

**PALM BEACH COUNTY  
BOARD OF COUNTY COMMISSIONERS**

## AGENDA ITEM SUMMARY

**Meeting Date:** January 9, 2007

**(X) Consent**

( ) Regular

( ) Workshop

( ) Public Hearing

Department

**Submitted By:** Environmental Resources Management

Submitted For: Environmental Resources Management

## I. EXECUTIVE BRIEF

**Motion and title: Staff recommends motion to approve:** Task Order No. 0688-02 to a continuing Contract (R2006-0688) with Applied Technology & Management, Inc. (ATM) in the amount of \$211,260.57 to provide professional coastal engineering design and permitting services in support of the beach renourishment project for Juno Beach.

**Summary:** The BCC approved the Contract with ATM on April 18, 2006. One (1) task order totaling \$62,897 has been issued under the Contract. Task Order No. 0688-02 authorizes ATM to design and permit the upcoming Juno Beach renourishment. ATM will also complete the fifth (5<sup>th</sup>) year post-construction engineering performance analysis and report for the original nourishment as required under Florida Department of Environmental Protection (DEP) permit number 0127642-001-JC. The County is negotiating a new funding agreement with DEP in order to cover these Juno Beach costs. ATM committed to an overall 20% small business and minority business enterprise (SBE-MBE) participation in the Contract. This Task Order has 12% MBE participation. ATM has achieved 9.3% cumulative SBE-MBE participation on the Contract including this Task Order. District 1 (JM)

**Background and Justification:** Construction of the Juno Beach Shore Protection Project was successfully completed in February 2001 and included placement of 1.1 million cubic yards of sand over 2.4 miles of primarily public beachfront. The Juno Project will be 6 years post-construction in the fall 2007, which is the scheduled renourishment date. The County must obtain new permits from DEP and Army Corps of Engineers for the impending renourishment.

**Attachments:**

1. Task Order No. 0688-02 with Contract History
2. Contract (pages 1, 18, Fee Schedule)

**Recommended by:**

**Department Director**

Date /

**Approved by:**

## County Administrator

Date \_\_\_\_\_

## II. FISCAL IMPACT ANALYSIS

### A. Five Year Summary of Fiscal Impact:

Fiscal Years	2007	2008	2009	2010	2011
Capital Expenditures	\$211,260 <sup>57</sup>	_____	_____	_____	_____
Operating Costs	_____	_____	_____	_____	_____
External Revenues	_____	_____	_____	_____	_____
Program Income (County)	_____	_____	_____	_____	_____
In-Kind Match (County)	_____	_____	_____	_____	_____
NET FISCAL IMPACT	\$211,260 <sup>57</sup>	_____	_____	_____	_____
# ADDITIONAL FTE POSITIONS (Cumulative)	_____	_____	_____	_____	_____

Is Item Included in Current Budget? Yes X No \_\_\_\_\_  
Budget Account No.: Fund 3652 Department 381 Unit M028 Object 3120  
Program \_\_\_\_\_

### B. Recommended Sources of Funds/Summary of Fiscal Impact:

### C. Department Fiscal Review:

## III. REVIEW COMMENTS

### A. OFMB Fiscal and /or Contract Dev. and Control Comments:

James D. Smith 12-14-06 OFMB 12/15/06 Contract Development and Control 12/19/06

### B. Legal Sufficiency:

James C. Mize 12/19/06  
Assistant County Attorney

This item complies with current  
County policies.

### C. Other Department Review:

\_\_\_\_\_  
Department Director

Attachment 1

TASK ORDER

TASK ORDER: 0688-02 CONSULTANT: Applied Technology & Management, Inc.

ACCOUNT: 3652-381-M028-3120-02 CONTRACT: R2006-0688  
[Fiscal approval of Budget Availability:   H  ]

PROJECT MANAGER: Ben Harkanson BH PHONE: 561-233-2519

CONTRACT MANAGER: Juan Cueto JC CT PHONE: 561-233-2431

PROJECT NAME: Juno Beach Renourishment - Engineering and Permitting Services

LOCATION/DISTRICT #: Juno Beach (District 1)

TASK DESCRIPTION (use additional pages if necessary): The consultant shall provide coastal engineering design and permitting services in support of the renourishment of the Juno Beach project, as described in the scope of services.

DELIVERABLES: See proposal dated 11/6/06.

TASK ORDER TYPE: FIXED PRICE DUE DATE: 8/3/07

TOTAL AMOUNT: \$211,260.57 See attached spreadsheet dated 11/6/06  
RETAINAGE: \$ 0

(Check 1 or both)

		for Subcontract Amounts: Black	Hispanic	Women	Other (specify)	White Male
MBE	<input checked="" type="checkbox"/>	\$	\$	\$ <u>25,420.00</u>	\$	
SBE	<input type="checkbox"/>	\$	\$	\$	\$	\$

TOTAL M/WBE-SBE PARTICIPATION: \$ 25,420.00

CONSULTANT REP:   mi   DATE: 11/27/06

ENV. CONTRACT MGR:   JFC   DATE: 11/29/06

DIVISION DIRECTOR:   JBA   DATE: 12/7/06

APPROVED AS TO TERMS AND CONDITIONS:  
ERM DIRECTOR: Richard E. Wadley DATE: 12/7/06

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:  
ASSISTANT COUNTY ATTORNEY: \_\_\_\_\_ DATE: \_\_\_\_\_

BOARD OF COUNTY COMMISSIONERS: \_\_\_\_\_ DATE: \_\_\_\_\_

Addie L. Greene, Chairperson

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APPLIED TECHNOLOGY AND MANAGEMENT



PROPOSAL FOR  
CONSULTING  
ENGINEERING SERVICES

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PALM BEACH COUNTY

Juno Beach Renourishment  
Engineering and Permitting Services

November 6, 2006

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# PROPOSAL FOR CONSULTING ENGINEERING SERVICES

## JUNO BEACH RENOURISHMENT

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### INTRODUCTION

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This proposal is provided by request of Palm Beach County ERM staff to provide coastal engineering design and permitting services in support of the renourishment of the Juno Beach project. Initial nourishment of this shoreline segment extended from reference monument T-26 to R-38 and was conducted under the authority of FDEP permit 0127642-001-JC.

