

**PALM BEACH COUNTY  
BOARD OF COUNTY COMMISSIONERS**

**AGENDA ITEM SUMMARY**

**Meeting Date:** May 5, 2020 (X) Consent ( ) Regular  
( ) Workshop ( ) Public Hearing

**Department:** Environmental Resources Management

**I. EXECUTIVE BRIEF**

**Motion and Title:** **Staff recommends motion to approve:** Task Order No. 1543-04 to a continuing Contract (R2019-1543) with Olsen Associates, Inc. (Olsen) (Contract) in the amount of \$244,493 to provide professional engineering services for the FY2021 renourishment of the North County Comprehensive Shore Protection Project Segment I (Jupiter Carlin) (Project).

**Summary:** The Board of County Commissioners approved the Consultants' Competitive Negotiation Act (CCNA) Contract with Olsen, a Jacksonville company, on October 8, 2019 (R2019-1543). Task Order No. 1543-04 authorizes Olsen to conduct pre-construction design, contracting support, and post-construction services for the Project. Costs will be funded by the Beach Improvement Fund through Tourist Development Council bed tax revenues. Office of Equal Business Opportunity's Goal Setting Committee set a 20% minimum mandatory Small Business Enterprise (SBE) subcontracting goal as the Affirmative Procurement Initiative for the Contract. Olsen has agreed to 24% SBE participation. The SBE participation for this Task Order is 4.2%. District 1 (YBH)

**Background and Justification:** The Project was initially constructed in 1995 and renourished in 2002, 2014 and most recently in 2019, to repair erosion from Hurricane Irma as part of the Flood Control and Coastal Emergencies Program. The FY2021 renourishment is planned for Winter 2020/2021 and will complete the filling of the permitted template. Task Order 1543-04 will assist with creation of construction plans, technical specifications, bid documents, evaluation of bids, construction compliance with the Contract, and permit required physical monitoring and reporting. The scope of work has a small amount of hydrographic surveying as the only opportunity for SBE Sub-consulting participation. Future task orders authorized under Olsen's Contract will provide for greater SBE participation.

**Attachment:**  
1. Task Order No. 1543-04

**Recommended by:** YBH *Deborah Brun* 3-13-20  
**Department Director** **Date**

**Approved by:** *Nancy L. Bolton* 4/2/20  
**Assistant County Administrator** **Date**

**II. FISCAL IMPACT ANALYSIS**

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

<b>Fiscal Years</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
<b>Capital Expenditures</b>	_____	<u>\$244,493</u>	_____	_____	_____
<b>Operating Costs</b>	_____	_____	_____	_____	_____
<b>External Revenues</b>	_____	_____	_____	_____	_____
<b>Program Income (County)</b>	_____	_____	_____	_____	_____
<b>In-Kind Match (County)</b>	_____	_____	_____	_____	_____
<b>NET FISCAL IMPACT</b>	_____	<u>\$244,493</u>	_____	_____	_____
<b># ADDITIONAL FTE POSITIONS (Cumulative)</b>	_____	_____	_____	_____	_____
<b>Is Item Included in Current Budget?</b>		Yes <u> X </u>		No _____	
<b>Does this item include the use of federal funds?</b>		Yes _____		No <u> X </u>	
<b>Budget Account No.:</b>	Fund <u>3652</u> Department <u>381</u> Unit <u>M045</u> Object <u>3120</u> Program _____				

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

Beach Improvement Fund

**C. Department Fiscal Review:**

*S. Neary*

**III. REVIEW COMMENTS**

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

*[Signature]* 3/24/2020  
OFMB 3/23/2020 (11/24)

*[Signature]* 3/25/2020  
Contract Development and Control  
3/25/2020 (TW)

**B. Legal Sufficiency:**

YBH *[Signature]* 3/30/2020  
Assistant County Attorney

**C. Other Department Review:**

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

ATTACHMENT 1

**TASK ORDER**

TASK ORDER: 1543-04 CONSULTANT: Olsen Associates, Inc.

ACCOUNT: 3652-381-M045-3120 E045-CIP-S037-CJUC-008 CONTRACT: R2019-1543

[Fiscal approval of Budget Availability: S. Neung 3/11/2020]

PROJECT MANAGER: Reubin Bishop PHONE: 561-233-2519

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

PROJECT NAME: North County Comprehensive Shore Protection Project – Segment I (Jupiter/Carlin)

LOCATION/DISTRICT #: Jupiter / District 1

TASK DESCRIPTION (use additional pages if necessary): The consultant shall provide professional engineering services for the planned renourishment of the project, as described in the attached proposal dated March 4, 2020.

DELIVERABLES: See scope of work.

TASK ORDER TYPE: FIXED PRICE DUE DATE: 8/31/2021

**TOTAL AMOUNT \$244,493.00**

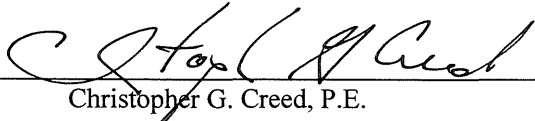
(Check where appropriate)

for Contract and Subcontract Amounts:

	Black	Hispanic	Women	Other (specify)	White Male
M/WBE (State) <input type="checkbox"/>	\$ _____	\$ _____	\$ _____	\$ _____	
SBE-M/WBE* <input type="checkbox"/>	\$ _____	\$ _____	\$ _____	\$ _____	
SBE <input checked="" type="checkbox"/>	\$ _____	\$ _____	\$ _____	\$ _____	\$10,480.00

\*certified as both an SBE and a State MBE

TOTAL SBE-M/WBE PARTICIPATION: \$10,480.00

CONSULTANT REP:  DATE: 3/5/2020  
Christopher G. Creed, P.E.

