boat Ramp facility located along the southeast coast of Hawaii Island.
Cost: $42,960 Role: Coastal Engineer

c.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Kalepa Revetment and Seawall Repair Kalepa, Maui	2016 to present	n/a

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE ☒ Check if project performed with current firm

Sea Engineering, Inc. (SEI) was contracted by the County of Maui, Department of Public Works to provide the design and permitting of shore and road protection along an approximate 450-ft reach of the Piilani Highway at the Kalepa headland. Work included: Topographic survey, planning and permitting, project permits, and project design. Design elements include the shore protection revetment, shore protection seawall/retaining wall, roadway improvements (asphalt paving and guardrail installation), and additional bank stabilization and possible shore protection.
Cost: $461,872 Role: Coastal Engineer

d.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Kalaeloa Harbor Channel & Basin Hydrographic Survey Kalaeloa Harbor, Oahu	2019	n/a

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE ☒ Check if project performed with current firm

Sea Engineering, Inc (SEI) was contracted by Control Point Surveying for HDOT Harbors Division to provide a Multibeam hydrographic Survey of the channel and basin areas of Kalaeloa Barbers Point Harbor. Project deliverables included an xyz file of the bathymetry data and a color-coded DEM.
Cost: $20,300 Role: Coastal Engineer/Hydrographic Surveyor

e.

(1) TITLE and LOCATION *(City and State)*	(2) YEAR COMPLETED	
	Professional Services	Construction
Kahului Harbor Pier 2 High Spot Hydrographic Survey Kahului Harbor, Maui	2018	n/a

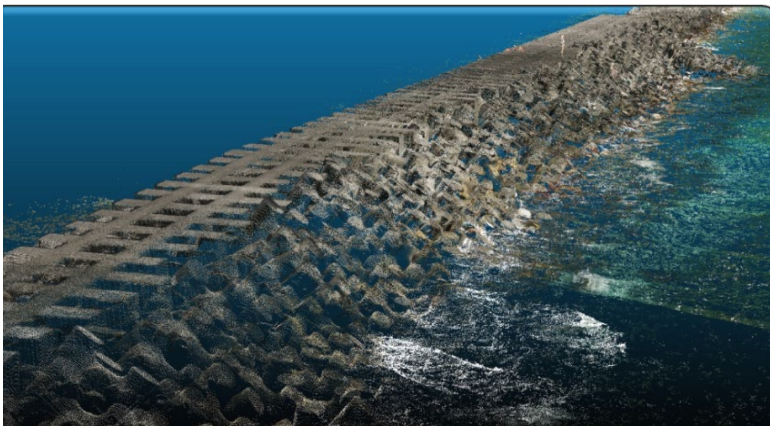
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) and SPECIFIC ROLE ☒ Check if project performed with current firm

Sea Engineering, Inc (SEI) was contracted by Control Point Surveying for HDOT Harbors Division to provide a hydrographic survey of a high spot in the Pier 2 vicinity of Kahului Harbor. Project deliverables included a xyz spreadsheet of bathymetry data.
Cost: $26,200 Role: Coastal Engineer/Hydrographic Surveyor

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY	
	1	
21. TITLE and LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION
Hilo Harbor Breakwater Improvements – Basis of Design Hilo, Hawaii	2021	

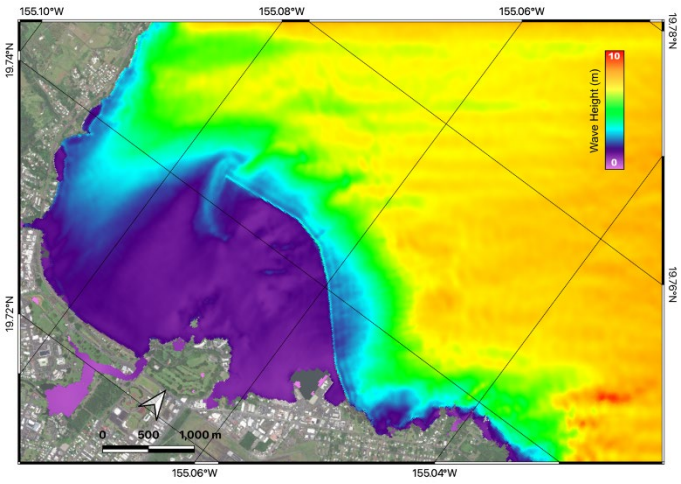
23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TEL
U.S. Army Corps of Engineers	Ben Berridge – Cardno GS	808-476-0067

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



The Hilo Harbor breakwater is an approximately two-mile-long rubble mound rock structure that protects inner Hilo Bay's port facilities from direct wave exposure.

Recent inspections of the Hilo breakwater have found areas of possible damage, mostly limited to local areas along the structure. Multiple visual inspections of the breakwater were conducted as part of the annual Project Condition Surveys (PCS), which were performed by a mix of USACE and Sea Engineering, Inc. (SEI) inspection teams in 2015, 2016, 2017, 2018, 2020, and 2021. Observed irregularities were found to include displaced armor units, attrition of supportive core stone (hollowing out of core), structure slumping, and excessive settling. As a result of the inspections, repairs have been recommended in numerous locations identified along the breakwater and vary in size from very localized to hundreds of feet in length.



In support of the need for repairs to the breakwater, SEI has been contracted by Cardno GS and the U.S. Army corps of Engineers to develop, analyze, organize and summarize all necessary design conditions, that will constitute an updated Basis of Design (BoD).