In response to County Staff's request, ATM proposes the following scope of services:

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### TASK 1 – ENGINEERING REVIEW AND DESIGN

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**Applied Technology and Management (ATM)** will provide the coastal engineering and analysis required to develop the renourishment design. This effort will rely heavily on monitoring data collected in relation to the initial nourishment project. No comprehensive numerical modeling is proposed. Key subtasks include:

#### **TASK 1.1 INITIAL NOURISHMENT PERFORMANCE EVALUATION**

ATM will develop a physical monitoring report for the Juno project based on survey data to be acquired in 2006. This monitoring report will include data and analysis as required by the initial nourishment project permit. Data analysis will include delineation of project shoreline and volume in time and estimates of erosion losses. Particular emphasis will be given to volumetric comparisons to the 2005 and 2006 survey data as these surveys capture impacts from significant hurricane events. This report will further address project performance in terms of hardbottom exposure.

**Task 1.1 Deliverable.** Four (4) hard copies and one (1) electronic copy of both the Draft and Final Comprehensive Monitoring Reports will be provided per a DEP funding contract with the County.

#### **TASK 1.2 DRAFT & FINAL BEACH FILL DESIGN**

ATM will finalize the project design based on the performance of the initial nourishment project. ATM will utilize the results of the technical efforts and discussions with agency personnel to optimize the project design and minimize impacts to hardbottom. Opportunities to utilize a 'turtle friendly' design which minimizes beach scarping will be identified and incorporated into the project design. ATM will update estimates of the anticipated fill volume, toe of fill, and hardbottom impact, based on existing survey data and performance of the initial nourishment project. ATM will provide a project construction cost estimate based on current market forces within the dredging industry. All work will be conducted in Florida State Plane, East Zone using the NAD83/90 and NAVD datums.

Task 1.2 Deliverable. Four (4) hard copies and one (1) electronic copy of a letter report summarizing task results. Construction drawings (8 sets) and volumetric tables of project design. AutoCAD files will be provided to the County.

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## **TASK 2 – BORROW AREA DELINEATION AND GEOTECHNICAL TASKS**

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ATM staff will conduct the engineering and analysis tasks required to specify sand deposits within the defined borrow area of sufficient quantity and quality for use in the renourishment project. All geotechnical data will be provided to the FDEP in a format consistent with the ROSS database standards. Specific sub-tasks include:

### **TASK 2.1 Establish Specific Borrow Area Cut Configuration**

At present a new borrow area offshore of Singer Island is under consideration for this project. This source has not been used or permitted previously. The quality of the previous placement was acceptable and project performance was better than anticipated. Use of either BA I or II is not anticipated for this project. A new borrow area is under consideration. A bi-layered beach is currently not planned. A Sediment QA/QC Plan will be developed as part of the approval process for this project and has been added as an additional task (2.5) to this proposal.

Specific borrow area cuts will be delineated based on existing geotechnical information and data to be acquired within this proposal (magnetometer and side-scan surveys). The analysis will include development of a borrow area cut plan sufficient for project permitting. The analysis will also include a calculation of composite grain size based on horizontal and vertical influence areas represented by the individual cores. All work will be conducted in Florida State Plane, East Zone using the NAD83/90 and NAVD datums.

A summary tabulation (and graphics) of the material volumes, composite sediment characteristics, and likely volumetric yields will be prepared in electronic format. Such a tabulation will include borrow area prioritization based on material quality, quantity, proximity to the project shoreline, and means of conveyance with hydraulic dredging equipment and minimal environmental consequence. Engineering drawings will include borrow area position on a scaled location map. A compatibility analysis of the proposed borrow material relative to the native sand characteristics (up to fifty-five (55) sand samples will be collected from the beach per DEP standards and anticipated JCP application needs) will be performed as part of the analysis. The borrow area design will consider potential impacts to nearshore hardbottom resources, required hardbottom buffers and ingress/egress corridors.

Task 2.1 Deliverable. Four (4) hard copies and one (1) electronic copy of a memo summarizing task results. Engineering drawings delineating borrow areas (8 sets). AutoCAD files will be provided to the County

### **TASK 2.2 Perform Side Scan Sonar and Magnetometer Surveys of Candidate Areas**

A side-scan sonar and magnetometer survey of the identified borrow area will be conducted sufficient for submittal to the State Historic Preservation Officer (SHPO). The area to be investigated offshore is assumed for costing purposes to encompass planform areas of approximately 100 acres. Trackline spacing for the survey will be 200 feet on-center grid conducted predominately in an east-west (cross-shore) direction, with tie-lines run at 300 feet on-center in a north-south (alongshore) direction. This grid coverage, including survey boundary overlap and vessel turns, will result in approximately 17 line-

miles of data acquisition. Vessel position will be tied to a Differential Global Positioning System (DGPS). It is estimated that performance of the survey will require two (2) field days (including Mob/Demob).

The side-scan sonar will utilize a Klein 500 kHz side-scan sonar and a Triton Elips Isis Sonar Data Acquisition and Processing System (to acquire the data and develop a side scan mosaic in an ArcView compatible format).

The magnetometer survey will be conducted concurrently with the side-scan survey, and will utilize a Barringer Research Ltd. Model M-234 Proton Magnetometer (or equivalent) with marine sensor and sensor depth transducer unit deployed from a suitable survey vessel along the track lines at speeds between four (4) and five (5) knots. The magnetometer will operate at a cyclic sampling rate of one (1) cycle per second and the magnetometer sensor will be towed no more than ten (10) feet above the bottom. Vessel positioning will be accomplished with differential GPS. Supplementary magnetometer survey track lines will be run as necessary to further assess and pin-point potentially significant magnetic anomalies or to verify the absence of cultural resources. All work will be conducted in Florida State Plane, East Zone using the NAD83/90 and NAVD datums.

This work will be conducted in coordination with a professional archeologist with the intent of using the data for the cultural resource assessment of the borrow area.

