

Task 1: C Dock Assessment

GHD Scope of Services & Fee Proposal

City of Key West 20 August 2021

→ The Power of Commitment



GHD Services, Inc | ghd.com

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Attachments

Figure 1

Attachment A GHD Team Cost Details

Attachment B Industrial Divers Corporation Cost Details

C Dock Project Limits

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1. Introduction

1.1 Purpose

The City of Key West (City) desires to perform an engineering condition assessment of C Dock and determine the level of effort required to permit and construct the recommended repair alternatives. This scope of services document provides a description of the GHD Team's approach and anticipated fees.

1.2 Location

C Dock is located within the Key West Bight Marina at the Historic Seaport. It is located at the terminus of Margaret Street, extends ~210 linear feet into the Bight, and varies in width from ~20ft at its connection to the upland seawall to ~40ft at the dockmaster building. The approximate project limits are defined by the red line depicted in Figure 1.



Figure 1 C Dock Project Limits

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2. Scope of Services

The GHD Team has identified five distinct tasks to perform an engineering evaluation, develop repair recommendations with estimates of probable construction costs, and permit the preferred repair alternative. These are:

- Task 1A: Public Records Search & Data Review
- > Task 1B: Underwater Inspection
- Task 1C: Engineering Assessment & Recommended Repair Alternatives with Estimates of Probable Construction Costs
- Task 1D: Preliminary Agency Coordination
- Task 1E: Project Permitting

2.1 List of Assumptions

The following assumptions apply to this scope of services document:

- This task order will be issued under a Time & Materials Not to Exceed cost basis.
- GHD Team rates are based on the General Environmental Engineering Services Agreement between the City of Key West and GHD, dated March 23, 2020 with a 3.0% annual wage adjustment per Section 5.1.2.3.
- Evaluation efforts are solely related to the C Dock Structure and do not include the evaluation of ancillary facilities such as the dockmaster building and foundations, adjacent piers, and mooring structures.

2.2 Task 1A: Public Records Search & Data Review

2.2.1 Kick-off Meeting

The GHD Team will prepare for a kick-off meeting with key City staff and members of the GHD Team to confirm communication protocols, review the C Dock Project scope, coordinate and develop a schedule for field activities, and verify the City's objectives and expectations for the work. The kick-off meeting will be conducted within 14 business days of Notice to Proceed (NTP) to ensure a timely initiation of Project activities.

2.2.2 Public Records Search & Data Review

The GHD Team will perform a search for publicly available records, reports, aerials, photographs and any other documents that may be used to provide insight into the history of C Dock (e.g. construction materials, dimensional data, year constructed, major modifications/repairs, etc.). GHD also anticipates receiving from City Staff any existing relevant documents and reports within the City's files that can be used to guide the field investigations and evaluation of the existing Dock structure. The following information, *if available*, is specifically requested:

- Record drawings of the existing dock and adjacent/ancillary structures including dockmaster building and foundations
- Recent and historic topographic and/or bathymetric surveys
- Geotechnical data
- Utility locates/as-builts
- Marine resource surveys
- Underwater photographs and/or video of C Dock
- History of modifications and/or repairs of C Dock
- Existing and/or known future use (e.g. upland loading and marina dredge elevations)

2.3 Task 1B: Underwater Inspection

GHD Team member Industrial Divers Corporation (IDC) will perform a Level I and limited Level II underwater inspection to assess the condition of the approximately 450 linear feet of concrete seawall that comprises C Dock. Level I inspections are visual only inspections that are performed to detect obvious damage and deterioration (e.g. voids between concrete panels or at the toe of the wall, spalling, exposed rebar, cracks, etc.). Level II inspections include removal of marine growth and hammer tapping to determine concrete soundness at regular intervals along the seawall. A GHD structural engineer will be present during the inspection to document the location and extent of observations along the structure. During these investigations, IDC shall document their observations using high-definition video and still photographic equipment. The video and still photography shall serve a dual purpose in that it will allow the GHD Team to evaluate the structural characteristics of the site, while providing reconnaissance level documentation of sessile benthic species (corals, sponges, octocorals, etc.) and communities within the Project area. This scope of work and cost estimate shall not be conducted by scientific divers and is strictly reconnaissance level documentation to determine presence/absence of protected species and habitats. Should a detailed survey of benthic habitats be required by the agency representatives in Task 1D below, GHD shall prepare a supplemental proposal for City approval.

The seawall embedment depth will also be measured at regular intervals by utilizing a jet probe with a hooked end. The water jet should allow advancement through the bottom sediments to "hook" the concrete panel bottom and measure the total panel length, provided surface rubble or rip-rap are not present or can be avoided.