APPROVED AS TO TERMS AND CONDITIONS:

ERM DIRECTOR:  DATE: 3-13-20  
Deborah Drum

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

ASSISTANT COUNTY ATTORNEY: \_\_\_\_\_ DATE: \_\_\_\_\_

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

Dave Kerner, Mayor

**OEBO SCHEDULE 1**

LIST OF PROPOSED CONTRACTOR/CONSULTANT AND SUBCONTRACTOR/SUBCONSULTANT PARTICIPATION

SOLICITATION/PROJECT/BID NAME: NCC SPP Segment I (Jupiter/Carlin)  
 NAME OF PRIME RESPONDENT/BIDDER: Olsen Associates, Inc.  
 CONTACT PERSON: Steven Howard  
 SOLICITATION OPENING/SUBMITTAL DATE: \_\_\_\_\_

SOLICITATION/PROJECT/BID No.: Task Order No. 1543-04  
 ADDRESS: 2618 Herschel Street, Jacksonville, FL 32204  
 PHONE NO.: 904-387-6114 E-MAIL: showard@olsen-ass  
 DEPARTMENT: Environmental Resources Management

PLEASE LIST THE DOLLAR AMOUNT OR PERCENTAGE OF WORK TO BE COMPLETED THE PRIME CONTRACTOR/CONSULTANT ON THIS PROJECT.  
 PLEASE ALSO LIST THE DOLLAR AMOUNT OR PERCENTAGE OF WORK TO BE COMPLETED BY ALL SUBCONTRACTORS /SUBCONSULTANTS  
 ON THE PROJECT.

Name, Address and Phone Number	(Check all Applicable Categories)			DOLLAR AMOUNT OR PERCENTAGE OF WORK				
	Non-SBE	M/WBE Minority/Women Business	SBE Small Business	Black	Hispanic	Women	Caucasian	Other (Please Specify)
1. Olsen Associates, Inc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	234,013.00	_____
2. Terraquatic, Inc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____	_____	_____	10,480.00	_____
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____
(Please use additional sheets if necessary)				Total	_____	_____	244,493.00	_____
Total Bid Price \$ <b>244,493.00</b>				Total SBE - M/WBE Participation		10,480.00		

- Note:**
- The amount listed on this form for a Subcontractor/subconsultant must be supported by price or percentage listed on the properly executed Schedule 2 or attached signed proposal.
  - Firms may be certified by Palm Beach County as an SBE and/or and M/WBE. If firms are certified as both an SBE and/or M/WBE, please indicate the dollar amount under the appropriate category.
  - Modification of this form is not permitted and will be rejected upon submittal.

**OEBO LETTER OF INTENT – SCHEDULE 2**

A completed Schedule 2 is a binding document between the Prime Contractor/consultant and a Subcontractor/subconsultant (for any tier) and should be treated as such. The Schedule 2 shall contain bolded language indicating that by signing the Schedule 2, both parties recognize this Schedule as a binding document. All subcontractors/subconsultants, including any tiered subcontractors/subconsultants, must properly execute this document. Each properly executed Schedule 2 must be submitted with the bid/proposal.

SOLICITATION/PROJECT NUMBER: Task Order No. 1543-04

SOLICITATION/PROJECT NAME: North County Comprehensive SPP - Segment I

Name of Prime: Olsen Associates, Inc.

**(Check box(s) that apply)**

SBE  WBE  MBE  M/WBE  Non-S/M/WBE Date of Palm Beach County Certification (if applicable): \_\_\_\_\_

The undersigned affirms they are the following (select one from each column):

**Column 1**

**Column 2**

Male  Female

African-American/Black  Asian American  Caucasian American

Hispanic American  Native American

**S/M/WBE PARTICIPATION** – S/M/WBE Primes must document all work to be performed by their own work force on this form. Failure to submit a properly executed Schedule 2 for any S/M/WBE participation may result in that participation not being counted. Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. S/M/WBE credit will only be given for the areas in which the S/M/WBE is certified. A detailed proposal may be attached to a properly executed Schedule 2.

Line Item	Item Description	Unit Price	Qty./Units	Contingencies/ Allowances	Total Price/Percentage
	Professional engineering services				\$244,493.00

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$244,493.00

**If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.**

Terraquatic, Inc. Price or Percentage: \$10,480.00  
 Name of 2<sup>nd</sup>/3<sup>rd</sup> tier Subcontractor/subconsultant

Olsen Associates, Inc.

Print name of Prime

By:   
 Authorized Signature

CHRISTOPHER G. CREED, P.E.  
 Print name

VICE PRESIDENT  
 Title

Title

Date: 3/5/2020

Print name of Subcontractor/subconsultant

By: \_\_\_\_\_  
 Authorized Signature

Print name

Title

Date: \_\_\_\_\_

**OEBO LETTER OF INTENT – SCHEDULE 2**

A completed Schedule 2 is a binding document between the Prime Contractor/consultant and a Subcontractor/subconsultant (for any tier) and should be treated as such. The Schedule 2 shall contain bolded language indicating that by signing the Schedule 2, both parties recognize this Schedule as a binding document. All subcontractors/subconsultants, including any tiered subcontractors/subconsultants, must properly execute this document. Each properly executed Schedule 2 must be submitted with the bid/proposal.