Task 2.2 Deliverable. Four (4) hard copies and one (1) electronic copy of a memo summarizing task results. Drawings delineating survey results (8 sets). AutoCAD files will be provided to the County

### **TASK 2.3      Coordination of Borrow Area Authorization with SHPO**

A cultural resources assessment based on the magnetometer survey of the borrow area will be prepared in accordance with standards established by the Florida Department of State, Division of Historical Resources, and applicable Federal standards and guidelines. This includes reviewing available information from the Florida Site File at the Florida Department of State, Division of Historical Resources, and other published sources of archeological and shipwreck information. Such review will be conducted in accordance with the provisions of the National Historic Preservation Act of 1966, as amended, as well as the provisions contained in Section 403.918(2)(a)6, Florida Statutes and the "Standards for Conducting, Reporting, and Reviewing Archeological and Historic Site Assessment Survey Activities" of the Florida Department of State, Division of Historical Resources. This review will be undertaken in advance of any fieldwork, with the purpose of determining potential impacts to prehistoric archaeological sites or historic shipwreck sites.

Scaled maps of the borrow area bathymetry and the magnetic anomalies detected within the limits of the survey will be plotted. In addition, an underwater archeological survey technical report will be prepared in accordance with the "Standards for Conducting, Reporting, and Reviewing Archaeological and Historic Site Assessment Survey Activities" of the Florida Department of State, Division of Historical Resources and applicable Federal standards and guidelines.

Task 2.3 Deliverable. Four (4) hard copies and one (1) electronic copy of a coordination letter to SHPO outlining results. Engineering drawings of borrow area (8 sets).

### **TASK 2.4      Borrow Area Easement**

Based on the final borrow area plan and site approval by DEP, ATM will prepare and submit the necessary easement drawings and descriptions to the FDEP which sufficiently describe the borrow area and will be signed and sealed by a professional surveyor.

Task 2.4 Deliverable. Eight (8) hard copies and one (1) electronic copy of Signed and Sealed Borrow Area Easement Drawing.

#### **TASK 2.5      Borrow Area QA/QC Plan**

A Quality Assurance / Quality Control Plan will be developed for the proposed borrow area. The plan will include a plan for monitoring of the existing and placed beach material. Minimum quality standards for the borrow material will also be included within the plan. Monitoring procedures and potential corrective measures to address quality issues will be delineated.

Task 2.5 Deliverable. Four (4) hard copies and one (1) electronic copy of the Borrow Area QA/QC Plan.

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### **TASK 3 – PROJECT PERMITTING**

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Permits for the initial nourishment were granted by both the FDEP and USACE. While one of these permits is currently active, they do not provide for a major renourishment project. ATM will initiate permitting of the renourishment project by developing the permitting package. ATM will also respond to Requests for Additional Information (RAI) regarding the project.

#### **TASK 3.1      JCP Permit Application**

ATM will prepare and submit a Joint Coastal Permit (JCP) application for the subject project. This product will incorporate the results from the engineering, geotechnical and environmental tasks conducted in support of this project. The package will include sufficient descriptive text to adequately describe the proposed project as well as potential impacts from the project. A set of permit drawings will be included within the submission. A sediment QA/QC plan will be developed as part of the JCP permit application.

Task 3.1 Deliverable. Three (3) hard copies and one (1) electronic copy of the JCP permit application to the DEP and one (1) hard copy and one (1) electronic copy to the County.

#### **TASK 3.2      Respond to FDEP Requests for Additional Information (RAI)**

ATM will review and provide responses to a total of two (2) Requests for Additional Information (RAI) from the FDEP. The responses will provide additional clarification or analysis as requested by the review agencies. Upon receiving an RAI, ATM will discuss the issues and points raised within the request with Palm Beach County and provide an acceptable response plan.

Task 3.2 Deliverable. Responses to two (2) RAI requests. One (1) electronic copy of each RAI response to the County.



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### **TASK 3.3      Respond to Federal Agency Comments**

ATM will review and provide responses to 2 sets of comments received from Federal Agencies regarding the permit application. Federal agencies that may provide comment include: USACE, FWS, NMFS and the EPA. Upon receiving comments from any Federal Agency, ATM will discuss the issues and points raised within the comments with Palm Beach County and propose an acceptable response plan.

Task 3.3 Deliverable. Correspondence with Federal Agencies. Meeting notes and agendas.

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### **TASK 4 – MEETINGS & CONSULTATION**

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ATM staff will attend coordinating and planning meetings regarding the project.

ATM will participate in a maximum of three (3) progress meetings in Tallahassee with FDEP staff and four (4) local meetings with PBC (or other) staff. Two (2) ATM staff will be in attendance at the Tallahassee meetings. One of these meetings will be a Pre-Application meeting for the project. ATM will provide limited preparation for progress meetings including preparation of meeting agendas and presentation materials where appropriate.

Task 4.0 Deliverable. Meeting notes and agendas. Pertinent correspondence.

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### **TASK 5 – NEARSHORE HARDBOTTOM ASSESSMENT**

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A pre-construction evaluation of adjacent hardbottom was conducted by CSA, Inc. and will be summarized within the JCP application. Additional monitoring of existing conditions on exposed hardbottom will be performed by CSA, Inc. This proposal is in development and will be forwarded to FDEP for review when complete.

An initial assessment of nearshore hardbottom quality down-drift of the project will be conducted. This assessment will rely heavily on the procedures developed within the 'Ocean Ridge Segment – Comprehensive Monitoring Plan (Nov. 2005)'. It is anticipated that eight (8) cross shore transects will be identified for assessment of nearshore hardbottom with a combination of video and transect methods as described in the attached SOW work for Continental Shelf Assoc., Inc, which will be conducted as a subconsultant to this proposal.

Task 5.0 Deliverable. Four (4) hard copies and one (1) electronic copy of a report summarizing nearshore hardbottom assessment.

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**FUTURE PROJECT TASKS**

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This proposal addresses project needs through the final design and permitting initiation phases of this project. The following tasks are not included within this scope but will be required for successful completion of this project.

Preparation of Plans and Specifications, and Construction Services and Administration. These tasks will be required to complete project construction but are dependent on a successful resolution of the permitting process. Given the uncertainties associated with project permitting these tasks are not included within this proposal and are considered as an element of required future tasks for this project.