Cost: $381,189

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
	Sea Engineering, Inc.	Waimanalo, Hawaii	Coastal/Ocean Engineering

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY	
	2	
21. TITLE and LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION
Laupahoehoe Harbor Breakwater Repair Basis of Design Laupahoehoe, Hawaii	2021	

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TEL
U.S. Army Corps of Engineers	Cardno GS, Inc. – Ben Berridge	808-476-0067

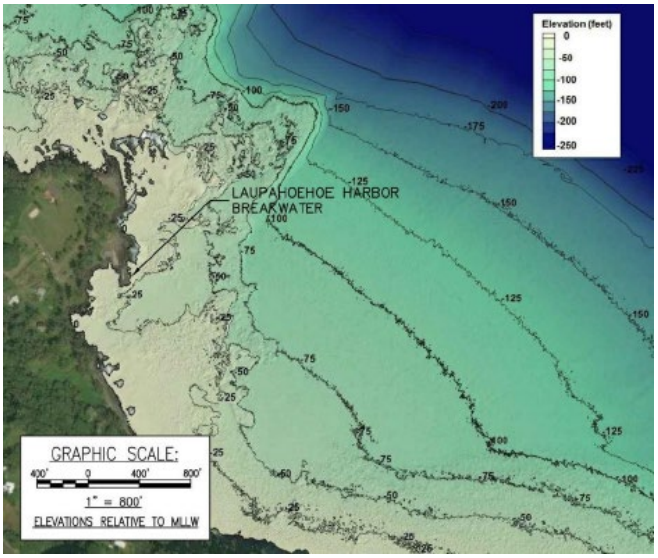
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Laupahoehoe Harbor is located on the Hamakua Coast on the northeast side of the Island of Hawaii, approximately 25 miles north-northwest of Hilo. The facility includes a boat launch ramp and protective, 200-foot-long breakwater that was built in 1988. The usability of the boat ramp has decreased since the facility was built. The breakwater has lost effectiveness in reducing wave energy at the boat ramp over time, and there has been a decrease in the functionality of the harbor to less than the design usability of 70%.

In 2019, USACE retained the services of Nagamine Okawa Engineers, Inc. and Sea Engineering, Inc. (SEI) to evaluate the condition of the existing breakwater, develop and compare alternative repair plans, and develop conceptual repair plans and rough order of magnitude construction costs under the U.S. Army Corps of Engineers (USACE) Operations & Maintenance (O&M) program.

In 2020, USACE retained the services of Cardno GS, Inc., and SEI to develop the repair plan through final design.

Cost: $141,640



	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
SE	Sea Engineering, Inc.	Waimanalo, Hawaii	Coastal/Ocean Engineering

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY	
	3	
21. TITLE and LOCATION *(City and State)*	22. YEAR COMPLETED	
Hawaii DOT Scour Critical Bridge Project – Bathymetry and Underwater Inspection Big Island, Kauai, Oahu, HI	PROFESSIONAL SERVICES	CONSTRUCTION
	2015 to present	n/a

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TEL
State of Hawaii, DOT	Kai Hawaii – Mike Hunneman	808-533-2210

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

The State Department of Transportation is assessing up to 27 bridges across the State for possible scour repairs. In support of this effort, Sea Engineering completed bathymetry surveys and underwater inspections of 5 bridges, including Kolekole Bridge and Paheehee Bridge on Hawaii Island, Wailua River Bridge and Wailua River Plantation Bridge on Kauai, and the Waimea River Bridge on Oahu. The underwater inspections were conducted by a three-man dive team using surface supplied air. Sea Engineering was also responsible for obtaining all required permits for the proposed repair activities.

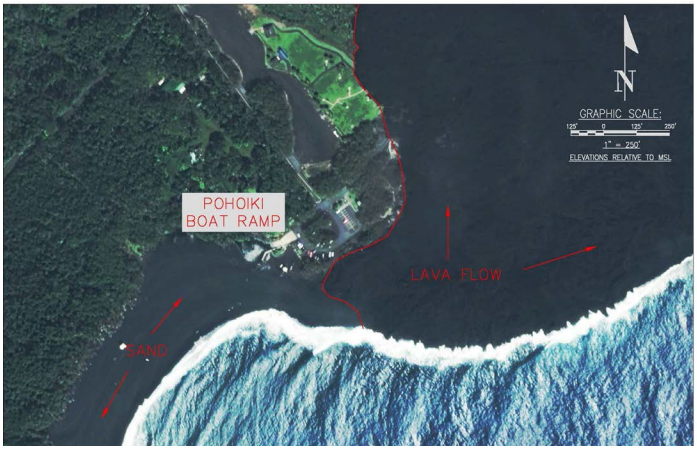
Cost: 319,655

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
SE	Sea Engineering, Inc.	Waimanalo, Oahu, Hawaii	Coastal/Ocean Engineering

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY	
	4	
21. TITLE and LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION
Pohoiki Boat Ramp Repair Relocation Study Puna District, Island of Hawaii	2019	

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TEL
State of Hawaii, DLNR	Edward Underwood (DOBOR)	808-587-1966

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



Hawaii Island's Kilauea Volcano lower East Rift Zone began erupting on May 3, 2018, ultimately transforming the landscape of the Lower Puna district on the southeast coast of the island. When the eruption stopped in August 2018 lava had covered more than 13 square miles of residential, farm, industrial and natural lands, and created some 875 acres of new land extending into the ocean. At Pohoiki Bay, site of the State DLNR-Division of Boating and Ocean Recreation (DOBOR) Pohoiki Boat Ramp facility, large volumes of volcanic debris (rocks, cobbles and sand) began to fill in the bay and the vicinity of the boat ramp. By the spring of 2019 the bay was filled, and the boat ramp was land locked by a 200-foot-wide black sand and cobble beach.

Sea Engineering was contracted by the Department of Land and Natural Resources, Division of Boating and Ocean Recreation, to prepare a concept screening study for re-opening the existing ramp facility or relocating it to an alternate site. The work involved coastal engineering to develop concepts for evaluation, and development of a rough-order-of-magnitude (ROM) construction cost estimate for the two concepts. Planning, design and permitting costs were also estimated.