SOLICITATION/PROJECT NUMBER: Task Order No. 1543-04  
 SOLICITATION/PROJECT NAME: North County Comprehensive SPP - Segment I

Name of Prime: Olsen Associates, Inc.

**(Check box(s) that apply)**

SBE  WBE  MBE  M/WBE  Non-S/M/WBE Date of Palm Beach County Certification (if applicable): 4/28/2017

The undersigned affirms they are the following (select one from each column):

**Column 1**

**Column 2**

Male  Female  African-American/Black  Asian American  Caucasian American  
 Hispanic American  Native American

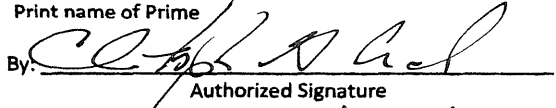
**S/M/WBE PARTICIPATION** – S/M/WBE Primes must document all work to be performed by their own work force on this form. Failure to submit a properly executed Schedule 2 for any S/M/WBE participation may result in that participation not being counted. Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. S/M/WBE credit will only be given for the areas in which the S/M/WBE is certified. A detailed proposal may be attached to a properly executed Schedule 2.

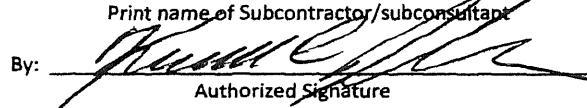
Line Item	Item Description	Unit Price	Qty./Units	Contingencies/ Allowances	Total Price/Percentage
	Professional surveying and mapping				\$10,480.00

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$10,480.00

**If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.**

Name of 2<sup>nd</sup>/3<sup>rd</sup> tier Subcontractor/subconsultant \_\_\_\_\_ Price or Percentage: \_\_\_\_\_

**Olsen Associates, Inc.**  
 Print name of Prime  
 By:   
 Authorized Signature  
CHRISTOPHER G. CREED, P.E.  
 Print name  
VICE PRESIDENT  
 Title  
 Date: 3/5/2020

**Terraquatic, Inc.**  
 Print name of Subcontractor/subconsultant  
 By:   
 Authorized Signature  
Kenneth C. Jackson  
 Print name  
President  
 Title  
 Date: 3/5/2020

March 4, 2020

Reubin Bishop, Environmental Analyst  
Palm Beach County Department of Environmental Resources Management  
2300 North Jog Road, 4th Floor  
West Palm Beach, FL 33411-2743



**olsen**  
associates, inc.  
Coastal Engineering

Re: Annual Coastal Engineering Contract  
Task Order 1543-04 Proposal  
North County Comprehensive Shore Protection Project  
Segment I Renourishment; Palm Beach County, Florida

Dear Mr. Bishop,

Attached please find supporting documentation for proposed Task Order 1543-04 of our existing contract with Palm Beach County.

Palm Beach County Department of Environmental Resources Management (County) has requested Olsen Associates, Inc. (OAI/Consultant), to provide a proposal for (1) pre-construction services, (2) construction services, and (3) miscellaneous additional services as they relate to the planned renourishment of the North County Comprehensive Shore Protection Project, Segment I. Designated surveying work will be conducted by OAI's sub-consultant Terraquatic, Inc. OAI's role in this task order is described in detail in the attached Scope of Services. A detailed summary of total proposed costs and Terraquatics' statement of work and cost proposal are attached to this letter.

Costs by task are detailed in the attached cost itemization table. The total proposed lump sum cost for all tasks is \$ \$244,493.00. Of this amount, \$10,480.00 or 4.2% is allocated to Terraquatics, Inc., a SBE certified firm.

Should you have any questions, please do not hesitate to contact me at [c Creed@olsen-associates.com](mailto:c Creed@olsen-associates.com) or (904) 387-6114 ext. 312.

Sincerely,

Christopher G. Creed, P.E.  
Vice President/Principal Engineer

Attachments

- Scope of Services and Cost Details
- Terraquatic Proposal

cc: File

**Scope of Services**  
**North County Comprehensive Shore Protection Project**  
**Segment I Renourishment**

**PREAMBLE:** This Scope of Services provides for Professional Coastal Engineering Consulting Services for the probable 2021 renourishment of the North County Comprehensive Shore Protection Project (NCCSPP) – Segment I (i.e., Jupiter-Carlin). Segment I extends approximately 1.02 miles between control monuments R13 and R19. In general, these services include (1) pre-construction services, (2) construction services, and (3) miscellaneous additional services. Olsen Associates, Inc. (OAI), the project designer, permit agent, and Engineer-of-Record, shall act as Engineering Consultant (CONSULTANT) during the period of work provided for in this Task Order.

**TASK 1.0: PRE-CONSTRUCTION SERVICES**

**Task 1.1: Design Survey, Final Design, Bid/Contract Documents**

The CONSULTANT shall (1) conduct a design beach profile survey, (2) develop final project design dimensions, (3) formulate contract/bid documents, and (4) assist the COUNTY with project bidding and contractor selection required for the construction of the 2021 NCCSPP Segment I renourishment project. It is assumed that the project sand will be sourced from a borrow area located offshore of Jupiter Inlet (FDEP P/N 0303863-006-JM).

**1.1.1 Design Survey**

Design Beach Profile Survey. CONSULTANT shall establish a construction baseline utilizing existing FDEP Range (R) monuments along the project shoreline as well as project specific intermediate monuments between the existing R-monuments. The CONSULTANT shall perform a final design beach profile survey at each primary and intermediate monument (13 profiles, in total) along the construction baseline prior to completion of the final design and construction plans. The CONSULTANT shall utilize the results of the final design survey to compare beach conditions with the conditions measured 1) by the most recent previously surveyed beach conditions, and 2) the surveyed conditions represented in the project permit application. The analyses shall identify any differences in required fill quantities and configuration necessary to maintain the permitted and desired beach dimensions.