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**PROFESSIONAL FEE ESTIMATE SUMMARY (LUMP SUM)**

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Task	Scope Element	Estimated Professional Fee
1	Engineering Review and Design	\$50,801
2	Borrow Area Delineation	\$56,646
3	Project Permitting	\$48,921
4	Meetings and Consultation	\$18,839
5	Nearshore Hardbottom Assessment	\$36,054

**Juno Beach Renourishment**

Estimated Fees  
11/6/2006

	TASK DESCRIPTION	ATM Team Leader	ATM Coastal Engineer	Staff Eng.	ATM Eng. Tech.	ATM Senior Scientist	ATM CADD Designer	ATM Clerical	ATM Surveyor	ATM Senior Scientist (SCUBA Rate)	ATM Total Labor	Sub Fee	ATM Management Fee on Sub	ATM Rental Fees (1) - see detail breakdown	ATM Other Direct Costs (ODC's) (2) - see detail	Total Task Budget
	Contract Labor Rates - 2006	\$132.75	\$92.68	\$75.87	\$59.75	\$114.00	\$62.47	\$60.14	\$94.31	\$141.50						
1	ENGINEERING REVIEW AND DESIGN															
1.1	Performance Evaluation	12	48	80	120		140	40	40		\$34,205.04				\$305	\$34,510.04
1.2	Final Beach Fill Design	12	20	60	40		80		8		\$16,140.88				\$150	\$16,290.88
2	BORROW AREA DELINEATION															
2.1	Borrow Area Design	12	16	40	80		40	8	40		\$17,643.00	\$9,990			\$50	\$27,683.00
2.2	Magnetometer Survey	4	12	20	20		20		20		\$7,491.16	\$5,764	\$288.20	\$1,750.00		\$15,293.36
2.3	SHPO Coordination	2	12	8	2		12	4	12		\$4,226.04	\$3,000	\$150.00			\$7,376.04
2.4	Execute Borrow Area Easement	2	4	2	2		8	2	12		\$2,659.22				\$45	\$2,704.22
2.5	Borrow Area QA/QC Plan	1	4	4	8		8	30			\$3,588.91					\$3,588.91
3	PROJECT PERMITTING															
3.1	JCP Application	12	20	24	48		40	20	8		\$12,591.56				\$415	\$13,006.56
3.2	RAI Responses (2)	12	20	24	48		20	20	8		\$11,342.16	\$8,100	\$405.00			\$19,847.16
3.3	Respond to Federal Agencies	12	20	24	48		20	20	8		\$11,342.16	\$4,500	\$225.00			\$16,067.16
4	MEETINGS AND CONSULTATION	40	48	24	8		12	2			\$12,927.44	\$2,830	\$141.50		\$2,940	\$18,838.94
5	HARDBOTTOM INITIAL ASSESSMENT	2						4	4		\$883.30	\$35,171				\$36,054.30
	TOTAL COSTS										\$135,040.87	\$69,355.00	\$1,209.70	\$1,750.00	\$3,905.00	\$211,260.57
	M/WBE Participation											\$25,420				
	M/WBE Participation (% of total)											12.03%				

**ATM Rental Fees**

	Daily Rate	Days	Cost
1			
25' Parker Boat	\$800	2	\$1,600
SCUBA Gear	\$100	0	\$0
Underwater Still Camera and Strobe	\$75	0	\$0
Survey Vehicle	\$75	2	\$150
Turbidity Meter/YSI meter	\$50	0	\$0
Tide Gauge	\$100	0	\$0

**Sub-Total**

**\$1,750**

**ATM Other Direct Costs**

	Cost	Quantity	Cost
2			
Photocopies (8.5 x 11)	\$0.12	1050	\$126
Color Copies	\$0.75	225	\$169
Standard Paper Plots	\$1.00	600	\$600
Heavy Duty Plots	\$1.00	40	\$40
Travel -			
Air (to Tallahassee)	\$425.00	6	\$2,550
Car	\$60.00	3	\$180
Meals	\$40.00	6	\$240

**Sub-Total**

**\$3,905**

**Subconsultants**

1. Geotechnical Consultation (SEA, Inc.) (Task 2.1)
2. Magnetometer/ Side Scan Subcontractor (Sonographics) (Task 2.2)
3. Marine Archeology Subcontractor (B. Baer) (Task 2.3)
4. Permitting Hardbottom Consultation (Coastal-Eco Group) (Task 3.2,3.3)
5. Hardbottom Initial Assessment (Continental Shelf Associates) (Task 5.0)

### Juno Beach Project Schedule

ID	Task Name	Duration	Start	Finish	January	February	March	April	May	June	July
1	<b>1. ENGINEERING REVIEW &amp; DESIGN</b>	0 days	Tue 1/2/07	Tue 1/2/07							
2	1.1 Performance Evaluation	64 days	Tue 1/2/07	Fri 3/30/07							
3	1.2 Final Beach Fill Design	64 days	Tue 1/2/07	Fri 3/30/07							
4	<b>2. BORROW AREA DELINEATION</b>	64 days	Tue 1/2/07	Fri 3/30/07							
5	2.1 Borrow Area Design	64 days	Tue 1/2/07	Fri 3/30/07							
6	2.2 Magnetometer Survey	21 days	Thu 2/1/07	Thu 3/1/07							
7	2.3 SHPO Coordination	63 days	Mon 4/2/07	Wed 6/27/07							
8	2.4 Execute Borrow Area Easement	44 days	Tue 5/1/07	Fri 6/29/07							
9	2.5 Borrow Area QA/QC Plan	56 days	Thu 3/15/07	Thu 5/31/07							
10	<b>3. PROJECT PERMITTING</b>	0 days	Tue 1/2/07	Tue 1/2/07							
11	3.1 JCP Application	64 days	Tue 1/2/07	Fri 3/30/07							
12	3.2 RAI Responses (2)	0 days	Tue 1/2/07	Tue 1/2/07							
13	DEP review JCP	22 days	Fri 3/30/07	Mon 4/30/07							
14	Respond to RAI (1)	23 days	Tue 5/1/07	Thu 5/31/07							
15	DEP Review - Response to RAI	22 days	Thu 5/31/07	Fri 6/29/07							
16	Response to RAI (2)	22 days	Fri 6/29/07	Mon 7/30/07							
17	3.3 Respond to Federal Agencies	87 days	Fri 3/30/07	Mon 7/30/07							
18	<b>5. HARDBOTTOM INITIAL ASSESSMENT</b>	21 days	Thu 2/1/07	Thu 3/1/07							

***Scientific Environmental Applications, Inc. (SEA)***

*5575 Willoughby Dr.*

*Melbourne, FL 32934*

*email SEAPP1@aol.com*

*Telephone/fax 321.254.2708*

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November 16, 2006

Peter Seidle, P.E.