Cost: $43,960

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
SE	Sea Engineering, Inc.	Waimanalo, Hawaii	Coastal/Ocean Engineering

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY
	5

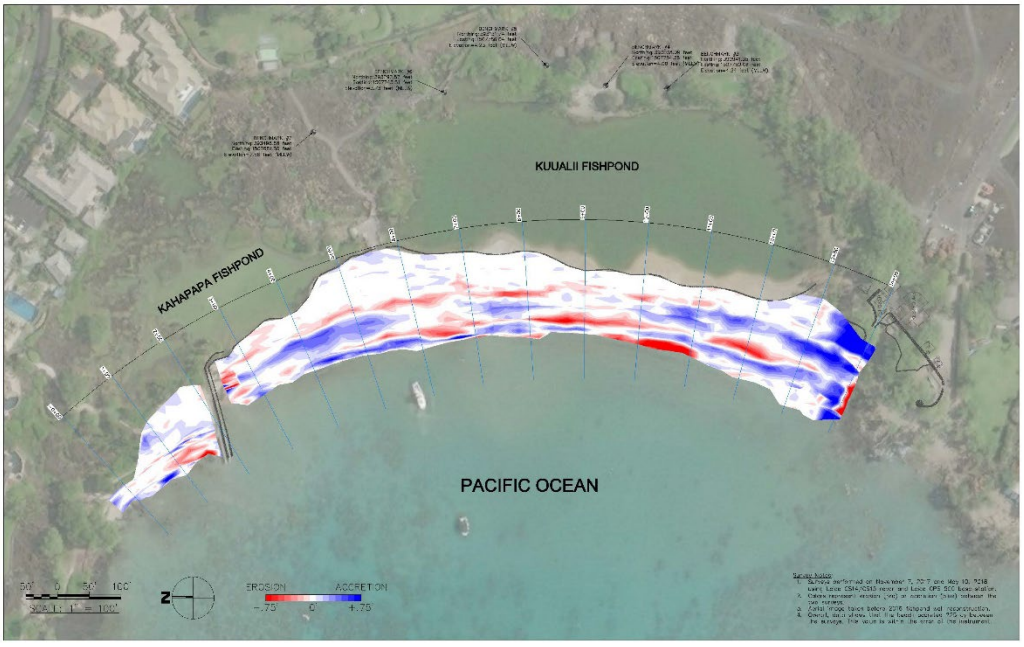
21. TITLE and LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION
Waikoloa Beach Management Plan Waikoloa, Hawaii	2017 to present	

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TEL
Waikoloa Beach Association	Scott Head	808-886-1000

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

Waikoloa Beach Resort is located on the west coast of the island of Hawaii, and the southern portion encompasses the shoreline of Anaehoomalu Bay. During a tsunami in March 2011 the beach was severely eroded, a 200-foot-wide breach was created through the beach into the fishpond depositing sand in the pond, and much of the fishpond rock wall which acted as a backstop for the beach was destroyed. Following completion of repairs, the beach has been relatively stable, and the additional beach crest height has reduced wave overtopping.

To ensure the continued stability of their beach, and address concerns about sea level rise, the Waikoloa Land Company and Waikoloa Beach Association have contracted Sea Engineering to develop a long-term plan for management and maintenance of their valuable beach resource. Work includes: Beach change monitoring, coastal assessment and preliminary concept plan, offshore sand survey, development of a detailed beach maintenance/management plan, environmental assessment and permit application, and detailed design and construction documents.



Cost: $12,560

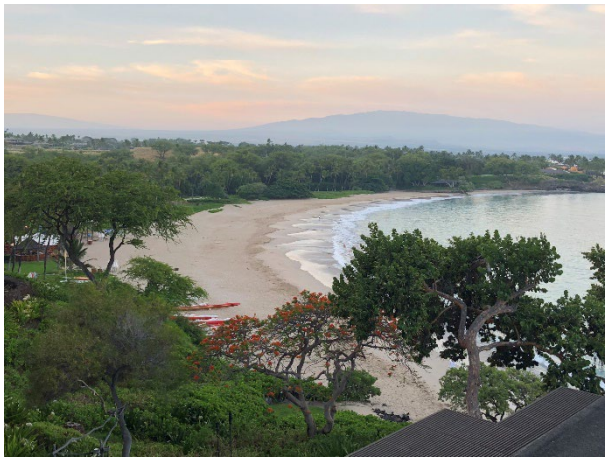
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
SE	Sea Engineering, Inc.	Waimanalo, Hawaii	Coastal/Ocean Engineering

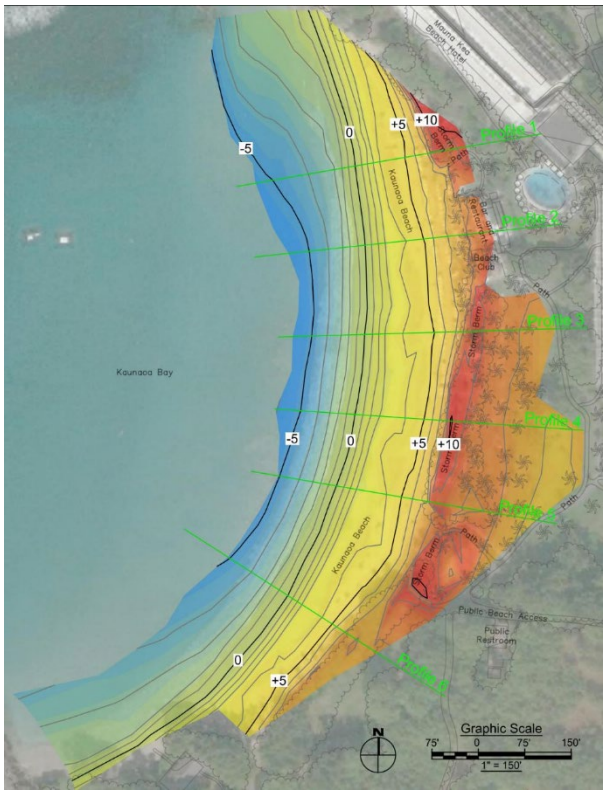
F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY	
	6	
21. TITLE and LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION
Mauna Kea Shoreline Restoration Project Kohala Coast, Hawaii	2018	

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TEL
Hookuleana LLC – Prince Resorts Hawaii	Peter Young	808-226-3567

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

The Mauna Kea Resort on Hawaii Island is planning improvements to their shoreline and hotel. Sea Engineering has been contracted to conduct detailed oceanographic and shoreline investigations to support implementation of these improvements. Work tasks included:





1. Wave analyses including deepwater wave climate, extreme deepwater wave height, numerical wave modeling of wave transformation to shallow water, wave runup, analysis of a particular extreme wave event that resulted in backshore flooding, and sea level rise impacts.

2. Site investigations including beach profile measurements, beach topographic survey, sand sampling and analysis, and assessment of coastal processes.

3. Development of a dune restoration plan based on regional, typical dune morphologies. Sea level impacts were considered, and a design report prepared.