Design Beach Profile Survey Deliverable. Final deliverables for beach profile survey shall include the following:

- AutoCAD format files (\*.dwg) showing data in plan and profile view on CD or DVD.
- One (1) draft copy (24" x 36") of beach profiles surveys. One (1) final electronic and one (1) hard copy signed and sealed copy (24" x 36") of beach profiles surveys.
- Surveyor Certification
- Field book copies in PDF format
- ASCII raw data file
- ASCII DEP xyz files
- DEP DZ formatted files
- ASCII monument information file

Borrow Area Design Survey. The permitted offshore sand borrow area was recently utilized for FCCE nourishment of NCCSPP - Segment I (Jupiter/Carlin) in the winter of 2019 by the US Army Corps of Engineers, Jacksonville District (USACE). To quantify the amount of sand that may be available in the permitted borrow area following completion of the Segment I FCCE project noted above, the CONSULTANT shall utilize a post-dredge hydrographic survey of the permitted borrow area. It is assumed that the post-dredge dredge hydrographic survey will be performed by a PLS licensed in Florida, and completed by others, likely the Segment I dredging contractor, and provided to the CONSULTANT by the COUNTY. If such a survey is not available, the CONSULTANT, through a qualified sub-consultant and under an independent Task Order, shall collect the requisite hydrographic survey data of the entire permitted borrow area (~477 acres) depicting post-dredge conditions. Either survey shall be used to determine the amount of material that may be available for the proposed project following the above noted USACE project.

### **Task 1.1.2 Final Design**

Final Beach Fill and Borrow Area Design. The CONSULTANT shall consider the most current project-related information and data to formulate a final design for the beach fill and offshore borrow area. Such information may include, but may not be limited to, the latest available aerial photographs, beach and borrow area design surveys, agency comments provided during the regulatory and resource agency project review, permit conditions, and any relevant results from prior engineering analyses. The CONSULTANT shall incorporate this information into final design analyses to determine the requisite configuration and dimensions of the beach fill and borrow area to meet COUNTY goals and project permit conditions. The CONSULTANT shall

update the required beach fill and borrow area volume computations for inclusion in the project plans and bid documents.

### **1.1.3: Plan and Project Manual Development and Bid Support**

Plans and Elements of the Project Manual. The CONSULTANT shall prepare the project construction plans and select elements of the Project Manual for the NCCSPP Segment I renourishment. The select elements of the Project Manual shall include the Bid Schedule, Supplemental General Conditions, Technical Specifications, bidder experience qualification (to be formulated in consultation with the COUNTY), and Environmental Protection Requirements as they relate to the borrow area excavation, transport of materials, and beach fill construction.

Construction Plans. The CONSULTANT shall develop project construction plans for the beach renourishment project based upon the final design configuration of the beach fill and borrow area. Construction plans shall include, but not be limited to, the project aerials (provided by COUNTY), bathymetric and sand isopach charts (which shall be updated to reflect conditions measured by the hydrographic survey proposed in Task 1.1.1), locations of various project elements, access locations and requirements, staging and storage areas, the location, dimension, and dredging criteria for the offshore borrow area, boring logs, grain size distribution curves, beach fill and borrow area cross-sections (templates), beach fill Acceptance Sections and fill schedules, offshore travel corridors, pipeline corridors, alongshore limits of dune construction (COUNTY coordination may be required), dune vegetation, and other information required for description of the intended work and the requirements of dredging contractors preparing bids for the proposed work.

CONSULTANT shall develop a dredge plan for the offshore borrow area intended to describe the most efficient utilization of the borrow area and emphasize the conservation of available beach compatible sediments therein. The dredge plan shall define allowable excavation areas within the borrow area such that any remaining material can be effectively dredged during subsequent events.

Technical Specifications. The CONSULTANT shall prepare technical specifications that describe the work to be performed and performance criteria of each work element. The technical specifications shall include a project schedule, description for the project layout and control, order of work requirements, performance of work criteria, pre- and post-construction documentation requirements and allowable tolerances, survey requirements, methods of payment, dredge material quality criteria, contractor reporting requirements, beach tilling and

escarpment adjustment requirements, vibration monitoring specifications, and environmental protection requirements that relate to dredging operations in the borrow area and construction of the beach renourishment project.

CONSULTANT shall coordinate with COUNTY procurement in order to ensure consistency between the Construction Plans, Technical Specifications, and Supplemental General Conditions with standard COUNTY requirements. As needed, CONSULTANT shall advise COUNTY on scope of appropriate liquidated damages and CONTRACTOR qualifications for inclusion in the contract conditions and the Project Manual. CONSULTANT shall review General Conditions (developed by COUNTY) for compliance with Federal contracting requirements, as appropriate.

Deliverables. The CONSULTANT shall submit draft versions of the Plans and elements of the Project Manual to the COUNTY, as necessary, for review. The CONSULTANT shall provide up to three (3) revisions of the Plans and elements of the Project Manual that may be required by COUNTY and regulatory review. The CONSULTANT shall provide two (2) signed and sealed hard copies of the finalized Plans and one (1) electronic version of the signed and sealed Plans.

