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### EXECUTIVE SUMMARY

Recommend Approval of Work Order No. CPE-FT-08-04 with Coastal Planning and Engineering for Wiggins Pass Hydrographic Surveying for a Not-To-Exceed, Time and Material amount of \$27,535.25 (Project 195-905221)

**<u>OBJECTIVE</u>**: To approve Work Order No. CPE-FT-08-04 under Contract 06-3902 for a not-to-exceed, time and material amount of \$27,535.25.

**<u>CONSIDERATIONS</u>**: The surveying/monitoring for this project needs to be completed now so construction can occur after this year's Sea Turtle Monitoring season.

**ADVISORY COMMITTEE RECOMMENDATIONS:** At the Coastal Advisory Committee (CAC) June 12, 2008 meeting the above project was recommended for approval. **This recommendation carried unanimously 8-0.** 

**COUNTY ATTORNEY FINDING:** Reviewed and approved for legal sufficiency. -CMG

**FISCAL IMPACT**: The Source of funds is from Category "A" Tourist Development Tax Project (905221).

**<u>GROWTH MANAGEMENT IMPACT</u>**: There is no impact to the Growth Management Plan related to this action.

**<u>RECOMMENDATION</u>**: To recommend approval of Work Order No. CPE-FT-08-04 with Coastal Planning and Engineering for Wiggins Pass Hydrographic Surveying for not-to-exceed, time and material amount of \$27,535.25.

PREPARED BY: Gail Hambright, Tourist Tax Coordinator

# COASTAL PLANNING & ENGINEERING, INC.

2481 NW BOCA RATON BOULEVARD, BOCA RATON, FL 33431

561-391-8102 PHONE 561-391-9116 FAX INTERNET: <u>http://www.coastalplanning.net</u> e-mail: <u>mail@coastalplanning.net</u>

June 6, 2008

Gary McAlpin Director Collier County Coastal Zone Management 3300 Santa Barbara Blvd. Naples, FL 34116

#### Re: Wiggins Pass Hydrographic Surveying Proposal

Dear Gary:

This letter is in response to your request for a proposal for Hydrographic Surveying Services for Wiggins Pass. The survey will be used to meet annual monitoring requirements and design the next maintenance dredging. The following services are proposed in accordance with the project permit:

#### Task I:Hydrographic Surveying Services (\$27,535.25 T&M Not to Exceed):

This scope of services will provide survey services for the Wiggins Pass Dredging Project required by the State permit and needed for design (FDEP Permit No. 142538006). The survey will cover the navigation channel, the adjacent beaches and the interior channels as shown on the 2006 H&M construction plans.

The following are the services to be provided in this scope of services and the fee proposal is as shown on the attached spreadsheet.

#### **Beach Profile Survey**

Topographic and Hydrographic profile surveys will be collected from R-10 though R-22 for a total of twelve (12) beach profile lines. All work will be conducted in accordance to Section 01000 (Beach Profile Topographic Surveying) and 01100 (Offshore Profile Surveying) of the March 2004 Bureau of Beaches and Coastal Systems Monitoring Standards for Beach Erosion Control Projects including field methodology and final deliverables. http://www.dep.state.fl.us/beaches/publications/pdf/standard.pdf

Prior to the start of the survey a reconnaissance of FDEP second order monuments shall be conducted to confirm that survey control is in place and undisturbed using Real Time Kinematic Global Positioning System (RTK GPS). In order to achieve required accuracy, the survey shall be controlled using FDEP 2<sup>nd</sup> order monuments. All assessable 2<sup>nd</sup> and 3<sup>rd</sup> order FDEP control monuments in the project area shall be located using RTK GPS.

All data seaward of the dune shall be collected using RTK GPS technology. Upland areas inaccessible to RTK GPS shall be collected using standard differential leveling techniques. Upland topography shall extend approximately 150 feet landward of the vegetation line or until an obstacle is encountered.

An American Congress of Surveyors and Mappers (ACSM) Certified Hydrographer shall oversee all hydrographic surveys for nearshore, offshore and inlet surveys. Hydrographic portions of the profile line shall be collected from a survey vessel equipped with RTK GPS technology and a dynamic motion sensor to provided instantaneous tide and motion corrections. Standard hydrographic procedures shall be followed including all necessary quality control checks. Horizontal and vertical positioning checks will be conducted at the beginning and end of each day using second order FDEP monuments located in the project area. The fathometer will be calibrated via bar-checks and a sound velocity probe at the beginning and end of each day. The DIGIBAR PRO sound velocity meter or equivalent which provides a fast additional calibration for sound velocity as compared to the traditional bar check shall be used. More specifically, bar checks will be performed from a depth of five feet to a maximum depth of twenty-five feet. Analog data showing the results of the bar check calibration will be displayed on the fathometer charts at five foot increments during descent and ascent of the bar.