Coastal Engineer

Applied Technology and Management, Inc.

400 S. Australian Blvd., Ste. 855

West Palm Beach, FL 33401

Dear Mr. Seidle:

Scientific Environmental Applications (SEA) agrees to perform the following services in support of Applied Technology and Management, Inc.'s coastal engineering Juno Beach project with Palm Beach County.

- Provide exhibits based on previously collected geotechnical data for project review
- Provide additional analysis of geotechnical data as directed by ATM or Palm Beach County

Attached is a proposal for a lump sum of \$9,990.00 for the S.E.A. subcontract with ATM for a Palm Beach County Services agreement updated 9/06. If you need any further information, I may be reached by cell phone 321.794.3398.

Thank You,



Ms. Kim Zarillo  
President

Attachment 1 9/1/2006 Proposed Budget SEA Subcontract for ATM - Palm Beach  
County Services

SEA Subcontract Budget for 2006 ATM -  
Palm Beach County Services

Item		Unit cost	Estimated # of Samples = 55
Samples			
GSD		\$44.00	\$2,420.00
Color		\$10.00	\$550.00
Fine %		\$12.00	\$660.00
Organic %		\$12.00	\$660.00
Carbonate %		\$12.00	\$660.00
Hydrometer		\$100.00	0
Subtotal			\$4,950.00
Item	Hours	GAZ PG\$90/hour	
Additional Geotechnical Analysis			
Geotechnical exhibits in ArcView shape files	26	\$2,340.00	
Project support and SideScan Data Analysis Task 2.2	30	\$2,700.00	
Subtotal		\$5,040.00	

Total Budget for Samples and Additional Services \$9,990.00

# SONOGRAPHICS

*Remote Sensing Excellence*

August 14, 2006

Pete Seidle  
APPLIED TECHNOLOGY & MANAGEMENT, INC.  
400 Australian Ave. Suite 855  
West Palm Beach, FL 33401

Quotation for Juno Beach Cultural Resource Survey:

## SCHEDULE OF EQUIPMENT AND OPERATORS:

EdgeTech 4200-FS Dual Frequency Digital Side-Scan Sonar System  
Geometrics M-882 Digital Cesium Magnetometer with Depth Sensor and Altimeter  
Side-Scan Sonar and Magnetometer Equipment Operator/Technician

## SCHEDULE OF DELIVERABLES:

- 1) Post Analysis and mapping of Side-Scan data as required.
- 2) Post Analysis and mapping of Magnetometer data as required.

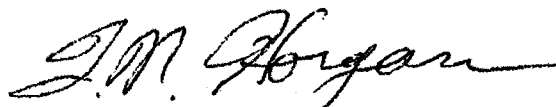
## SCHEDULE OF COSTS:

Equipment Preparation Magnetometer:	\$287.00	\$287.00
Equipment Preparation Side-scan Sonar:	\$227.00	\$227.00
Survey Op. days (2) Operator/Tech:	\$900.00	\$1,800.00
Survey Op. days (2) Side-scan Sonar	\$700.00	\$1,400.00
Survey Op. days (2) Magnetometer:	\$275.00	\$550.00
Post Processing Side-scan data: 10hrs (rate \$75)	\$750.00	\$750.00
Post Processing Magnetometer data: 10hrs	\$750.00	\$750.00

Lump Sum Total for (2 days) Mobilization and Demobilization, Survey of approximately 17 line miles, Post Analysis and mapping of all data: \$5,764.00

The above quotations include per diem expenses, transit, freight and expendables.

Sincerely,



F. N. "Rick" Horgan  
SONOGRAPHICS, INC.

Robert H. Baer, DPA, MSt  
Registered Professional Archaeologist  
9713 N. New River Canal Road  
Plantation, Florida 33324  
(954) 472 - 8857  
Cell # (954) 560 - 6417

To: Mr. Mike Jenkins  
Applied Technology & Management Inc.

From: Robert H. Baer  
Registered Professional Archaeologist

March 18, 2006

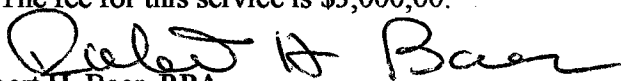
Subject: Proposal, Juno Beach Remote Sensing Project

Per our telephone conversation of March 16, 2006 please be advised that Robert Baer, RPA, will perform the following professional services pursuant to the completion of the Juno Beach Remote Sensing Survey:

(1) Preparation and Completion of Submerged Cultural Resource Assessment to include:

- (A) Archival research.
- (B) Coordination of Field Investigation with Mr. Rick Horgan,
- (C) Analysis of Side Scan Sonar and Magnetometer Survey Data.
- (D) Report Writing.
- (E) Submission of Final Report to State Historic Preservation Office (SHPO).
- (F) Continued Professional Support as Required.

(2) The fee for this service is \$3,000.00.

  
Robert H. Baer, RPA  
(954) 472 - 8857  
Cell # (954) 560 - 6417



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## **Coastal Eco-Group, Inc.**

808 East Las Olas Blvd., Suite 101  
Fort Lauderdale, FL 33301

Tel: (954)591-1219 Fax: (954)358-2441  
Email: [cmiller@coastaleco-group.com](mailto:cmiller@coastaleco-group.com)

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### **Juno Beach Nourishment Project - Environmental Permitting Support Proposal**

At the request of the CONSULTANT, Applied Technology & Management, Inc. (ATM), Coastal Eco-Group, Inc. will provide environmental permitting assistance and support during preparation and regulatory agency review of the USACE and FDEP permit applications and agency requests for additional information (RAIs) for the proposed Juno Beach Nourishment Project. These support services include preparation and review of natural resource assessments and biological community characterizations required in the permit application to describe the current condition of existing resources (hardbottom communities, submerged aquatic vegetation, and listed species, including nesting and foraging habitat for sea turtles and shorebirds); evaluation and avoidance/minimization of project-related impacts (direct, secondary, and cumulative) resulting from borrow area excavation, beach fill placement, equilibration, and turbidity/sedimentation associated with a mixing zone variance; biological monitoring program development for the assessment of project-related impacts to nearshore hardbottom communities and essential fish habitat; and, if required, mitigation plan development for compensation for unavoidable project-related impacts to hardbottom communities and listed species.