The CONSULTANT shall prepare and provide to the COUNTY an electronic version and two (2) hard copies of the Bid Schedule, Supplemental General Conditions, Technical Specifications, and Environmental Protection Requirements for incorporation into the COUNTY's final Project Manual document. The CONSULTANT shall be available to assist the COUNTY with final QA/QC review of the Project Manual prior to bid.

#### **Task 1.2: Bid Support**

The CONSULTANT shall support the COUNTY during the bid process required for contractor identification and selection. In preparation of the bid advertisement, the CONSULTANT shall provide the COUNTY with a list of dredge contractors which have the experience, equipment, qualifications, and expertise to carry out the various elements of project construction.

CONSULTANT shall assist the COUNTY in preparing for and participating in one (1) pre-bid conference and one (1) field visit to the project location, at which CONSULTANT shall be prepared and available to answer technical and engineering questions related to the project. It is assumed that the field visit will occur on the same day as the pre-bid conference. CONSULTANT shall prepare a technical summary of the project for distribution to each attendee at the pre-bid meeting. This document shall be made available to the COUNTY within three (3) days of the event.

---

CONSULTANT shall provide the COUNTY with timely responses to the inquiries of prospective bidders for use in written addenda, as required. It is assumed that the COUNTY shall prepare and distribute necessary addenda to prospective bidders.

Within seven (7) days following bid opening, CONSULTANT shall provide to COUNTY an evaluation of the bids for technical completeness, full responsiveness to technical requirements and price, including alternative prices and unit prices. CONSULTANT shall provide a written recommendation to COUNTY with respect to award of the contract. Non-technical bid issues and bidder references shall be evaluated by the COUNTY.

## **TASK 2.0: CONSTRUCTION SERVICES**

The CONSULTANT shall support the COUNTY during project construction by providing limited permit compliance review and limited oversight services. In addition to being available to County staff to address questions and provide clarification on design and contract requirements during the construction period, the CONSULTANT shall assist the COUNTY with the following tasks.

Notice to Proceed. The CONSULTANT shall make all required submittals to FDEP and the U.S. Army Corps of Engineers for issuance of respective regulatory Notices to Proceed.

Pre-Construction Conference. The CONSULTANT shall prepare for and attend a pre-construction conference to review construction methodologies, specific site conditions, survey, and monitoring requirements of the Permits with the CONTRACTOR, CONTRACTOR's associated SUB-CONTRACTORS, COUNTY staff and other involved parties. The CONSULTANT shall conduct a brief overview of the project and shall reiterate communications and reporting protocols for the duration of CONTRACTOR mobilization, construction, and demobilization activities. The conference shall be held at least 21 days prior to the commencement date of construction. A minimum 7 days advance written notification to the parties advising of the date, time, and location of the pre-construction conference shall be provided.

Project Layout. Prior to the initiation of dredging, the CONSULTANT shall update the computation of the volume required for the fill and rebalance the fill as allowable by permit for purposes of reflecting changed conditions along the beach and monitoring the anticipated contract amount. As necessary, deliverables shall include revised design sheets, modified Acceptance Sections and berm and dune width tabulations necessary for layout. It is assumed that the survey data required for this rebalance shall be provided by the CONTRACTOR.

Site Representation during Construction. It is understood that the COUNTY will provide dedicated Site Representative(s) for on-site construction compliance observations during the construction period. These observers will review and document contractor and construction activities for the purpose of reviewing contract and permit compliance. Daily observations will be provided to both the COUNTY and CONSULTANT. It is assumed that data collected by COUNTY construction observers shall be sufficient for supporting a determination of project compliance with all relevant permit conditions.

The CONSULTANT shall review information provided by the COUNTY and the CONTRACTOR's daily quality control reports (daily reports) throughout the duration of the project from contractor mobilization through contractor demobilization from the project site. The CONSULTANT shall likewise review water quality monitoring reports to be provided by the CONTRACTOR. The CONSULTANT shall also review the dredge position data to be provided by the CONTRACTOR. The horizontal and vertical position data will be evaluated and compared to the permitted borrow area limits. Violations will be reported to the CONTRACTOR and COUNTY.

The CONSULTANT shall conduct visits to the project site once every two weeks, on average, during construction. This assumes the construction will not exceed 90 days in duration. The purpose of these visits shall be to confirm the condition of completed portions of the project, review construction activities personally, and be available to address any outstanding questions that the COUNTY and/or project contractor may have regarding project requirements and construction activities. Upon completion of each site visit, the CONSULTANT shall prepare a summary memorandum for the COUNTY that details observations, activities, and action items generated from the site visit and meetings with county representatives and the construction CONTRACTOR.

Through construction observation documentation and information provided by the COUNTY, CONSULTANT staff observation, and the construction CONTRACTOR's daily reports, the CONSULTANT shall monitor progress of the work, track construction contractor activities, production rates, including delays and sources thereof, and notify the COUNTY or regulatory agencies as appropriate.

The Project Engineer or COUNTY's Site Representative shall attend periodic progress meetings either by teleconference or in person with the CONTRACTOR and the CONTRACTOR's associated subcontractors, as appropriate during construction.

Sediment QA/QC. Sand sampling and laboratory testing for the purposes of sediment QA/QC and permit compliance during construction is not provided for in this Task Order. It is understood that the COUNTY and/or the COUNTY's construction contractor will be responsible for all visual inspection and collection of the requisite compliance sand samples during project construction.

The CONSULTANT shall assist the COUNTY with evaluation of sediment samples and laboratory results produced for permit compliance. Compliance criteria will be estimated or

measured by others and reported to CONSULTANT. In the event that non-compliant material is deposited onto the beach, CONSULTANT shall coordinate with County staff and notify the appropriate regulatory agencies as required by permit. The CONSULTANT shall also be available to makes recommendations regarding corrections to dredge positioning within the borrow area, as necessary, to address any sediment compliance issues.