In order to maintain the vessel navigation along the profile lines HYPACK navigation software or equivalent shall be used. This software shall provided horizontal position to the sounding data allowing real-time review of the profile data in plan view or cross section format. The navigation software shall also provided navigation to the helm to control the deviation from the online azimuth. The landward limits of the hydrographic survey shall be based on a minimum of fifty feet beyond the seaward extent of the beach profile. Profiles shall extend seaward beyond the depth of closure.

### Navigation Channel and Interior Inlet Hydrographic Survey

Eighteen (18) nearshore cross-sections (Station -2+00 to Station 15+00) will be surveyed at the mouth of Wiggins Pass and thirty-four (34) cross-sections (Stations C-1 to C-34) will be surveyed in the interior of the Pass as surveyed in previous post-construction survey events. An ACSM Certified Hydrographer shall oversee the hydrographic survey. All work will be conducted in accordance to Section 01200 (Borrow Site, Shoal and Other Bathymetric Surveying) of the March 2004 Bureau of Beaches and Coastal Systems Monitoring Standards for Beach Erosion Control Projects.

Cross-sections will be collected from a survey vessel equipped with RTK GPS technology and a dynamic motion sensor to provided instantaneous tide and motion corrections. Standard hydrographic procedures shall be followed including all necessary quality control checks. Horizontal and vertical positioning checks will be conducted at the beginning and end of each day. The fathometer will be calibrated via bar-checks and a sound velocity probe at the beginning and end of each day. The DIGIBAR PRO sound velocity meter or equivalent which provides a fast additional calibration for sound velocity as compared to the traditional bar check shall be used. More specifically, bar checks will be performed from a depth of five feet to a

maximum depth of twenty-five feet or a depth representing the maximum potential depth of the survey area. Analog data showing the results of the bar check calibration will be displayed on the fathometer charts at five foot increments during descent and ascent of the bar. In order to maintain the vessel navigation along the profile lines HYPACK navigation software or equivalent shall be used. This software provided horizontal position to the sounding data allowing real-time review of the profile data in plan view or cross section format. The navigation software will also provided navigation to the helm to control the deviation from the online azimuth.

### Deliverables

Coastal Planning & Engineering, Inc. will provide all required monitoring data certified by a Florida Professional Surveyor and Mapper (PSM) including FDEP formatted data files, survey field notes, beach profile and inlet cross-section plots, GIS plan view maps, digital ground photography as well as all other required deliverables included in Section 01000, 01100, and 01200 of the FDEP Monitoring Standards for Beach Erosion control Projects <u>http://www.dep.state.fl.us/beaches/publications/pdf/standard.pdf</u>. The report will include a comparison of surveyed cross-sections and profiles compare to the post-construction and/or navigation template conditions along with a volume change summary. The results will be used in the modeling program. Four (4) copies of the report with the accompanying data will be provided.

#### Schedule

The survey of Wiggins Pass will be initiated upon issuance of the notice to proceed.

Please authorize us to proceed by issuance of a purchase order. If you have any questions, please contact me.

Very truly yours,

COASTAL PLANNING & ENGINEERING, INC.

Stephen Keehn, P.E.

Senior Coastal Engineer

cc: James Taylor, CPE

enclosures

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#### TASK I WIGGINS PASS HYDROGRAPHIC SURVEY SUBMITTED BY: COASTAL PLANNING & ENGINEERING, INC.