Identification of the borrow area(s) for the proposed nourishment project involves evaluation of potential hardbottom communities and submerged aquatic vegetation (offshore *Halophila decipiens* beds) in the vicinity of the borrow areas. During post-construction inspections of recent beach nourishment projects along the southeast Florida coast, Department staff have observed sediment accumulation on reef communities that were protected by a buffer distances of 400 feet from the borrow area boundary, resulting in the potential for increased buffer distances dependent upon sediment quality and adjacent benthic community composition and diversity. Coastal Eco-Group Inc. will advise and assist ATM with the identification and development of appropriate buffer zones to adjacent benthic communities and ingress/egress corridors for dredge equipment to avoid or minimize impacts to adjacent natural resources.

The nearshore hardbottom mitigation requirements of the Juno Beach Restoration Project (FDEP Permit No. 0127642-001-JC) may not have been satisfied. If needed, Coastal Eco-Group Inc. will provide technical expertise and assistance to ATM in the evaluation of compensatory mitigation requirements to address any potential non-compliance issues with previous permit conditions.

All work will be performed by Ms. Cheryl Miller, President and Principal Scientist, of Coastal Eco-Group, Inc., at an hourly rate of \$90. A total of 90 hours is proposed for environmental permitting support during preparation of the Joint Coastal Permit Application and responses to requests for additional information by the Florida Department of Environmental Protection. Deliverables shall include responses to Items 29, 35, and 37 in the Joint Coastal Permit Application and Responses to Request for Additional Information, including coordination and preparation of a nearshore hardbottom monitoring plan which satisfies current Department approved methodology and permit requirements, and evaluation and assistance with any outstanding compensatory mitigation requirements. The total cost for these services is \$8100.

A total of 50 hours is proposed for environmental permitting support during the Federal regulatory and resource protection agency review of the permit application and requests for additional information. Ms. Miller will assist in the preparation of responses to comments and requests for additional information by the National Marine Fisheries Services, United States Fish and Wildlife Service, and Environmental Protection Agency. The total cost for these services is \$4500.

At the request of the Applied Technology and Management Inc., Ms. Miller will attend meetings with State regulatory and resource protection agencies during the permit application review process. Meeting attendance will include preparation of visual aids (e.g. PowerPoint presentation) and any hand-outs required for the presentation of findings. A total of 20 hours is proposed for meeting preparation, attendance and travel for a labor cost of \$1,800, plus an additional travel cost of \$1,030 for two trips between West Palm Beach and Tallahassee (2 round-trip airfare: \$850; 2 day auto rentals: \$120; 2 meals per diem: \$60). The total costs for these services is \$2,830.

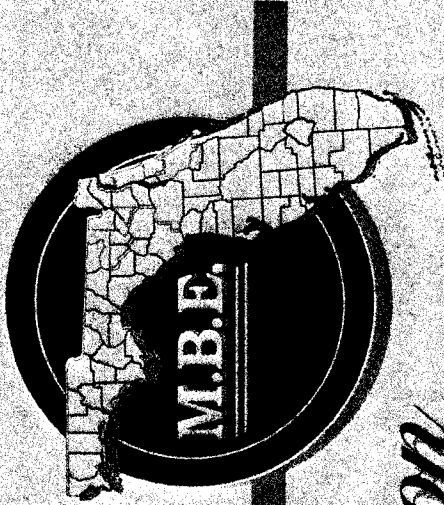
The project is a Lump Sum project in the amount of \$15,430.

*Cheryl L. Miller*

Cheryl L. Miller  
President, Principal Scientist  
Coastal Eco-Group Inc.

*Florida Statewide*

*Inter-Local Certification*



Florida Department of Management Services  
Office of Supplier Diversity

Coastal Eco-Group Inc.

is certified as a **Minority Business Enterprise**  
under the provisions of Chapter 287, Florida Statutes and Inter-Local Agreement,  
for a one year period from March 13, 2006 to March 13, 2007.

  
Director



Continental Shelf Associates, Inc.

759 Parkway Street  
Jupiter, Florida 33477

[www.conshelf.com](http://www.conshelf.com)

Phone: 561-746-7946  
Fax: 561-747-2954

9 October 2006

Mr. Peter Seidle  
Applied Technology and Management  
400 South Australian, Suite 400  
West Palm Beach, Florida 33401-5045

Dear Peter,

CSA is pleased to provide you with the following proposal to conduct Nearshore Hardbottom Community Monitoring offshore Juno Beach, Florida. We have reviewed and addressed the County's most recent comments in regard to the Juno Beach proposal submitted in August 2006 and are providing the attached revised Scope of Work for the Juno Beach Nearshore Hardbottom Community Monitoring dated 3 October 2006 and revised cost proposal.

We appreciate your business and look forward to working on this project and others in the future.

Best regards,

Keith D. Spring  
Senior Scientist

Frederick B. Ayer II  
Vice President

## **Juno Beach Nearshore Hardbottom Community Monitoring**

**3 October 2006**

The following scope of work is based upon a review of the Ocean Ridge Segment - Comprehensive Monitoring Plan (November 2005). The proposed monitoring program will include physical and biological components to document the natural reef structure prior to beach renourishment activities.

### **Task 1: Nearshore Hardbottom Monitoring Survey**

Nearshore hardbottom communities will be monitored along up to eight transects off DEP monuments within hardbottom areas within the project area and in an adjacent reference area. Up to six transects will be within the project area and two transects will be positioned across the reference area. The transects will begin at the inner edge of exposed hardbottom and will extend to the east to the outer edge of hardbottom or a maximum of 150 m. Based upon mapping data received by CSA the nearshore exposed hardbottom in these areas is up to approximately 80 m in width (east-west). A weighted lead-core line marked at 1-m intervals will be deployed along each transect prior to data collection. Divers will collect video data along each transect using a DVS camera and housing. The videocamera will be set in progressive-scan mode and will be held perpendicular to the bottom at a height of 40 cm while swimming the transects. The divers will swim the transects at speeds of about 4 to 5 m per min to obtain high resolution footage of the attached benthic communities. A DGPS unit will be towed by the dive team and the beginning point, ending point, and all intermediate points on the transect will be recorded/logged.

