WORK ORDER 2018006 - 21

pursuant to that certain Engineering and Biologi for Professional Services, dated January 9, 20	to as of this day of, 2025, cal Support Services Contract for Sector 3 Agreement 18, ("Agreement"), by and between INDIAN RIVER f Florida ("COUNTY") and Aptim Environmental and
Exhibit A (Scope of Work), attached to this Worprofessional services will be performed by the Comaximum amount not-to-exceed professional for the Consultant will perform the professional service Exhibit A (Time Schedule), attached to this Worken accordance with the terms and provisions set the Agreement, nothing contained in any Work	nt to perform the professional services set forth on k Order and made part hereof by this reference. The onsultant for the mutually agreed upon lump sum or e.e. Any additional costs must be approved in writing. vices within the timeframe more particularly set forth ork Order and made a part hereof by this reference all forth in the Agreement. Pursuant to paragraph 1.3 of Order shall conflict with the terms of the Agreement d to be incorporated in each individual Work Order as
IN WITNESS WHEREOF, the parties heret written above.	to have executed this Work Order as of the date first
CONSULTANT:	BOARD OF COUNTY COMMISSIONERS OF INDIAN RIVER COUNTY:
Ву:	
Name:	By:
Title:	Joseph E. Flescher, Chairman
	BCC Approval Date:
	By:
	John A. Titkanich, Jr., County Administrator
	Approved as to Form and Legal Sufficiency:
	Ву:
	Jennifer W. Shuler, County Attorney
	Ryan L. Butler, Clerk of Court and Comptroller
	Attest:
	Deputy Clerk

(SEAL)



Aptim Environmental & Infrastructure, LLC 6401 Congress Avenue, Suite 140

Boca Raton, FL 33487 Tel: +1 561 391 8102 Fax: +1 561 391 9116

www.aptim.com

June 17, 2025 (Revised)

Mr. Eric Charest Indian River County Public Works - Coastal Division 1801 27th St, Building A Vero Beach, FL 32960

Subject: Indian River County, FL

Sector 3 – 2018006 – Work Order #21 Sector 3 Hardbottom Impact Analysis

Dear Eric:

This proposal outlines a scope of work for Aptim Environmental & Infrastructure, LLC (APTIM), to provide professional services to Indian River County (the County) in support of the Sector 3 Beach and Dune Restoration Project. The scope of work described herein is to support the County with a hardbottom impact analysis to explore the feasibility of increased fill templates along portions of the Sector 3 shoreline.

The tasks to perform this work are listed below and described on the following pages. A breakdown of the hours and expenses to develop the cost is attached. The scope and fee proposal were developed following the provisions of the Professional Services Agreement between Indian River County and APTIM, dated January 9, 2018, to provide engineering and biological support services in support of the Sector 3 (Wabasso Beach) Beach and Dune Restoration Project (RFQ#2018006).

Task 1: Profile Analysis

APTIM will analyze historic beach profile and hardbottom monitoring area to determine candidate areas for increased fill density. APTIM proposes the following services as components of this study:

- Determine candidate profiles for increased fill (erosion rates, hardbottom location, etc.)
- Develop preliminary fill templates
- Develop equilibrium profiles
- Plot seaward limit of fill and perform impact analysis
- Finalize beach fill template
- Modeling of increased fill densities

The monitoring data will be used to demonstrate fill areas best suited for increased fill templates within the Sector 3 Project Area. This will provide a degree of additional storm protection and allow for less frequent renourishment episodes. Previous nourishment projects had relatively thin fill sections, primarily to avoid hardbottom coverage using a method acceptable to FDEP. Thinner fill sections are subject higher loss rates by percentage. A wider and higher beach will moderate these loses, increasing the project durability. In addition, the biological monitoring study has not shown any significant reef impacts attributable to the past projects. Conclusions of this study will support the supposition that a wider and higher beach.



Deliverable

APTIM will distribute cross-sections and impact areas to the County for review.

Schedule

APTIM will provide findings of profile analysis within ninety (90) days of commencement of study.

Cost

The lump sum cost for this task is \$55,644.00.

Task 2: Desktop Feasibility Report

APTIM will prepare a report of findings from hardbottom impact analysis detailed in Task 1. The report will include acreage of impacts, recommended cross-sections, engineering basis for selection of profiles, and a path forward for permitting. Hardbottom maps will also be included as an appendix. It is the goal of this report to serve as the foundation for obtaining a permit modification to increase fill constructions at targeted sections of the Sector 3 project.

Deliverable

APTIM will distribute a draft report for County review and provide final report incorporating County comments.

Schedule

APTIM will distribute the draft report thirty (30) days from completion of the hardbottom impact analysis. A final report will be provided fourteen (14) days after receipt of County comments on the draft report.

Cost

The lump sum cost for this task is \$22,898.00.

Task 3: Public Meetings

APTIM will attend up to three (3) public meetings as required to distribute findings to the residents, Board of County Commissioners, or Beach and Shore Preservation Advisory Committee as requested by staff.

Deliverable

APTIM will create a presentation prior to public meeting for County review and approval.

Schedule

This task is as needed, but sufficient notice will be coordinated with the County for review and approval of presentation.

Cost

The lump sum cost for this task is \$12,577.50.