					LABOR COSTS	i			
DESCRIPTION	Principal / President	Senior Engineer	Engineer III	Senior Surveyor & Mapper	Surveyor and Mapper Junior	Senior Technician	GPS Mapping Grade: Three Man Party	Senior Technician	Admin Asst/Secretary
	(Hours)	(Hours)	(Hours)	(Hours)	(Hours)	(Hours)	(Hours)	(Hours)	(Hours)
1. ADMINISTRATION / PLANNING	1	2		4	2				2
2. MOBILIZATION / DEMOBILIZATION/TRAVEL					4	8	8		
3. SEGMENT 1-13 BEACH PROFILES					4	6	6		
4. SEGMENT 2- NAVIGATION CHANNEL SURVEY- 18 CROSS SECTIONS					4	6	6		
5. SEGMENT 3- INTERIOR CROSS-SECTIONS- 34 CROSS SECTIONS					4	12	12		
6. DATA REDUCTION				4	8	8		8	
7. DATA SUBMITTAL, REPORTING AND ANALYSIS		6	32	4	8	14		16	4
Total = Labor Rate / Hour = Labor Cost =	1 \$185.00 \$185.00	8 \$150.00 \$1,200.00	32 115 \$3,680.00	12 \$145.00 \$1,740.00	34 \$110.00 \$3,740.00	54 \$85.00 \$4,590.00	32 \$165.00 \$5,280.00	24 \$85.00 \$2,040.00	6 \$55.00 \$330.00
TASK I LABOR COST = TASK I EQUIPMENT COST = TASK I DIRECT COST =	\$22,785.00 \$3,665.00 \$1,085.25								
TASK I TOTAL COST =	\$27,535.25								

#### TASK I Continued WIGGINS PASS HYDROGRAPHIC SURVEY

#### SUBMITTED BY: COASTAL PLANNING & ENGINEERING, INC.

	EQUIPMENT COSTS					DIRECT COSTS						
DESCRIPTION	Trimble RTK GPS	Survey Boat (24 ft. Privateer)	Hypack Navigation System	Heave, Pitch, Roll Compensator	Fathometer / Odom Hydrotrack Sounder	Digital Land Camera	Mobile Phone	Scuba Diving Equipment & Insurance		Meals	Lodging	Misc. Expenses
	(Days)	(Days)	(Days)	(Days)	(Days)	(Days)	(Days)	(Days)	(Miles)	(Days)	(Days)	(\$)
1. ADMINISTRATION / PLANNING									I			
2. MOBILIZATION / DEMOBILIZATION/TRAVEL									250			200
3. SEGMENT 1- 13 BEACH PROFILES	1							2	I	3	2	
4. SEGMENT 2- NAVIGATION CHANNEL SURVEY- 18 CROSS SECTIONS		1	1	1	1	1	1		I	3	2	
5. SEGMENT 3- INTERIOR CROSS-SECTIONS- 34 CROSS SECTIONS	1	1	1		1	1	1		I	3		
6. DATA REDUCTION									I			
7. DATA SUBMITTAL, REPORTING AND ANALYSIS									1			
Total = Labor Rate / Hour = Labor Cost =	2 \$415 \$830	2 \$790 \$1,580	2 \$260 \$520	1 \$215 \$215	2 \$165 \$330	2 \$10 \$20	2 \$10 \$20	2 \$75 \$150	250 \$0.445 \$111.25	9 \$36.00 \$324.00	4 \$125.00 \$500.00	\$200.00 1.00 \$200.00
TASK I EQUIPMENT COST = TASK I DIRECT COST =	\$3,665 \$1,135											

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### Exhibit 1-A

### Revised Schedule B – Effective May 9, 2008

### **Collier County Fee Schedule**

### Contract No. 06-3902

## "Fixed Term Professional Engineering Services for Coastal Zone Management Projects"

Professional Position	Hourly Rate
Principal/President	\$185.00/hr
Principal/VP Engineering/Senior Project Manager	\$170.00/hr
Project Manager/Senior Engineer/Senior Consultant	\$150.00/hr
Project Director	\$145.00/hr
Project Engineer/architect	\$140.00/hr
Project Construction Manager	\$130.00/hr
Senior Designer	\$120.00/hr
Senior Hydrogeologist	\$127.00/hr
Junior Hydrogeologist	\$ 90.00/hr
Coastal Modeler	\$110.00/hr
Principle Ecologist	\$160.00/hr
Senior Ecologist	\$120.00/hr
Ecologist	\$100.00/hr
Field Ecologist	\$ 95.00/hr
Engineer III	\$115.00/hr
Engineer II/Field Representative /Sr. Landscape Architect/Sr. Scientist	\$125.00/hr
Senior Technician	\$ 85.00/hr
Junior Technician	\$ 65.00/hr
Expert Witness	\$250.00/hr

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## Survey & Mapping

Surveyor and Mapper Senior	\$145.00/hr.
Surveyor and Mapper Junior	\$110.00/hr
Two Man Field Party	\$125.00/hr
Three Man Field Party	\$150.00/hr
Four Man Field Party	\$170.00/hr
GPS Mapping Grade: One Man Party	\$ 95.00/hr
GPS Mapping Grade: Two Man Party	\$125.00/hr
GPS Mapping Grade: Three Man Party	\$165.00/hr
GPS Survey Grade: One or Two Man Party	\$160.00/hr
GPS Survey Grade: Three Man Party	\$165.00/hr
GIS	
Principle GIS Consultant	\$170.00/hr
Senior GIS Consultant/Analyst	\$160.00/hr
GIS Technician	\$ 65.00/hr.