Assumptions

GHD budgeted a total of 4 days to conduct this assessment. This includes one contingency day and travel.

2.4 Task 1C: Engineering Assessment & Conceptual Repair Alternatives with Estimates of Probable Construction Costs

Following the completion of Task 1A and 1B, the Team's coastal, structural, and geotechnical engineers will evaluate the existing dock based on current conditions and anticipated future loading and environmental conditions (e.g. dredge depths, upland loads, propeller-induced scour, and low water/negative surge elevations) and provide a draft summary report detailing the results of the field investigations, repair recommendations, and an opinion of probable construction cost for up to two (2) repair alternatives. GHD anticipates a single round of review comments that will be addressed and incorporated into a final deliverable.

Deliverables

Draft & Final Report

2.5 Task 1D: Preliminary Agency Coordination

Based on the findings of Task 1C, GHD shall evaluate the applicability of Federal regulatory guidance (USACE JAXBO, and General Permitting) to determine whether there are opportunities for a streamlined Federal regulatory review and approval process. Once this evaluation has been completed, the GHD Team shall advise the City on our findings and propose a recommended course of action as it relates to application and acquisition of the Federal authorizations for the C-Dock rehabilitation effort.

The GHD Team will coordinate and lead meetings with the State Historic Preservation Officer (SHPO), Florida Department of Environmental Protection (FDEP), U. S. Army Corps of Engineers and National Marine Fisheries Service (Protected Resources Division and Habitat Conservation Division) The purpose of this meeting will be to engage the agencies early in the evaluation process and obtain staff input/guidance on the level of effort required to permit each repair alternative as well as supporting documentation that will assist in streamlining the permitting process. Should the GHD Team document significant natural resources (species or communities) during Task 1B above, resource protection agency representatives shall be asked to define the nature and extent of their expectations for supplemental benthic surveys of the area, and whether monitoring and/or mitigation may be required as part of their respective permits. It is anticipated that a site visit with the agencies will be conducted as part of this Task, with a follow-up virtual meeting to discuss anticipated regulatory requirements for the project.

Deliverables

- 1. Meeting Agenda & PPT Presentation for virtual meeting with SHPO, FDEP, USACE
- 2. Meeting Summary Memorandum SHPO, FDEP, USACE

2.6 Task 1E: Project Permitting

Once the GHD Team and the City determine an appropriate repair plan, GHD shall commence development of separate permit application packages for submittal to each of the agencies with regulatory jurisdiction over this project. Plan and cross-section drawings sufficient to describe the repair work, with relevant survey and environmental documentation will be included in the application packages to define the nature and extent of the Project for agency personnel and their review.

An integral component of the permit application process is the delineation of any significant resources (i.e., marine/estuarine – which will be captured in sufficient detail in the Task 1B field work) and presence/absence of protected species within the area of anticipated effect from construction activities. As part of the application package, and only if significant resources are identified, the GHD Team shall prepare and submit a summary report of findings and shall include recommendations for mitigative activities and protective measures that can be implemented to avoid or minimize impacts to sensitive natural resources.

The City shall be responsible for payment of the permit application/processing fees which shall be verified by regulatory agency staff during the pre-application meetings. The anticipated fees are specifically not included as a reimbursable/contingency cost line item in this proposal.

Upon notification by the agencies that the applications have been deemed complete, GHD will track issuance of the permit and will immediately review Special Permit Conditions that will pertain to the Project. Although not anticipated, any conditions deemed onerous to the City will be discussed with City Staff within one week to develop alternatives or amendments that may accomplish the intent of the agency directive, but not adversely affect the budget or schedule of the project.

Deliverables

- Permit Application Package(s) and supporting files
- 2. Response to up to two Requests for Additional Information (RAI) from FDEP and USACE
- 3. Regulatory authorizations issued by FDEP and USACE

3. Proposal Costs

We appreciate the opportunity to submit our Time & Materials – Not to Exceed cost proposal for \$89,928.80 as defined below in Table 1. Further details on this cost proposal are presented in Attachment A.

Table 1 Summary of Costs

Item	Value
Task 1A: Public Records Search & Data Review	\$5,871.00
Task 1B: Underwater Inspection (includes one contingency day)	\$30,178.50
Task 1C: Engineering Assessment & Recommended Repair Alternatives	\$19,858.40
Task 1D: Preliminary Agency Coordination	\$11,443.30
Task 1E: Project Permitting	\$22,577.60
Total	\$89,928.80

4. Closing

We look forward to working with the City of Key West on this important project. Please do not hesitate to contact Jesse Davis, PE, ENV SP at 786-447-7972 if you have any questions.