Cost: $81,855

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
SE	Sea Engineering, Inc.	Waimanalo, Hawaii	Coastal/Ocean Engineering

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY	
	7	
21. TITLE and LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION
Project Conditions Survey Inspections of Federal Coastal Navigation Structures Hilo, Kawaihae, Laupahoehoe, Pohoiki	2015, 2016, & 2017	n/a

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TEL
USACE	Mike Hunneman – KAI Hawaii	808-533-2210

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

Sea Engineering was contracted to perform inspections of 24 federal coastal navigation structures (CNS) throughout Hawaii, Guam, Rota, and American Samoa operated and maintained by the U.S. Army Corps of Engineers (USACE), Pacific Ocean Division (POD), Honolulu District (POH). The purposes of the inspections were to verify the current condition of the structures, locate areas of concern on each structure, and identify and recommend future maintenance requirements. Specific work tasks included:

Kawaihae Small Boat Harbor

1) Categorizing each CNS into distinct reaches according to type of construction (rubble-mound, concrete armor, sheet pile, etc.); unique structural feature (head, trunk, root, etc.); and cross-sectional features (crest elevation, side slopes, toe protection, etc.).

2) Conducting inspections by physically walking the length of each CNS and inspecting areas including the crest, slopes, and toe of the structure. Damage was located with accurate GPS, described and photographed.

3) Preparing draft and final post-inspection reports that summarize the findings documented during the site inspection.

4) Preparing a plan-view map including the aerial imagery of the project site, stationing, structure components, CEPD benchmark, and the GPS location of each finding recorded during the site inspection.

Cost: $131,994

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
SE	Sea Engineering, Inc.	Waimanalo, Hawaii	Coastal/Ocean Engineering

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY	
	8	
21. TITLE and LOCATION *(City and State)*	22. YEAR COMPLETED	
Anaehoomalu Bay Tsunami Damage Repair Anaehoomalu, Waikoloa, South Kohala, Hawaii	PROFESSIONAL SERVICES	CONSTRUCTION
	2016	

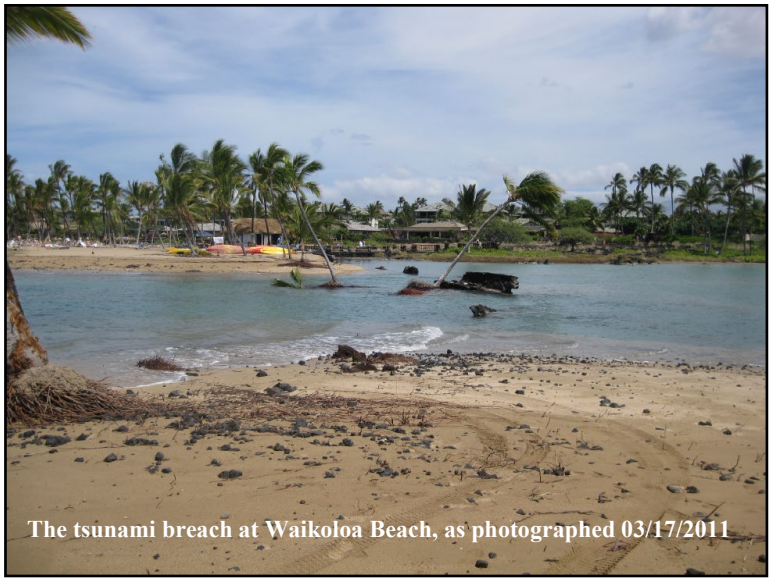
23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TEL
Waikoloa Beach Association	Eleanor Mirikitani	808-886-1000

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

Scope: On March 11, 2011, a tsunami generated by a massive earthquake in Japan struck the Hawaiian Islands and caused significant damage along portions of the State's shoreline. Waikoloa Beach on the island of Hawaii was directly impacted, with inundation reaching the backshore historical fishpond, subsequently destroying the pond wall and creating a 200-foot-wide breach through the beach fronting the pond.

Sea Engineering, Inc. was contracted to obtain permits and do emergency repair work to close the breach, and this work was completed in July of 2011. A sand-filled geotextile tube barrier was installed to close the gap in the beach. The emergency repair work was accomplished as an intermediate step to protect the fishpond while a long-term, permanent repair/restoration plan for the pond and beach can be developed. Permanent repairs would include rebuilding the fishpond wall and restoration of the beach to its pre-tsunami condition.

Cost: $235,000



The tsunami breach at Waikoloa Beach, as photographed 03/17/2011

March 14, 2012 Shoreline

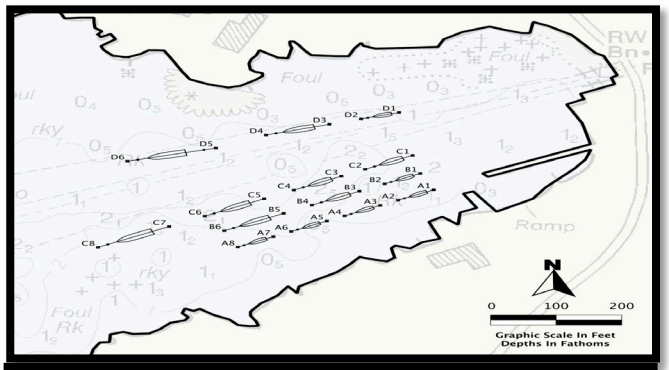
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
SE	Sea Engineering, Inc.	Waimanalo, Oahu, Hawaii	Coastal/Ocean Engineering

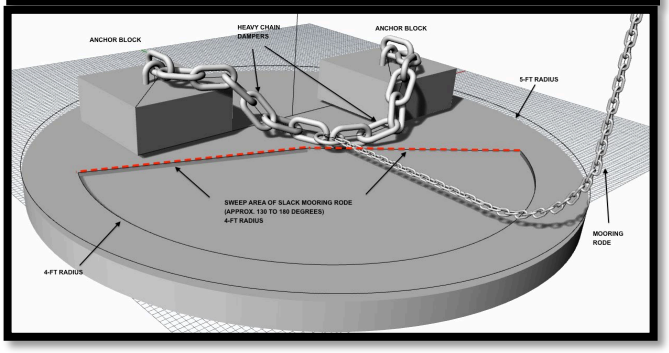
F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY	
	9	
21. TITLE and LOCATION *(City and State)*	22. YEAR COMPLETED	
Keauhou Bay Offshore Mooring Design Keauhou Bay, North Kona, Island of Hawaii	PROFESSIONAL SERVICES 2013	CONSTRUCTION