Ten quadrats (0.5 m x 0.5 m) will be placed at regular intervals within hardbottom areas along the inner 50 m of each transect. The quadrats will be numbered/labelled with a discrete identification number and video data will be collected of the biota within each quadrat. Each quadrat location will be recorded using the diver towed DGPS unit. Benthic organisms within each quadrat will be identified to the lowest possible taxonomic level and recorded and any stony corals within a quadrat will be identified and measured along two axes. Additionally, the sediment thickness above rock will be measured at 10 random points within each quadrat.

Any sightings of juvenile green turtles during the monitoring survey will be recorded. Information recorded will include transect/location, approximate water depth, and estimated size.

### **Task 2: Analysis and Report**

Video data will be reviewed following the survey to provide descriptions and quantifications of the benthic cover along each transect. Each species appearing in the video data shall be identified to the lowest possible taxonomic level. Each will also be assigned to a category of relative abundance using the following scale:

- 
- 1 = a single individual or less than 1% cover
  - 2 = 2 to 10 individuals or 1 - 20% cover
  - 3 = 11 to 100 individuals or 20 - 50% cover
  - 4 = Over 100 individuals or over 50% cover

Organisms assessed as individuals will include corals, tunicates, or non-encrusting sponges. Organisms assessed as % cover include algae, encrusting sponges, hydroids, worm rock, or other colonial organisms.

Following completion of the field survey, CSA will submit a final report describing the field methods and survey results. Results will be compared to data collected for the nearshore mitigation reefs in the vicinity of the project area as well as any other available data from similar nearby locations. All raw data products will be available from the contractor for future review and analyses.

CONTINENTAL SHELF ASSOCIATES, INC.					
PROPRIETARY COST DATA					
ATM					
Juno Beach					
28 Sept 2006 KS Revision					
Escalation Year Applied		05-06	05-06	05-06	
Task Multiplier:		1	3	1	
Task #		Task 1	Task 2	Task 3	TOTAL
		Mob/ Demob	Field HB-Reef	HB-Reef Ana-Rpt	HOURS
LABOR SUMMARY					
F. Ayer	Pm	2	-	-	2
D. Gettleson	Pm	2	-	-	2
A. Hart	SS	-	-	8	8
K. Spring	SS	14	-	32	46
F. Johnson	OM	-	-	-	-
L. Powell	OM	6	-	24	30
R. Cady	STS	-	36	-	36
V. Cornett	STS	-	36	60	96
T. Stevens	LTch	2	36	-	38
T. Shaw	Tch	-	36	-	36
A. Segreto	TA	10	-	-	10
Technical Assistant	TA	-	-	-	-
M. Powell	Ted	-	-	16	16
Word Process	WP	-	-	16	16
Graphics	GI	-	-	8	8
TOTAL HOURS		36	144	164	344
Task #		Task 1	Task 2	Task 3	
Task Name		Mob/ Demob	Field HB-Reef	HB-Reef Ana-Rpt	TOTAL
CSA TOTAL RATE BASIS					
PURCHASED PARTS	EL-1a	-	606	-	606
SUBCONTRACTED ITEMS	EL-1b	-	-	-	-
DIRECT LABOR	EL-3	4,361	10,006	16,046	31,403
CSA FIELD EQUIPMENT	EL-6	-	3,162	-	3,162
TRANSPORTATION	EL-7a	-	-	-	-
SUBSISTENCE	EL-7b	-	-	-	-
CONSULTANTS	EL-8	-	-	-	-
OTHER DIRECT COSTS	EL-9	-	-	-	-
TOTAL COST AND FEE	EL-15	4,361	14,764	16,046	35,171

3) DIRECT LABOR	Task 1	Mob/ Demob									TOTAL	TOTAL	TOTAL
PERSONNEL	CAT	Mgt	Mob	Fld	Fld	Fld	Dmb	Anl	Rpt-D	Rpt-F	HOURS	RATE	PRICE
F. Ayer	Pm	2	-	-	-	-	-	-	-	-	2	180.04	360
D. Gettleson	Pm	2	-	-	-	-	-	-	-	-	2	104.00	300
A. Hart	SS	-	-	-	-	-	-	-	-	-	-	180.04	-
K. Spring	SS	12	2	-	-	-	-	-	-	-	14	147.32	2,062
F. Johnson	OM	-	-	-	-	-	-	-	-	-	-	128.22	-
L. Powell	OM	4	2	-	-	-	-	-	-	-	6	138.00	829
R. Cady	STS	-	-	-	-	-	-	-	-	-	-	78.00	-
V. Cornett	STS	-	-	-	-	-	-	-	-	-	-	50.92	-
T. Stevens	LTch	-	2	-	-	-	-	-	-	-	2	89.61	179
T. Shaw	Tch	-	-	-	-	-	-	-	-	-	-	77.90	-
A. Segreto	TA	-	6	-	-	-	4	-	-	-	10	54.03	540
Technical Assis	TA	-	-	-	-	-	-	-	-	-	-	51.07	-
M. Powell	Ted	-	-	-	-	-	-	-	-	-	-	87.36	-
Word Process	WP	-	-	-	-	-	-	-	-	-	-	57.60	-
Graphics	GI	-	-	-	-	-	-	-	-	-	-	82.87	-
TOTAL EL. 3:		20	12	-	-	-	4	-	-	-	36		4,361

[illegible]



**Applied Technology & Management**  
**Continuing Contract for Coastal and Marine Engineering**

Contract R2006-0688 dated April 18, 2006 for period of two years expires on April 17, 2008.