Sincerely,

GHD Services, Inc.

Brian Moore, PE

Vice President



City of Key West Environmental Engineering Service	s		PROPOSED COMPENSATION AND FEE SCHEDULE																												
GHD Detailed Cost Estimate			Task 1 - C Dock Assessment																												
																		Tas	sk 1A - Literat	ure/Data Revi	ew										
August 20, 2021		<u>Tasi</u>		Kick-Off		Public Recor Client Pro Rev	vided Data iew	Task Field Inve Underwater	stigation - · Inspection	Engineering and Conce Altern	t 1C - Assessment otual Repair latives	Prelimina Coord	t 1D - ry Agency ination		Permitting	Total Es Projec	t Cost														
	FY 21/22 Rate	Task Units	Task Cost	SubTask Units	SubTask Cost		SubTask Cost	SubTask Units	SubTask Cost	SubTask Units	SubTask Cost	SubTask Units	SubTask Cost	SubTask Units	SubTask Cost	Units	Cost														
GHD LABOR Project Manager	\$231.75	28.0	\$6,489.00	2.0	\$463.50		\$0.00	4.0	\$927.00	8.0	\$1,854.00	6.0	\$1,390.50	8.0	\$1,854.00	28.0	\$6,489.00														
Senior Engineer	\$206.00	106.0	\$21,836.00	2.0	\$412.00	4.0	\$824.00	48.0	\$9,888.00	40.0	\$8,240.00	8.0	\$1,648.00	4.0	\$824.00	106.0	\$21,836.00														
Senior Scientist Junior Engineer	\$206.00 \$139.05	44.0 86.0	\$9,064.00 \$11,958.30	2.0	\$0.00 \$278.10	4.0	\$0.00 \$556.20	4.0	\$824.00 \$0.00	40.0	\$0.00 \$5,562.00	16.0	\$3,296.00 \$0.00			44.0 86.0	\$9,064.00 \$11,958.30														
Senior Geo/Hydro	\$139.05 \$164.80	0.0	\$0.00	-	\$0.00		\$0.00	-	\$0.00	- 40.0	\$0.00		\$0.00	-	\$0.00		\$0.00														
Mid Technician	\$144.20	0.0	\$0.00	-	\$0.00	-	\$0.00	-	\$0.00	-	\$0.00	-	\$0.00		\$0.00	•	\$0.00														
Senior Geo/Hyrdo Senior Geotechnical Engineer	\$164.80 \$206.00	8.0	\$1,318.40 \$824.00	-	\$0.00 \$0.00	-	\$0.00 \$0.00		\$0.00 \$0.00	8.0 4.0	\$1,318.40 \$824.00	•	\$0.00 \$0.00		\$0.00 \$0.00	8.0 4.0	\$1,318.40 \$824.00														
Driller	\$206.00 \$103.00	4.0 0.0	\$0.00	-	\$0.00	-	\$0.00	-	\$0.00		\$824.00		\$0.00		\$0.00	4.0	\$824.00														
Driller	\$103.00	0.0	\$0.00	-	\$0.00		\$0.00	-	\$0.00		\$0.00		\$0.00	-	\$0.00	-	\$0.00														
Senior Technician	\$184.80	0.0	\$0.00	-	\$0.00	-	\$0.00	-	\$0.00	-	\$0.00	-	\$0.00		\$0.00	•	\$0.00														
Administrative/CADD Staff Senior Technical Reviewer	\$72.10 \$257.50	0.0 8.0	\$0.00 \$2,060.00	-	\$0.00 \$0.00	-	\$0.00 \$0.00	-	\$0.00 \$0.00	8.0	\$0.00 \$2,060.00	-	\$0.00 \$0.00		\$0.00 \$0.00	8.0	\$0.00 \$2,060.00														
	\$257.50															•															
TOTAL LABOR COST		284.0	\$53,549.70	6.0	\$1,153.60	8.0	\$1,380.20	56.0	\$11,639.00	108.0	\$19,858.40	30.0	\$6,334.50	76.0	\$13,184.00	284.0	\$53,549.70														
TEAMING PARTNER SWC																															
President, Principal Environmental Scientist Senior Environmental Scientist	\$231.75 \$159.65	26.0 74.0	\$6,025.50 \$11,814.10	2.0 2.0	\$463.50 \$319.30	16.0	\$0.00 \$2,554.40		\$0.00 \$0.00	-	\$0.00 \$0.00	32.0	\$0.00 \$5,108.80	24.0		26.0 74.0	\$6,025.50 \$11,814.10														
Genior Environmental Scientist	\$109.65	74.0	\$11,014.10	-	\$319.30	16.0	\$2,554.40	-	\$0.00	-	\$0.00	32.0	\$5,108.80		\$3,831.60	74.0	\$11,814.10														
				-	\$0.00	-	\$0.00	-	\$0.00	-	\$0.00		\$0.00	-	\$0.00	-	\$0.00														
				-	\$0.00 \$0.00	-	\$0.00 \$0.00	-	\$0.00 \$0.00	-	\$0.00 \$0.00	-	\$0.00 \$0.00		\$0.00 \$0.00	-	\$0.00 \$0.00														
								-		-																					
TEAMING PARTNER	Total	100.0	\$17,839.60	4.0	\$782.80	16.0	\$2,554.40	-	\$0.00	-	\$0.00	32.0	\$5,108.80	48.0	\$9,393.60	100.0	\$17,839.60														
Underwater Inspection - Commercial Dive Team	\$16,852.00	0.0	\$16,852.00	-	\$0.00		\$0.00	1.0	\$16,852.00	-	\$0.00		\$0.00	-	\$0.00	1.0	\$16,852.00														
IDC	Total		\$16,852.00	•	\$0.00		\$0.00	1.0	\$16,852.00	-	\$0.00		\$0.00		\$0.00		\$16,852.00														
TOTAL SUBCONTRACTOR COSTS			\$34,691.60		\$782.80		\$2,554.40		\$16,852.00		\$0.00		\$5,108.80		\$9,393.60		\$34,691.60														
GHD Expenses																															
Mileage (miles)	\$0.58	500.0	\$287.50	-	\$0.00	-	\$0.00	500.0	\$287.50	-	\$0.00		\$0.00	-	\$0.00	500.0	\$287.50														
Misc. Travel Costs (gas, parking, tolls)	\$100.00	1.0	\$100.00	-	\$0.00		\$0.00	1.0	\$100.00	-	\$0.00		\$0.00	-	\$0.00	1.0	\$100.00														
Lodging (nights)	\$300.00 \$100.00	3.0 4.0	\$900.00	-	\$0.00	-	\$0.00	3.0 4.0	\$900.00 \$400.00	-	\$0.00	-	\$0.00		\$0.00 \$0.00	3.0 4.0	\$900.00 \$400.00														
Per Diem (days)	\$100.00	4.0	\$400.00	-	\$0.00	-	\$0.00	4.0			\$0.00		\$0.00			4.0															
TOTAL OTHER DIRECT COSTS			\$1,687.50		\$0.00		\$0.00		\$1,687.50		\$0.00		\$0.00		\$0.00		\$1,687.50														
GRAND TOTAL			\$89.928.80														\$89.928.80														