Summary

The total lump sum cost to perform the proposed work described herein for Sector 3 – 2018006 – Work Order #21 is \$91,119.50. Please refer to Exhibit A, attached to the end of this proposal, for a summary of the costs and labor hours of each Task. APTIM will proceed with the tasks upon receipt of a signed work order from Indian River County (unless stated otherwise in the schedule). APTIM will strive to execute each phase of the work within budget and in as expeditious a manner according to construction progress. We will coordinate with the County in the event that any unforeseen issues or circumstances with the scope, schedule, or budget arise.

Thank you for the opportunity to serve Indian River County. We look forward to continuing to provide expert professional services to the County. Please do not hesitate to call if you have any questions.

Sincerely,		
Nicole S. Sharp, P.E. Director, Civil and Coastal Engineering Aptim Environmental & Infrastructure, LLC	Client Authorized Signature	
	Printed Name	



EXHIBIT 1



Indian River County, FL Sector 3 - 2018006 - Work Order #21 Sector 3 Hardbottom Impact Analysis

Summary of Cost by Task

Task Number	Task Name	Labor		Subcontractors		Equipment		Materials	Other ODCs		Travel		Totals	
Task 1	Profile Analysis	\$	52,644.00	\$ -	\$	3,000.00	\$	-	\$	-	\$		\$	55,644.00
Task 2	Desktop Feasbility Study	\$	22,898.00										\$	22,898.00
Task 3	Public Meetings	\$	11,400.00		\$	1,177.50							\$	12,577.50
	Totals =	\$	86,942.00	\$ -	\$	4,177.50	\$	-	\$	-	\$	-	\$	91,119.50

 Submitted By:
 Nicole Sharp

 Submitted To:
 Indian River County, FL

 Submission Date:
 05/01/25

Summary of Labor Hours and Cost

Cummary of Europi flours and Cook														
			Profile Analysis			Desktop Feasbility Report			Publi	eetings				
			Task 1			Task 2			-	(3	Totals			
		:				I don Z		Task 3			1 otalo			
	La	abor Bill	Labor			Labor			Labor			Labor		
Labor Title		Rate	Hours		Cost	Hours		Cost	Hours		Cost	Hours		Cost
Principal Engineer/Sr Proj Mngr	\$	250.00		\$	-		\$	-				-	\$	-
Expert Witness (Testimony)	\$	300.00		\$	-		\$	-				-	\$	-
Program Manager	\$	190.00	50	\$	9,500.00	20	\$	3,800.00	24	\$	4,560.00	94	\$	17,860.00
Sr Coastal Engineer/Proj Mngr	\$	165.00		\$	-		\$	-				-	\$	-
Coastal Engineer III	\$	150.00	140	\$	21,000.00	70	\$	10,500.00	24	\$	3,600.00	234	\$	35,100.00
Coastal Engineer II	\$	125.00		\$	-		\$					-	\$	-
Coastal Engineer I	\$	105.00		\$	-		\$	-				-	\$	-
Coastal Modeler II	\$	130.00	40	\$	5,200.00	20	\$	2,600.00				60	\$	7,800.00
Coastal Modeler I	\$	110.00		\$	-		\$	-				-	\$	-
Professional Surveyor & Mapper	\$	145.00		\$	-		\$	-				-	\$	-
Hydrographer	\$	135.00		\$	-		\$	-				-	\$	-
Surveyor	\$	95.00		\$	-		\$	-				-	\$	-
Survey Technician	\$	80.00		\$	-		\$	-				-	\$	-
Senior Marine Biologist	\$	135.00	56	\$	7,560.00	20	\$	2,700.00	24	\$	3,240.00	100	\$	13,500.00
Marine Biologist II	\$	95.00		\$	-		\$	-				-	\$	-
Marine Biologist I	\$	72.00		\$	-		\$	-				-	\$	-
Professional Geologist	\$	150.00		\$	-		\$	-				-	\$	-
Geologist III	\$	130.00		\$	-		\$	-				-	\$	-
Geologist II	\$	95.00		\$	-		\$	-				-	\$	-
Geologist I	\$	80.00		\$	-		\$	-				-	\$	-
Senior CAD Operator	\$	140.00	8	\$	1,120.00		\$	-				8	\$	1,120.00
CAD Operator	\$	105.00	42	\$	4,410.00	16	\$	1,680.00				58	\$	6,090.00
GIS Operator	\$	105.00	34	\$	3,570.00	10	\$	1,050.00				44	\$	4,620.00
Boat Captain	\$	80.00		\$	-		\$	-				-	\$	-
Bookkeeper	\$	80.00		\$	-		\$	-				-	\$	-
Clerical	\$	71.00	4	\$	284.00	8	\$	568.00				12	\$	852.00
Technician	\$	60.00		\$	-		\$	-				-	\$	-
Subcontractors		-	-	\$	-							-	\$	-
Equipment		-	-	\$	3,000.00							-	\$	
Materials		-	-	\$	-							-	\$,
Other ODCs		-	_	\$	-							-	\$	
Mobilization/Demob		-	-	\$	-					\$	1,177.50	-	\$	1,177.50
TOTAL		-	374	\$	55,644.00	164	\$	22,898.00	72		12,577.50	610	,	91,119.50
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