CONTRACTOR Plan or Submittal Review. The CONSULTANT shall review and comment on the acceptance of the following typical Plans-of-Action or submittals required of the CONTRACTOR and supplied to the CONSULTANT by the COUNTY:

- a) Quality Control Plan (include QA/QC Plan compliance)
- b) Notice-To-Mariners (USGS)
- c) Survey and Construction Baseline Plan
- d) Grade Stake Recovery Plan
- e) Dredge Excavation Plan (Borrow Site); Pipeline Corridor Plan
- f) Environmental Protection Plan, including required monitoring
- g) Structure Protection/Vibration Monitoring Plan
- h) Accident Prevention Plan as part of Safety Plan
- i) Severe Storm Plan as part of Safety Plan
- j) Operations Plan

The CONSULTANT shall review the results of vibration (or other) monitoring performed by the CONTRACTOR throughout the duration of the work (as applicable).

CONTRACTOR Requests for Payment. The CONSULTANT shall review the CONTRACTOR's progress and payment (AD/BD) surveys for compliance with the project Plans and payment eligibility criteria. The CONSULTANT shall be available to make decisions regarding the acceptance of completed areas of the beach fill. The CONSULTANT shall make a volumetric comparison of the pre-construction survey and the CONTRACTOR's pay survey in order to verify the section was filled to specifications and assist the COUNTY in evaluating the periodic and final payments to the CONTRACTOR. The CONSULTANT shall also review all pay requests submitted by the construction contractor for accuracy, completeness, and compliance with approved work.

The CONSULTANT shall assist the COUNTY in assembling the documentation needed for any potential future State or Federal reimbursement or cost sharing.

---

Notice of Anticipated Deviation. The CONSULTANT shall notify the COUNTY and the appropriate regulatory agencies in writing of any anticipated deviation from the Permits. If deemed necessary, a minor modification to any Permit will be formulated and submitted.

Notice of Non-Compliance. CONSULTANT shall prepare and submit all notices of non-compliance to the State and Federal agencies, as appropriate. Collection of all data relied upon to determine compliance shall be provided by the COUNTY.

Certification of Completion. Within 30 days after completion of construction authorized by the permit and receipt of post-construction surveys, the CONSULTANT shall submit to the COUNTY a written statement of completion and certification by a registered professional engineer. This certification shall state that all locations and elevations specified by the permits have been verified; the activities authorized by the permits have been performed in compliance with the plans and specifications approved as a part of the permits, and all conditions of the permits; or shall describe any deviations from the plans and specifications, and all conditions of the permits. When the completed activity differs substantially from the permitted plans, any substantial deviations shall be noted and explained on two copies of as-built drawings.



## **TASK 3.0: ADDITIONAL SERVICES**

### **Task 3.1: Post-Construction Documentation Report**

Subsequent to completion of the project, OAI shall formulate a post-construction documentation report that describes the various elements of the construction and completed work for the purpose of describing the project as an “engineered beach”. The documentation report will be available as necessary to describe the project for the purposes of future eligibility for USACE and FCCE related post-disaster funding in general conformance with the Stafford Act. The report will document the post-construction condition of the engineered beach and borrow area as described by the post-construction beach profile and borrow area surveys. The report will also document relevant aspects of the project design and construction which will be beneficial in the design and planning of future renourishment efforts. The post-construction report will likewise provide a technical predicate to the first year of post-construction monitoring. That is to say, it provides the baseline condition for subsequent annual monitoring surveys/reporting. It likewise will serve as a form of evidence to the State and Federal agencies regarding permit compliance and eligibility for future cost reimbursement or cost-sharing, should such become available.

The report will discuss contractor productivity, dredging techniques and conditions, weather conditions during the prosecution of the work, borrow site usage, soil quality, constructability issues, etc. Additionally, the report will summarize the bid results, elements of the total cost to construct, permit, environmental (in general) issues occurring during the period of construction and other factors potentially affecting future projects. The CONSULTANT shall access, analyze, and summarize CONTRACTOR related data obtained from daily reports, project specific reporting submittals, internal reports, etc. Whenever possible such databases will be formulated in a graphic format for visual interpretation by the layman. It is assumed that all survey documentation for the project limits will be provided to the COUNTY by the CONTRACTOR as part of the contract deliverables.

Deliverable. The CONSULTANT shall provide to the COUNTY one PDF copy of the draft report for review and comments by the COUNTY. Following receipt of comments from County staff, the CONSULTANT shall make one revision to the draft document and produce a final version of the report for submittal to the COUNTY. The CONSULTANT shall produce one PDF copy of the final report and submit to the COUNTY.

Schedule. The report shall be delivered to the County within 90 days following final acceptance of the completed project and/or delivery of requisite project-related data, whichever is later.