## Administrative

Administrative Assistant/Secretary	\$ 55.00/hr.
Clerical, other support	\$ 40.00/hr.

This list is not intended to be all-inclusive. Hourly rate fees for other categories of professional, support and other services shall be mutually negotiated by the County and firm on a project by project basis as needed.

#### CONTRACT/WORK ORDER MODIFICATION CHECKLIST FORM

June 23, 2008 New Business VI - 6 9 of 14

### PROJECT NAME: Professional Engineering Services for Coastal Zone Management Projects PROJECT #: NA

PROJECT MANAGER: Gary McAlpin

BID/RFP #: 06-3902 MOD #: 1\_PO#:\_NA\_\_\_\_ WORK ORDER #:\_\_\_NA\_\_\_

DEPARTMENT: Coastal Zone Management CONTRACTOR/FIRM NAME: Coastal Planning and Engineering and Humiston & Moore, Engineers

Original Contract Amount:	\$NA(Starting Point)
Current BCC Approved Amount:	NA (Last Total Amount Approved by the BCC)
Current Contract Amount:	\$ NA (Including All Changes Prior To This Modification)
Change Amount:	\$ <u>0</u>
Revised Contract/Work Order Amount:	\$NA (Including This Change Order)
Cumulative Dollar Value of Changes to this Contract/Work Order:	\$ <u>NA</u>
Date of Last BCC Approval NA	Agenda Item #NA
Percentage of the change over/under cur Formula: (Revised Amount / Last BCC appr	rrent contract amount0% oved amount)-1
CURRENT COMPLETION DATE (S): ORIG	INAL: NACURRENT: NA
Describe the change(s): <u>To provide</u> Contract.	e for a fee schedule increase and the addition of professional positions to the
Adjustments C 4. Correction of Erro	s) 🗭 1. Planned or Elective 🌔 2. Unforeseen Conditions 🛛 🕒 3. Quantity ors (Plans, Specifications or Scope of Work) 🦳 5. Value Added One or more may be checked, depending on the nature of the change(s).
Identify all negative impacts to the p not include enough staff positions prop similar contracts established in 2007.	<b>roject if this change order were not processed:</b> The agreement currently does portionate to the amount of work generated and the hourly rates are lower than
This change was requested by: 🗆 Co	entractor/Consultant 🔽 Owner 📕 Using Department 🗖 CDES
□Design Professional □Regulatory	Agency (Specify) 「Other (Specify)
CONTRACT SPECIALIST PARTICIPA	TION IN NEGOTIATIONS: Ves No
This form is to be signed and dated.	1
APPROVED BY: Min MC	Date: 17508 or Coastal Zone Mgmt.
REVIEWED BY: Linda Jackson Best,	Date: 2/26/08

Revised 11.19.2007

#### June 23, 2008 New Business VI - 6 10 of 14

#### **EXHIBIT A-1 Contract Amendment #1 Contract No. 06-3902**

#### "Professional Engineering Services for Coastal Zone Management Projects"

This amendment, dated <u>frue</u> 23, 2008 to the referenced agreement shall be by and between the parties to the original Agreement, Humiston & Moore Engineers (to be referred to as "Consultant") and Collier County, Florida, (to be referred to as "Owner").

#### Statement of Understanding

RE: Contract # 06-3902, "Professional Engineering Services for Coastal Zone Management Projects"

In order to continue the services provided for in the original Contract document referenced above, the Consultant agrees to amend the above referenced Contract as follows:

Replace existing Schedule B with the attached revised Schedule B, Exhibit 1-A, to increase hourly rates, and to expand the categories of professional positions. The hourly rate increases and additional professional positions will commence on May 9, 2008, at the time of the contract renewal period.

All other terms and conditions of the agreement shall remain in force.

IN WITNESS WHEREOF, the Consultant and the Owner have each, respectively, by an authorized person or agent, hereunder set their hands and seals on the date(s) indicated below.