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TEL
State of Hawaii – DLNR	Eric Yuasa	808-327-9585

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

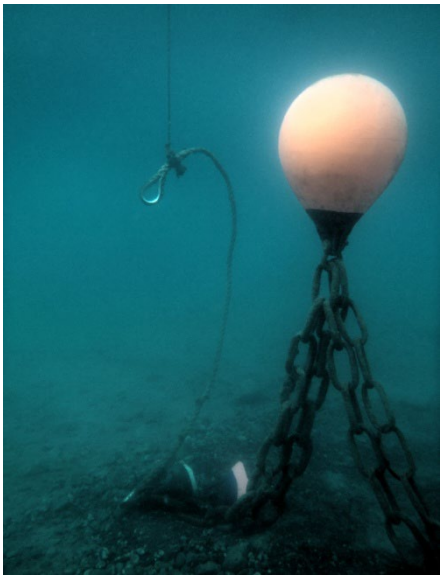
Scope: Sea Engineering Inc., was contracted by the State of Hawaii Division of Boating and Ocean Recreation (DOBOR), DLNR to redesign the mooring layout and mooring assembly design for Keauhou Bay, Hawaii. The purpose is to more effectively accommodate vessels and improve mooring assembly design and vessel and user safety.





The work included the following:

- Detailed site investigation to map existing moorings and bottom composition
- Design of a gravity mooring anchor system suitable for the variable, rocky, rubbly substrate in the bay



- Design of a mooring layout that maximizes vessel capacity in a safe manner
- Acquisition of a Department of the Army permit for the mooring buoys

In total, the proposed moorings will accommodate 14 vessels ranging from 30 to 60 feet in length. Mooring locations have been selected to avoid areas with high benthic marine life as far as practicable.

The mooring plan calls for six 30ft vessels, three 40ft vessels, three 50ft vessels, and two 60ft vessels.

Cost: $50,700

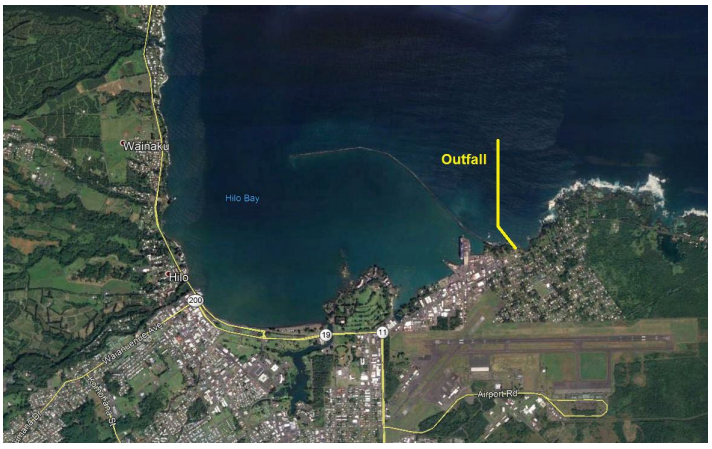
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
SE	Sea Engineering, Inc.	Waimanalo, Oahu, Hawaii	Coastal/Ocean Engineering

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY	
	10	
21. TITLE and LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION
Hilo WWTP Outfall Inspection Hilo, Hawaii	2018, 2012, 2011	

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TEL
County of Hawaii Wastewater	Curtis Bailey	808-961-8338

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

Sea Engineering, Inc. (SEI) was contracted by the Hawaii County Wastewater Division to perform an underwater inspection of the Hilo Wastewater Treatment Plant (WWTP) outfall. The purpose of the inspection was to satisfy requirements of the U.S. Environmental Protection Agency Administrative Order.



SEI performed inspections on the outfall in 1987, 1990, 2001, 2005, 2011, 2012, and again in September of 2018. The inspection was conducted by a five-man dive team using SCUBA and covered the submerged length of the outfall. Stationing was established by dropping orange plastic markers along the outfall and video was recorded along the entire length of the outfall.

In order to help identify any leaks from the pipe, Bright Dyes® fluorescent yellow/green tracer dye was injected into the pipe through a manhole located on land near the entry point of the pipe into the ocean. No leaks were detected along the length of the outfall.

SEI is scheduled to perform this upcoming inspection in 2023.

Cost: $48,995

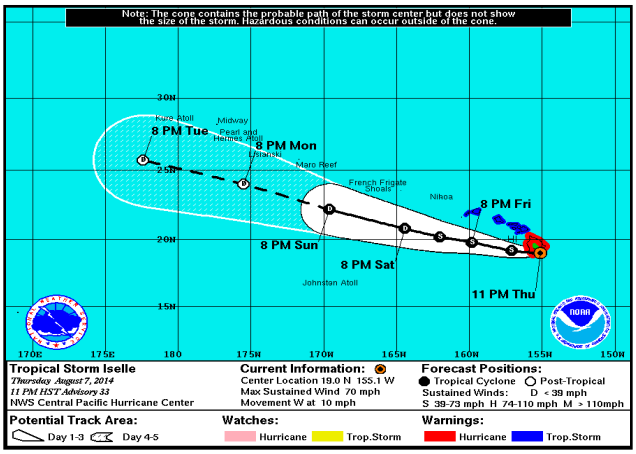
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
SE	Sea Engineering, Inc.	Waimanalo, Hawaii	Coastal/Ocean Engineering