SBE-MBE Goal 20.0% (10% SBE/W; 10% MBE/W)

Task order summary:

TASK NUMBER	TOTAL/ SBE and/or MWBE AMOUNT	TASK DUE DATE	TASK DESCRIPTION	APPROVED BY/DATE
0688-01	62,897.60 0.00	11/30/06	Lake Worth Lagoon Seagrass Mapping	CRC 5/31/06
0688-01A	637.38 0.00	11/30/06	Lake Worth Lagoon Seagrass Mapping	ERM 7/27/06
0688-02	211,260.57 25,420.00	8/3/07	Juno Beach Renourishment - Engineering and Permitting Services	BCC

Total: 274,795.55

SBE-MBE: 25,420.00

SBE-MBE Participation: 9.3%

Report Date & Filename: 11/22/06

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R2006-0688 *Attachment 2*

**CONTRACT FOR PROFESSIONAL CONSULTANT SERVICES  
BETWEEN PALM BEACH COUNTY AND  
APPLIED TECHNOLOGY AND MANAGEMENT, INC.**

**APR 10 2006**

This is a Contract made as of \_\_\_\_\_, by and between Palm Beach County, a Political Subdivision of the State of Florida, by and through its Board of County Commissioners, hereinafter referred to as the COUNTY, and Applied Technology and Management, Inc., 400 Australian Avenue, Suite 855, West Palm Beach, FL, 33401, an engineering firm, a corporation, authorized to do business in the State of Florida, hereinafter referred to as the CONSULTANT, whose Federal I.D. Number is 59-2413268.

In consideration of the mutual promises contained herein, the COUNTY and the CONSULTANT agree as follows:

**ARTICLE 1 - SERVICES**

The CONSULTANT's responsibility under this Contract is to perform professional coastal and marine engineering services and incidental services as more specifically set forth in the Scope of Work attached hereto as Exhibit "A". In the event services are required to be performed that are not described in Exhibit "A", but are within the general scope of services, the COUNTY and the CONSULTANT hereby reserve the right to negotiate task orders covering the desired services.

The CONSULTANT shall conduct professional services in accordance with Chapters 471 and 472, Florida Statutes and other applicable local, state and federal standards. The CONSULTANT shall conduct topographic and hydrographic survey work in compliance with the U.S. Army Corps of Engineers "Technical Requirements for Surveying, Mapping and Photogrammetric Services," Revised March 1989 and the U.S. Army Corps of Engineers "Engineering Design: Hydrographic Surveying," EM 1110-2-1003, January 1, 2001, and the most current Florida Department of Environmental Protection specifications for topographic (section 02000) and bathymetric (section 02100) surveying.

**ARTICLE 2 - PERIODS OF SERVICE AND SCHEDULES**

This Contract commences on the day and year first written above and ends two years later. At the option of the COUNTY, the Contract can be renewed for an additional one-year period.

Reports and other work items shall be delivered or completed according to schedules established in each task order.

**ARTICLE 3 - ASSIGNMENT OF WORK**

The CONSULTANT shall provide professional services on a task order basis. A copy of the Task Order form and Task Change Order form are attached hereto as Exhibit "C" and Exhibit "D". The COUNTY reserves the right to modify these forms during the term of the Contract.

**ARTICLE 32 - CRIMINAL HISTORY RECORDS CHECK**

The CONSULTANT shall comply with the provisions of Ordinance 2003-030, the Criminal History Records Check Ordinance ("Ordinance"), if CONSULTANT's employees or subcontractors are required under this contract to enter a "critical facility" as identified in Resolution R-2003-1274. The CONSULTANT acknowledges and agrees that all employees and subcontractors who are to enter a "critical facility" will be subject to a fingerprint based criminal history records check. Although COUNTY agrees to pay for all applicable FDLE/FBI fees required for criminal history record checks, the CONSULTANT shall be solely responsible for the financial, schedule, and staffing implications associated in complying with Ordinance 2003-030.

IN WITNESS WHEREOF, the Board of County Commissioners of Palm Beach County, Florida has made and executed this Contract on behalf of the COUNTY and CONSULTANT has hereunto set its hand the day and year above written.

**ATTEST:**

Sharon R. Bock, Clerk & Comptroller

By:   
Deputy Clerk

**WITNESS:**

  
Signature

Judy H. Oyler

Name (type or print)

**APPROVED AS TO FORM  
AND LEGAL SUFFICIENCY:**

By:   
Assistant County Attorney

**APPROVED AS TO TERMS  
AND CONDITIONS:**

By:   
Richard E. Walesky, Director  
Dept. of Environmental Resources Mgmt.

**R2006 0688**

**PALM BEACH COUNTY** **APR 18 2006**  
**BOARD OF COUNTY COMMISSIONERS:**

By:   
Tony Masiotti, Chairman

**CONSULTANT:**

Applied Technology & Management, Inc.

Company Name

By:   
Signature

Michael Jenkins, Ph.D., P.E.

Name (type or print)

Coastal Engineering Team Leader

Title

(corp. seal)

**EXHIBIT B**  
**APPLIED TECHNOLOGY AND MANAGEMENT, INC.**  
**2006 WAGE AND EQUIPMENT RATES**

**WAGE RATES**

<b>EMPLOYEE CLASS</b>	<b>HOURLY WAGE RATE (AVG)</b>	<b>BILLABLE RATES (X 2.85)</b>
Senior Vice President	\$63.61	\$181.29
Coastal Team Leader	\$46.58	\$132.75
Senior Coastal Engineer	\$45.00	\$128.25
Coastal Specialist	\$38.00	\$108.30
Coastal Engineer	\$32.52	\$92.68
Staff Engineer	\$26.62	\$75.87
Senior Scientist	\$60.00	\$114.00
Senior Scientist (SCUBA rate)	\$120.00	\$141.50
Junior Engineer / Engineering Tech.	\$20.96	\$59.75
Professional Surveyor & Mapper	\$33.09	\$94.31
CAD/GIS	\$21.92	\$62.47
Clerical	\$21.10	\$60.14
Professional Geologist	\$35.77	\$101.94

**EQUIPMENT RATES**

<b>EQUIPMENT TYPE</b>	<b>RATE</b>	<b>RATE UNIT</b>
ATM Survey Vessel w/DGPS <sup>1</sup>	\$800	DAY
Johnboat (w/40 HP)	\$200	DAY
RTK GPS	\$450	DAY
Trimble Pro-XR	\$125	DAY
Survey Vehicle	\$100	DAY
Tide Gauge	\$100	DAY
Turbidity Meter	\$50	DAY
Underwater Still Camera w/Strobe	\$75	DAY
SCUBA Gear	\$100	DAY
Photocopies (8.5 x 11)	\$0.12	COPY
Color Copies	\$0.75	COPY
Standard Paper Plots (24 x 36)	\$1.00	COPY
Heavy Duty Plots	\$7.50	COPY

1. Survey Vessel Rate includes Hypack and Fathometer Systems