Accepted: July 26 2008

**CONSULTANT:** 

HUMISTON & MOORE **ENGINEERS** 

By: the Hemist

Kenneth K. Humiston, P.E., President

Witness

By: Celia Jeelous, Contract Com

Print Name and Title

**OWNER:** 

BOARD OF COUNTY COMMISSIONERS COLLIER COUNTY, FLORIDA

By: C Clinton L. Perryman, CQ

Project Manager

DEPARTMENT DIRECTOR

By: May Man

CONTRACT SPECIALIST By: <u>*Lice Hall KSt*</u> Linda Jackson Best

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## Exhibit 1-A

,

### Revised Schedule B – Effective May 9, 2008

### **Collier County Fee Schedule**

### Contract No. 06-3902

# "Fixed Term Professional Engineering Services for Coastal Zone Management Projects"

Professional Position	<b>Hourly Rate</b>
Principal/President	\$185.00/hr
Principal/VP Engineering/Senior Project Manager	\$170.00/hr
Project Manager/Senior Engineer/Senior Consultant	\$150.00/hr
Project Director	\$145.00/hr
Project Engineer/architect	\$140.00/hr
Project Construction Manager	\$130.00/hr
Senior Designer	\$120.00/hr
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Ecologist	\$100.00/hr
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Senior Technician	\$ 85.00/hr
Junior Technician	\$ 65.00/hr
Expert Witness	\$250.00/hr

#### EXHIBIT A-1 Contract Amendment # 1 Contract No. 06-3902

"Professional Engineering Services for Coastal Zone Management Projects"

#### Statement of Understanding

RE: Contract # 06-3902, "Professional Engineering Services for Coastal Zone Management Projects"

In order to continue the services provided for in the original Contract document referenced above, the Consultant agrees to amend the above referenced Contract as follows:

Replace existing Schedule B with the attached revised Schedule B, Exhibit 1-A, to increase hourly rates, and to expand the categories of professional positions. The hourly rate increases and additional professional positions will commence on May 9, 2008, at the time of the contract renewal period.

All other terms and conditions of the agreement shall remain in force.

**IN WITNESS WHEREOF,** the Consultant and the Owner have each, respectively, by an authorized person or agent, hereunder set their hands and seals on the date(s) indicated below.

CONSULTANT:

Witness

By:

COASTAL PL ENGINEERI By: P.E., President Fljømas J Campbell,

Accepted: <u>Lebillary 26</u> 2008

OWNER:

BOARD OF COUNTY COMMISSIONERS COLLIER COUNTY, FLORIDA

By: Clinton L. Perryman, OGC, PMP

Project Manager

Print Name and Title

DEPARTMENT DIRECTOR

By: 1/ Harry 19 Gary McAlpin

CONTRACT SPECIALIST By: Jal Cochr Sint Linda Jackson Best

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## Exhibit 1-A

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## Revised Schedule B – Effective May 9, 2008

### **Collier County Fee Schedule**

### Contract No. 06-3902

# "Fixed Term Professional Engineering Services for Coastal Zone Management Projects"

Professional Position	Hourly Rate
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Senior Ecologist	\$120.00/hr
Ecologist	\$100.00/hr
Field Ecologist	\$ 95.00/hr
Engineer III	\$115.00/hr
Engineer II/Field Representative /Sr. Landscape Architect/Sr. Scientist	\$125.00/hr
Senior Technician	\$ 85.00/hr
Junior Technician	\$ 65.00/hr
Expert Witness	\$250.00/hr

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### Survey & Mapping

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Surveyor and Mapper Junior	\$110.00/hr
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Four Man Field Party	\$170.00/hr
GPS Mapping Grade: One Man Party	\$ 95.00/hr
GPS Mapping Grade: Two Man Party	\$125.00/hr
GPS Mapping Grade: Three Man Party	\$165.00/hr
GPS Survey Grade: One or Two Man Party	\$160.00/hr
GPS Survey Grade: Three Man Party	\$165.00/hr
GIS	
Principle GIS Consultant	\$170.00/hr
Senior GIS Consultant/Analyst	\$160.00/hr
GIS Technician	\$ 65.00/hr.
Administrative	

Administrative Assistant/Secretary	\$ 55.00/hr.
Clerical, other support	\$ 40.00/hr.

This list is not intended to be all-inclusive. Hourly rate fees for other categories of professional, support and other services shall be mutually negotiated by the County and firm on a project by project basis as needed.