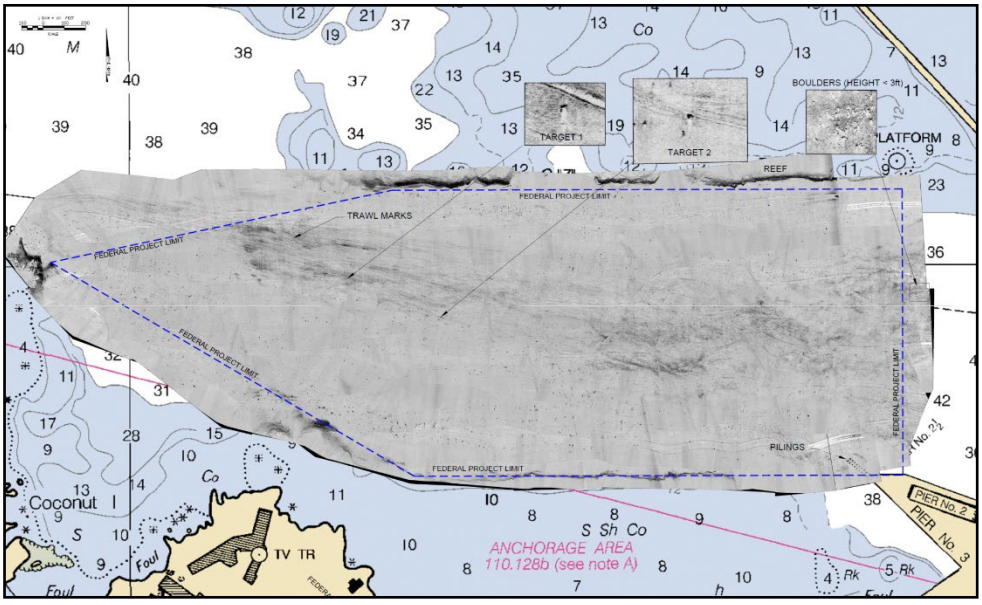
F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY	
	11	
21. TITLE and LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION
Post-Storm Hydrographic Survey of Hilo Harbor, Island of Hawaii Hilo, Hawaii	2015	n/a

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TEL
USACE-POH/AECOM	Jerry Matsuda (AECOM)	808-356-5370

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

Scope: Tropical Storm Iselle hit the east side of Hawaii Island at approximately 11:00 pm on August 7, 2014, with near hurricane force winds of 70 mph. Concerns that the Hilo Harbor channel would be compromised by sunken debris or other obstructions due to the effects of the storm prompted harbor closure until a hydrographic survey could be completed to verify that the channel was clear of obstacles. Sea Engineering, Inc. (SEI) was notified at approximately noon on August 7, 2014, that a survey would be necessary the following day at Hilo Harbor. Two survey engineers from Sea Engineering with equipment flew to Hilo mid-morning on August 8 to conduct the survey. The survey was successfully completed, and results were communicated to the USACOE-POH at 7:00 pm on August 8, 2014. The Harbor was immediately re-opened.





Scan sonar mosaic of Federal Project Area, Hilo Harbor

Cost: $15,000

(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
Sea Engineering, Inc.	Waimanalo, Oahu, Hawaii	Coastal/Ocean Engineering

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY
	12

21. TITLE and LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION
Laupahoehoe Boat Ramp Repair Hawaii (Big Island)	2010	

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TEL
County of Hawaii Dept. of Parks and Recreation	James Komata	(808) 961-8531

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

Scope: Laupahoehoe Park is located on the Hamakua Coast on the northeast side of the Island of Hawaii, approximately 25 miles north-northwest of Hilo. The park contains a boat launch ramp facility and protective 250-foot-long breakwater built in 1988. The site is exposed to rough trade wind seas and north swells, and the condition of the boat ramp has deteriorated. In the summer of 2009, the launch ramp was closed due to hazardous conditions, including erosion of deep grooves in the ramp surface, exposed reinforcing rebar, and loss of traction. Sea Engineering, Inc. (SEI) and Arnold T. Okubo & Associates were contracted by the County of Hawaii to investigate site conditions of the ramp, design repairs to the ramp, prepare the necessary environmental and permit documents, and provide engineering support through construction.

Cost: $200,000

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
SE	Sea Engineering, Inc.	Waimanalo, Oahu, Hawaii	Coastal/Ocean Engineering

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS													
26. NAMES OF KEY PERSONNEL (From Section E, Block 12)	27. ROLE IN THIS CONTRACT (From Section E, Block 13)	28. EXAMPLE PROJECTS LISTED IN SECTION F *(Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)*											
		1	2	3	4	5	6	7	8	9	10	11	12
David Smith, P. E.	Coastal Engineer	X	X			X	X	X					
Chris Goody, P.E.	Ocean Engineer	X	X						X	X			
Chris Conger	Coastal Scientist			X		X	X			X	X		X
Marc Ericksen	Project Manger			X							X	X	X
Scott Sullivan	Project Manager				X	X			X	X			
Morgan Stephenson	Ocean Engineer		X	X	X		X	X					

29. EXAMPLE PROJECTS KEY	
NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)
1	Hilo Harbor Breakwater Improvements – Basis of Design
2	Laupahoehoe Harbor Breakwater Repair Basis of Design
3	Hawaii DOT Scour Critical Bridge Project
4	Pohoiki Boat Ramp Repair Relocation
5	Waikoloa Beach Management Plan
6	Mauna Kea Shoreline Restoration Project
7	Project Conditions Survey Inspections of Federal Coastal Navigation Structures
8	Anaehoomalu Bay Tsunami Damage Repair
9	Keauhou Bay Offshore Mooring Design
10	Hilo WWTP Outfall Inspection
11	Post-Storm Hydrographic Survey Hilo Harbor
12	Laupahoehoe Boat Ramp Repair

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS REQUIRED.

A. SPECIALIZED EXPERIENCE OF THE FIRM

Sea Engineering, Inc. (SEI) specializes in coastal and ocean engineering, and marine environmental services. Experienced staff is available to undertake a wide range of projects. With experience in Hawaii, California and throughout the Pacific Basin, SEI is able to respond rapidly to project needs, drawing on an in-house database and the knowledge gained from extensive work in the different island groups.