Scope of Services  
North County Comprehensive Shore Protection Project  
Segment I Renourishment  
Task Order 1543-04  
COST DETAILS

Sub Task 1.1.1 - Design Survey														
DIRECT LABOR										OUTSIDE SVS/SUB-CONTRACTORS				
LABOR CATEGORY	ADMIN/ MGMT	LIASON	QA/QC						TOTAL HOURS	RATE	COST	SERVICE	COST	
Principal	2								2	\$ 209.00	\$ 418.00	Terraquatic	\$10,480	
Sr Engineer	2		2						4	\$ 154.00	\$ 616.00			
Coastal Engr III		4	8						12	\$ 111.00	\$ 1,332.00			
Coastal Engr II									0	\$ 99.00	\$ -			
Coastal Engr I			2						2	\$ 95.00	\$ 190.00			
ACAD Tech/Designer									0	\$ 81.00	\$ -			
Administrative Assistant	2								2	\$ 85.00	\$ 170.00			
SUBTOTAL DIRECT LABOR												\$ 2,726.00	subtotal	\$10,480
Sub Task 1.1.2 - Final Design														
DIRECT LABOR										OUTSIDE SVS/SUB-CONTRACTORS				
LABOR CATEGORY	ADMIN/ MGMT	LIASON	QA/QC	DESIGN	DOC PREP.	MEETINGS			TOTAL HOURS	RATE	COST	SERVICE	COST	
Principal	8		4						12	\$ 209.00	\$ 2,508.00			
Sr Engineer	8	4	16	40	4	16			88	\$ 154.00	\$ 13,552.00			
Coastal Engr III	2	4		28	24	4			62	\$ 111.00	\$ 6,882.00			
Coastal Engr II									0	\$ 99.00	\$ -			
Coastal Engr I									0	\$ 95.00	\$ -			
ACAD Tech/Designer				24	16				40	\$ 81.00	\$ 3,240.00			
Administrative Assistant	4			48	8				60	\$ 85.00	\$ 5,100.00			
SUBTOTAL DIRECT LABOR												\$ 31,282.00	subtotal	\$0
Sub Task 1.1.3 - Plans, Technical Specifications, and Project Manual Development														
DIRECT LABOR										OUTSIDE SVS/SUB-CONTRACTORS				
LABOR CATEGORY	ADMIN/ MGMT	LIASON	QA/QC	Review Coordination	DOC PREP.	MEETINGS			TOTAL HOURS	RATE	COST	SERVICE	COST	
Principal			24	8					32	\$ 209.00	\$ 6,688.00			
Sr Engineer	16	16	16	8	40	4			100	\$ 154.00	\$ 15,400.00			
Coastal Engr III	2	4		32	88	16			142	\$ 111.00	\$ 15,762.00			
Coastal Engr II					20				20	\$ 99.00	\$ 1,980.00			
Coastal Engr I					16	8			24	\$ 95.00	\$ 2,280.00			
ACAD Tech/Designer				16	80				96	\$ 81.00	\$ 7,776.00			
Administrative Assistant	4				24				28	\$ 85.00	\$ 2,380.00			
SUBTOTAL DIRECT LABOR												\$ 52,266.00	subtotal	\$0

Scope of Services  
 North County Comprehensive Shore Protection Project  
 Segment I Renourishment  
 Task Order 1543-04  
 COST DETAILS

Sub Task 1.2 - Bid Support													
DIRECT LABOR											OUTSIDE SVS/SUB-CONTRACTORS		
LABOR CATEGORY	ADMIN/ MGMT	LIASON	QA/QC	MEETING PREP	MEETINGS	BID ANALYSIS	DOC PREP.		TOTAL HOURS	RATE	COST	SERVICE	COST
Principal	4	4	8	4	10	3			33	\$ 209.00	\$ 6,897.00		
Sr Engineer	4	4	12	2	10	5	8		45	\$ 154.00	\$ 6,930.00		
Coastal Engr III			2	2			24		28	\$ 111.00	\$ 3,108.00		
Coastal Engr II									0	\$ 99.00	\$ -		
Coastal Engr I									0	\$ 95.00	\$ -		
ACAD Tech/Designer									0	\$ 81.00	\$ -		
Administrative Assistant	4						16		20	\$ 85.00	\$ 1,700.00		
SUBTOTAL DIRECT LABOR											\$ 18,635.00	subtotal	\$0
Sub Task 2.0 - Construction Services													
DIRECT LABOR											OUTSIDE SVS/SUB-CONTRACTORS		
LABOR CATEGORY	ADMIN/ MGMT	LIASON	DATA ASSEMBLY	QA/QC	ANALYSES	DESIGN	REPORTING	MEETINGS	TOTAL HOURS	RATE	COST	SERVICE	COST
Principal	8			40				30	78	\$ 209.00	\$ 16,302.00		
Sr Engineer	16	24		16		2	8	30	96	\$ 154.00	\$ 14,784.00		
Coastal Engr III	16	32	16	20	40	16	40	40	220	\$ 111.00	\$ 24,420.00		
Coastal Engr II		24	8	24	40		20	40	156	\$ 99.00	\$ 15,444.00		
Coastal Engr I			40	24				20	84	\$ 95.00	\$ 7,980.00		
ACAD Tech/Designer						6	16		22	\$ 81.00	\$ 1,782.00		
Administrative Assistant	8						16		24	\$ 85.00	\$ 2,040.00		
SUBTOTAL DIRECT LABOR											\$ 82,752.00	subtotal	\$0
Sub Task 3.1 - Additional Services (Post-Construction Report)													
DIRECT LABOR											OUTSIDE SVS/SUB-CONTRACTORS		
LABOR CATEGORY	ADMIN/ MGMT	LIASON	DATA ASSEMBLY	QA/QC	ANALYSES	DOC PREP.			TOTAL HOURS	RATE	COST	SERVICE	COST
Principal				4		8			12	\$ 209.00	\$ 2,508.00		
Sr Engineer	8	8	16	16	16	80			144	\$ 154.00	\$ 22,176.00		
Coastal Engr III	4	4	16		24	32			80	\$ 111.00	\$ 8,880.00		
Coastal Engr II			8		20				28	\$ 99.00	\$ 2,772.00		
Coastal Engr I			8	36	20				64	\$ 95.00	\$ 6,080.00		
ACAD Tech/Designer						36			36	\$ 81.00	\$ 2,916.00		
Administrative Assistant	4					8			12	\$ 85.00	\$ 1,020.00		
SUBTOTAL DIRECT LABOR											\$ 46,352.00	subtotal	\$0
SUBTOTAL ALL TASKS											\$ 234,013.00		\$ 10,480.00
TOTAL											\$ 244,493.00		