INDUSTRIAL DIVERS CORP.

2901 SW 3rd Ave STE #5 Fort Lauderdale, FL 33315 (954) 523-2906 Office (954) 525-6521 Fax idc-office@att.net

Proposal					
Date	Submitted by				
7/22/2021	A. Delgado				

Name / Address
GHD Jesse Davis PE, ENV SP 8000 Governor's Square Blvd Suite 410 Miami Lakes, Florida 33016

Project Address
Jesse Davis, PE, ENV SP Senior Coastal Engineer 786 447 7972 Mobile
jesse.davis@ghd.com

Project Name / Job No.	Terms
Key West Dock Inspection	Purchase Order

Description	Qty	Rate	Total
*Revised on August 6, 2021 Level I & II survey of approximately 450LF of concrete panel and king pile seawall at the Margaret Street Marina Dock. Industrial Divers Corporation (IDC) will provide a three diver team surface supplied with communications equipped diving helmets for a diver and standby diver. IDC will perform a complete level I visual inspection of the seawall and king piles. IDC will also spot clean at pre-determined intervals (per engineering requirements) to perform hammer tapping of concrete panels and king piles as part of a level II inspection to determine concrete soundness. Lastly, IDC will perform seawall embedment depth checks by jet probing with a hooked probe the concrete panels at pre-determined intervals (per engineering requirements).	2		
Rates: (Non-Prevailing Wage Determination) 3 Diver Team Straight Time: \$257.50/Hour "door to door" Monday - Friday 060 hrs. to 1800 hrs. 3 Diver Team Overtime: \$334.75/Hour "door to door" weekends, holidays and night shift 1800 - 0600 hrs.	0		
Mileage: Round trip from Fort Lauderdale, FL @ \$0.58/ mile			
Equipment: Closed Circuit video system with lights and/or HD Camera with lights for HD video and digital still photos @ \$250.00/ day			
The above terms and conditions are herby accepted. A finance charge of 1 1/2% per month which is an annual percentage rate of 18% is charged. Purchaser shall be liable for all the	Total		

which is an annual percentage rate of 18% is charged. Purchaser shall be liable for all the cost of collection including reasonable attorney's fee.