Awards:

- 2022 ASBPA Robert L. Weigel Award – Iroquois Point Beach Nourishment and Stabilization
- 2022 ASBPA Best Restored Beach – Waikiki Beach Maintenance
- 2021 ASCE Project of the Year, Region 8. Less than $10M Royal Hawaiian Groin Replacement
- 2020 ASCE Best Special Project for Royal Hawaiian Groin Replacement & Engineering Services
- 2020 GCA Build Hawaii Awards – MERIT AWARD – Haleiwa Beach Park Emergency Stabilization
- 2020 GCA Build Hawaii – Grand Award for U.S.S Arizona Memorial & Floating Dock Damage Repairs
- 2019 ASCE Best Research Project - Saipan Lagoon Hydrodynamic Study
- 2018 ASCE Hawaii Best Large Project Award – Governor Eloy S. Enos Peace Park, Puerto Rico, Saipan,CNMI
- 2014 National Best Restored Beach Award recognized by the American Shore and Beach Preservation Association.
- 2012 ASCE Best Special Project Award for Waikiki Beach Restoration
- 2012 Outstanding ACAS rating received from TEC, Inc & NAVFAC Pacific for Monitoring of Existing Turbidity at the CVN Capable Berth Project, Apra Harbor, Guam.
- 2011 Outstanding ACAS rating received from TEC, Inc. & NAVFAC Pacific for the Oceanographic/Marine Ecological Assessment, Apra Harbor, Guam.
- 2009 ASCE Hawaii Best Small Project Award – Analysis and Prediction of Waves and Surge in Kahului Harbor
- 2008 ASCE Hawaii Outstanding Civil Engineering Achievement Award for the Design of Kaumalapau Harbor Breakwater Modification
- 2004 ASCE Outstanding Civil Engineering Achievement Award for the Sewer Outfall Extension at Fort Kamehameha, Pearl Harbor, Oahu, Hawaii.

Coastal Engineering: Marina and harbor design; coastal planning; beach nourishment design; dredging planning and analysis; design and evaluation of coastal structures for erosion control, shore protection and navigation; storm inundation analyses; beach erosion and coastal processes studies. Sea Level Rise (SLR) analysis and adaptation measures.

Numerical Modeling: State-of-the-science 2- and 3-dimensional hydrodynamic and transport modeling for applications including sediment transport; contaminant transport; water quality; beach response; and discharges into marine and freshwater environments. Modeling of deep-water to nearshore wave transformation using both 2- D steady-state models and 3-D fully non-linear Boussinesq models. High resolution computational fluid dynamics (CFD).

Ocean Engineering: Determination of engineering oceanographic design criteria; storm wave propagation and wave-driven circulation modeling; armor design; measurement and analysis of waves, tides currents and other parameters for planning and design; submarine pipeline and cable route selection and conceptual design.

Marine Environmental: Preparation of Environmental Assessments and Impact Statements; preparation of Federal, State and City permit applications for marine projects; measurement and analysis of sediment and contaminant transport and water quality; turbidity analysis; water quality monitoring; analysis and assessment of the impact of coastal facilities on the marine environment; oceanographic studies; search and recovery of hazardous materials. SLR modeling and potential impact studies.

Marine Construction Services: Fully equipped commercial diving locker to provide diving services in support of the construction and repair of pipelines, wharves, cable landings, breakwaters, offshore oil moorings, and other coastal and offshore marine facilities. Repair and construction of waterfront structures, including wharves, piers, intakes, small boat ramps and other structures.

H. ADDITIONAL INFORMATION

Hydrographic and Geophysical Surveys: Fully automated hydrographic and geophysical survey capability including bathymetry, side scan sonar, subbottom profiling, UXO detection, and ROV surveys. Surveys tasks have included dredge monitoring and payment, dredge design, cable route reconnaissance and selection, environmental assessment, bottom mapping, object location, and sand deposit mapping.

Logistical Support: Support for oceanographic or research projects includes a fully equipped shop on the Honolulu Harbor waterfront and vessels ranging from 17 to 84 feet long.

b. PROFESSIONAL QUALIFICATIONS OF STAFF TO BE ASSIGNED TO THE PROJECTS

SEI principals, engineers and scientists have graduate level degrees in ocean engineering and coastal geology. The majority of employees have worked for the firm for over 10 years. Senior level managers and engineers have worked for SEI for over 20 years. Resumes of key personnel are included in this submittal.

c. PAST PERFORMANCE ON SIMILAR PROJECTS

SEI has completed numerous contracts for the State of Hawaii and on the Big Island. Sea Engineering. Inc. projects are completed within budget, on schedule and with the highest attention to quality control. Representative projects SEI has worked on in Hawaii County as well for the State of Hawaii, include the following projects:

Project	Date	Firm
Hilo WWTP Outfall Inspection	2018 & 2023	County of Hawaii, Wastewater Division
Lahaina Small Boat Harbor and Mala Boat Ramp Maintenance Dredging	2023	State of Hawaii, DLNR
Kona Village Resort Beach Restoration	2021 to present	Kona Village Resort
Hilo Harbor Breakwater Improvements – Basis of Design	2020 to present	USACE, Cardno GS
Laupahoehoe Marine Biological Surveys & Environmental support	2020 to present	USACE, Cardno GS
Laupahoehoe Harbor Repair Design	2020 to present	USACE, Cardno GS
Kalaeloa Fuel Pier Development	2018 to present	State of Hawaii DOT, Mitsunaga & Associates
Waikiki Beach Restoration	2017 to present	State of Hawaii, DLNR
Hawaii DOT Scour Critical Bridge Project – Bathymetry & Underwater Inspections, and Permitting	2015 to present	State of Hawaii DOT, KAI Hawaii
Royal Hawaiian Groin Replacement	2020	State of Hawaii, DLNR
Waikoloa Beach Management Plan	2020	Waikoloa Beach Association
Harbors Oahu District Baseyard Improvements	2019	State of Hawaii DOT, RM Towill Corp
Pier 28-33 Hydrographic Survey Honolulu Harbor	2019	State of Hawaii DOT, Westin Solutions
Pohoiki Boat Ramp Repair Relocation	2019	State of Hawaii, DOBOR
Hilo Ocean Outfall Inspection	2018	County of Hawaii
Laupahoehoe Harbor Breakwater Repair	2018	USCOE, Nagamine Okawa, Engineers,
Mauana Kea Shoreline Restoration Project	2018	Hookuleana LLC, Prince Resorts Hawaii
Kahului Harbor Pier 2 High Spot Hydrographic Survey	2018	State of Hawaii DOT, Control Point Surveying
Anaehoomalu Bay Tsunami Damage Repair	2016	Waikoloa Beach Association
Post – Storm Hydrographic Survey of Hilo Harbor	2015	USACE, AECOM

H. ADDITIONAL INFORMATION		
Keahou Bay Offshore Mooring Design	2013	State of Hawaii, DLNR

d. CAPACITY TO ACCOMPLISH WORK

SEI has a proven capacity for accomplishing work on time and on budget. We have participated in numerous design projects which have been successfully constructed. We have an experienced staff available to undertake a wide variety of coastal-related engineering projects, and our projected workload will permit timely accomplishment of future work.

e. KNOWLEDGE OF THE LOCALITY

SEI is located in Honolulu, Hawaii. We have performed engineering studies throughout the Pacific Basin, including all the main Hawaiian Islands, Guam, the Northern Marianas, American Samoa, the Marshall Islands, Okinawa, the Federated States of Micronesia, the Republic of Palau, as well as Alaska and California. SEI has considerable "local" knowledge for the Pacific region, and an extensive in-house data base for the Pacific area.