3/5

**Terraquatic, Inc.**  
**1220 Tangelo Terr, Unit A-12**  
**Delray Beach, Florida 33444**

**TERRAQUATIC**  
SURVEYING AND MAPPING

January 21, 2020

Chris Creed, P.E.  
Olsen Associates, Inc.  
2618 Herschel Street  
Jacksonville, Florida 32204

**RE: Professional Surveying and Mapping Proposal  
Hydrographic / Topographic Surveying & Mapping  
Onshore / Offshore Profiles  
Jupiter / Carlin R-13 to R-19 & Intermediate Design Profiles  
Palm Beach County, Florida**

Dear Chris,

In accordance with your request, Terraquatic Inc. is pleased to provide the following proposal for professional services pertaining to the above referenced project. The scope of services shall encompass collecting thirteen (7) onshore / offshore FDEP beach profiles lines, R-13 to R-19 and (6) intermediate or half-monument profile lines, a total of (13) profiles.

Upland and offshore profiles shall be collected following the same standards as described for typical monitoring surveys. Data shall be collected landward to a point of refusal such as impenetrable vegetation, building, roadway or other permanent improvement. Upland profiles shall extend and overlap the offshore survey by 100-ft. The offshore profiles shall extent seaward 1-mile from the approximate shoreline. Profiles shall be collected along historic profile azimuths with newly established intermediate profiles collected along azimuths either parallel to the adjacent lines or an average azimuth in the case of non-parallel adjacent profiles. Intermediate profiles shall not be monumented as part of this survey scope, but could be included in a separate scope of services if required.

**Final Deliverables Beach Profiles**

- AutoCAD format files (\*.dwg) showing data in plan and profile view on CD or DVD.
- One (1) draft copy (24" x 36") of beach profiles surveys. One (1) final signed and sealed copy (24" x 36") of beach profiles surveys.
- One (1) electronic set of signed and sealed beach profiles in 11" x 17" PDF format with legible seal or an electronic seal.
- Surveyor Certification
- Field book copies in PDF format
- Survey report/monument control report
- QA/AC Report
- ASCII raw data file
- ASCII DEP xyz files
- DEP DZ formatted files
- ASCII monument information file
- Digital photos of monument locations
- Metadata files
- Completed GIS Data Sheet

We appreciate the opportunity to provide this proposal and look forward to the opportunity of performing design survey survey for Olsen Associates, Inc. & Palm Beach County.

Sincerely,  
Terraquatic, Inc.



Kenneth C. Jackson, PSM  
Terraquatic, Inc.

**Terraquatic, Inc.**  
**1220 Tangelo Terr, Unit A-12**  
**Delray Beach, Florida 33444**



**Crew and office cost breakdown**

**Jupiter / Carlin Beach Profiles**

*Profiles R-13 through R-19, including intermediates, 13-Profiles Onshore /*

**Offshore Beach Profiles -Jupiter/Carlin Beach**

<b>Onshore / Offshore Profiles</b>				
<b>Cost Breakdown:</b>				
<b>Crew / Services</b>	<b>Estimated Hours</b>	<b>Regular Hourly Rate</b>	<b>Unit</b>	<b>Total Cost</b>
2- Person GPS Crew	4	\$175.00	Crew Hour	\$700
3-Person GPS Crew	16	\$225.00	Crew Hour	\$3,600
3-Person Hydrographic Crew	10	\$255.00	Crew Hour	\$2,550
<hr/>				
Computer / Processing CADD	24	\$90.00	Per Hour	\$2,160
Field Survey Manager / Planning	8	\$95.00	Per Hour	\$760
Project Manager	2	\$130.00	Per Hour	\$260
Professional Surveyor & Mapper	3	\$150.00	Per Hour	\$450
<b>Total Cost:</b>				<b>\$10,480 ✓</b>

**Olsen Associates, Inc.**  
**Continuing Contract for Coastal and Marine Engineering Services**

Contract (R2019-1543) dated October 8, 2019 for a period of two years expires on October 7, 2021.  
 SBE-M/WBE Goal 40.0% (16% SBE/White Male; 6% SBE/Woman; 2% SBE/Asian; 16% State certified Woman)

**Task Order summary:**

TASK NUMBER	TOTAL/ SBE and/or MWBE AMOUNT	TASK DUE DATE	TASK DESCRIPTION	APPROVED BY/DATE
1543-01	10,406.00 0.00	12/31/2019	South Jupiter Dune Restoration Notice to Proceed	ERM 10/28/2019
1543-02	3,674.00 3,065.00	12/31/2019	South Jupiter Dune Restoration Easement Areas	ERM 11/26/2019
1543-03	47,004.00 0.00	9/30/2020	Jupiter/Carlin Shore Protection Project - Post Construction Physical Monitoring	ERM 2/26/2020
1543-04	244,493.00 10,480.00	8/31/2021	North County Comprehensive Shore Protection Project - Segment I (Jupiter/Carlin)	BCC