Signature	Print Name & Title	Date

INDUSTRIAL DIVERS CORP.

2901 SW 3rd Ave STE #5 Fort Lauderdale, FL 33315 (954) 523-2906 Office (954) 525-6521 Fax idc-office@att.net

Proposal					
Date	Submitted by				
7/22/2021	A. Delgado				

Name / Address
GHD
Jesse Davis PE, ENV SP
8000 Governor's Square Blvd
Suite 410
Miami Lakes, Florida 33016

Project Address	
Jesse Davis, PE, ENV SP Senior Coastal Engineer 786 447 7972 Mobile	
esse.davis@ghd.com	

Project Name / Job No.	Terms		
Key West Dock Inspection	Purchase Order		

Description	Qty	Rate	Total
4K PSI Pressure Washer: \$125.00/ day (customer to provide access to potable			
water supply)			
Hydraulic powered underwater tools: - SM 22 & SM50 submersible hydraulic jet			
pumps, jet probe nozzles, hydraulic power heads with concrete grinding and			
de-scaling whirl away heads with portable hydraulic power pack, and 200' of			
duplex hydraulic hose @ \$350.00/day.			
Project Estimate:			
Day 1 Transit to Key West begin level I & II inspection on Margaret Street			
Marina Dock			
• Mobilization: \$2,000.00	1	2,000.00	2,000.00
• Mileage: Trip from Fort Lauderdale Florida: 200 miles @ \$0.58/mile	200	0.58	116.00
• 3 Diver Team: 12 hours @ \$257.50/hr.	12	257.50	3,090.00
Closed Circuit video system: \$250.00/day	1	250.00	250.00
• 4K PSI Pressure Washer: \$125.00/ day (customer to provide access to potable water supply)	1	125.00	125.00
• Hydraulic powered underwater tools: 1 @ \$350.00/day.	1	350.00	350.00
• Per Diem Lodging - Key West: \$300.00/diver per night	3	300.00	900.00
• Per Diem Meals - Key West:: \$100.00/diver per day	3	100.00	300.00
Day 2 - 3: Complete level I & II inspection on Margaret Street Marina Dock and			
return to Fort Lauderdale			
• 3 Diver Team: 24 hours @ \$257.50/hr.	24	257.50	6,180.00
Closed Circuit video system: \$250.00/day	2	250.00	500.00
The above terms and conditions are herby accepted. A finance charge of 1 1/2% per month	otal		1815) 3350 5151 5151 5151 5151 5151 5151 5151

which is an annual percentage rate of 18% is charged. Purchaser shall be liable for all the cost of collection including reasonable attorney's fee.

T	ota	l
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Signature	Print Name & Title	Date

INDUSTRIAL DIVERS CORP.

2901 SW 3rd Ave STE #5 Fort Lauderdale, FL 33315 (954) 523-2906 Office (954) 525-6521 Fax idc-office@att.net

Proposal		
Date	Submitted by	
7/22/2021	A. Delgado	

Name / Address
GHD
Jesse Davis PE, ENV SP
8000 Governor's Square Blvd
Suite 410
Miami Lakes, Florida 33016

Project Address
Jesse Davis, PE, ENV SP Senior Coastal Engineer 786 447 7972 Mobile Jesse.davis@ghd.com

Project Name / Job No.	Terms		
Key West Dock Inspection	Purchase Order		

Description	Qty	Rate	Total
4K PSI Pressure Washer: \$125.00/ day (customer to provide access to potable	1	125.00	125.00
vater supply)			
Hydraulic powered underwater tools: 2 days @ \$350.00/day.	2	350.00	700.00
Per Diem Lodging - Key West: \$300.00/diver per night	3	300.00	900.00
Per Diem Meals - Key West: \$100.00/diver per day	6	100.00	600.00
Mileage: Trip to Fort Lauderdale Florida: 200 miles @ \$0.58/mile	200	0.58	116.00
Report & Video Processing:			
Office personnel report writing and video processing: 8 hours @ \$75.00/ hour	8	75.00	600.00
Proposal e-mailed to Jesse Davis <jesse.davis@ghd.com> & Melissa Burns <melissa.burns@ghd.com></melissa.burns@ghd.com></jesse.davis@ghd.com>			

The above terms and conditions are herby accepted. A finance charge of 1 1/2% per month which is an annual percentage rate of 18% is charged. Purchaser shall be liable for all the cost of collection including reasonable attorney's fee.

Total \$16,852.00

Signature Print Name & Title Date