Sea Engineering, Inc. is a Small Business - 541330 (Engineering Services, Marine Engineering).

I. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

31. SIGNATURE	32. DATE
	June 21, 2023

41. NAME and TITLE *(Print or type)*

Chris Conger, Vice President

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(if any)*: **County of Hawaii FY 2023-2024**

PART II – GENERAL QUALIFICATIONS

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

2a. FIRM (OR BRANCH OFFICE) NAME	3. YEAR ESTABLISHED	4. DUNS NUMBER
SEA ENGINEERING, INC.	1973	DUNS#: 066273905 CAGE: 0H711

2b. STREET	5. OWNERSHIP
41-305 Kalanianaole Hwy, Makai Research Pier	

2c. CITY	2d. STATE	2e. ZIP CODE	a. TYPE
Waimanalo	HI	96795	Corporation

6a. POINT OF CONTACT NAME and TITLE	b. SMALL BUSINESS STATUS
Chris Conger, Vice President	Small Business - Engineering Services, Marine Engineering

6b. TELEPHONE NUMBER	6d. E-MAIL ADDRESS	7. NAME OF FIRM *(If block 2a is a branch office)*
(808) 259-7966	cconger@seaengineering.com	

8a. FORMER FIRM NAMES(S) *(If any)*	8b. YR. ESTABLISHED	8c. DUNS NUMBER
N/A	1973	DUNS#: 066273905 CAGE: 0H711

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 (1) Firm	c. No. of Employees (2) Branch	a. Profile Code	b. Experience	c. Revenue Index No. *(see below)*
01	Administrative	4	1	B02	Bridges	4
12	Civil Engineer	6	3	C05	Coastal Engineering	6
30	Geologist	3	3	D04	Design-Build	5
-	Ocean Engineer	5	2	E08	EIS	5
-	Coastal Engineer	7	7	H01	Harbors, jetties, etc.	6
44	Oceanographer	1	1	H13	Hydrographic Surveying	4
23	Environmental Engineer	1	0	O02	Oceanographic Engineering	4
				R04	Marinas	1
				R11	Rivers, Canals, Waterways	1
	Total	24	14	S10	Surveying, mapping	2

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	6
b. Non-Federal Work	6
c. Total Work	6

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE	b. DATE
	June 21, 2023
c. NAME OF AUTHORIZED *(Print or type)*	d. TITLE *(Print or type)*
Chris Conger	Vice-President

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Sea Engineering, Inc.

Makai Research Pier • 41-305 Kalanianaole Hwy • Waimanalo, Hawaii 96795-1820
Phone: (808) 259-7966 • FAX (808) 259-8143 • E-mail: sei@seaengineering.com • Website: www.seaengineering.com

SEI CORPORATE REFERENCES Professional Services
(July 2023 to June 2024)

Ms. Elaine Morisato, Civil Engineer
Department of Design & Construction
650 So. King St., 11th Floor
Honolulu, HI 96813

Mr. Ross Tanimoto, Deputy Director
City & County of Honolulu, Dept. of Environmental Services
1000 Uluohia St., Suite 308
Kapolei, Hawaii 96707

Mr. Mike Hunneman, Vice President
KAI Hawaii
50 S. Beretania Street, #C-119C
Honolulu, HI 96813
Phone: (808) 533-2210

Mr. Rick Heltzel, President
Healy Tibbitts Builders, Inc.
99-994 lwaena Street, #A
Aiea, Hawaii 96701
Phone: (808) 487-3664

Mr. Michael Cain, Administrator
Department of Land & Natural Resources
Office of Conservation and Coastal Lands
Kalanimoku Building
1151 Punchbowl St., Rm 131
Honolulu, Hawaii 96813
Phone: (808) 587-0377

PE-12544

CHRISTOPHER C GOODY
SEA ENGINEERING, INC. MAKAI RESEARCH
PIER 41-305 KALANIANAOLE HWY
WAIMANALO, HI 96795

PROFESSIONAL ENGINEER
NOTICE THIS POCKET ID CARD IDENTIFIES YOU TO THE PUBLIC AS BEING CURRENTLY LICENSED AND SHOULD BE KEPT IN YOUR POSSESSION AT ALL TIMES.

License Number
PE-12544

Expiration date
4/30/2024

STATE OF HAWAII DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS

PROFESSIONAL ENGINEER

CLASS(ES): CE CIVIL

CHRISTOPHER C GOODY
SEA ENGINEERING, INC. MAKAI RESEARCH
PIER 41-305 KALANIANAOLE HWY
WAIMANALO, HI 96795

SIGNATURE OF LICENSEE

CLASSES (ACTIVE):

PE-11453

DAVID A SMITH
SEA ENGINEERING, INC. MAKAI RESEARCH
PIER 41-305 KALANIANAOLE HWY
WAIMANALO, HI 96795

PROFESSIONAL ENGINEER
NOTICE THIS POCKET ID CARD IDENTIFIES YOU TO THE PUBLIC AS BEING CURRENTLY LICENSED AND SHOULD BE KEPT IN YOUR POSSESSION AT ALL TIMES.

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DAVID A SMITH
SEA ENGINEERING, INC. MAKAI RESEARCH
PIER 41-305 KALANIANAOLE HWY
WAIMANALO, HI 96795

SIGNATURE OF LICENSEE

CLASSES (ACTIVE):