



APTIM  
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Boca Raton, FL 33487  
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nicole.sharp@aptim.com

September 2, 2022

Robin Gomez  
Madeira Beach, City Manager  
300 Municipal Drive  
Madeira Beach, FL 33708

**Re: Johns Pass Dredging Design, Permitting, and Pre-construction Services**

Dear Robin:

This letter is in response to the City of Madeira Beach (City) request for a proposal for Aptim Environmental & Infrastructure, LLC (APTIM) to perform design, permitting, and pre-construction services to support dredging of the northern shoreline of Johns Pass. Tasks within this proposal include Agency Pre-Application Meeting, Topographic and Hydrographic Survey, Engineering and Design, FDEP and USACE Permitting, RAI Phase, Finalize Permit Application Process, Construction Plans and Specifications, and Bidding Assistance.

Included as Exhibits are the Scope of Work (Exhibit A), the Fee Proposal (Exhibit B), and the Rate Schedule (Exhibit C). APTIM proposes to perform these services on a lump sum basis not to exceed \$136,727. The services proposed herein will be governed by the terms and conditions of contract number 167-0486-CN (RW) between Pinellas County and Aptim Environmental & Infrastructure, LLC, dated March 20, 2018. Barring any unforeseen circumstances, all work will be completed within 425 days of receiving the County's Notice to Proceed.

Sincerely,

Nicole S. Sharp, P.E.  
Coastal Market Lead  
Aptim Environmental & Infrastructure, LLC

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Client Authorized Signature

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Printed Name

cc: Beau Suthard, P.G., APTIM

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Title



**Exhibit A**  
**Scope of Work**



APTIM  
6401 Congress Avenue, Suite 140  
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Tel: +1 561 391 8102

**Johns Pass Dredging  
Design, Permitting and Pre-construction Services, Madeira Beach, Florida  
Scope of Work**

## **INTRODUCTION**

Since the mid-1990's to present, the City of Madeira Beach (City) has experienced increased sedimentation along the northern side of the channel within Johns Pass. The sedimentation is likely attributed to alongshore sediment transport of sand moving north to south, which becomes entrained via tidal currents along the updrift bank of the inlet. In order to mitigate for this sedimentation, it is the City's desire to dredge this area to restore access to adjacent marinas and remove the excess sediment from the Pass. The following scope of work provides details for the design, permitting, and pre-construction services to support dredging of Johns Pass.

### **Task 1 – Agency Pre-Application Meeting**

Upon receipt of a Notice to Proceed from the City, we will coordinate with Florida Department of Environmental Protection (FDEP) and the U.S. Army Corps of Engineers (Corps) in order to schedule pre-application meetings. Prior to attending these meetings, we will develop a project description and supporting information that summarize the project history, natural resources in the project vicinity, and geotechnical investigation results. We will coordinate the project description with the City prior to the pre-application meeting. This information will be submitted to the agencies with a meeting agenda in advance of the pre-application meetings to allow agency staff ample time to prepare.

APTIM representatives will attend a video teleconference pre-application meeting with representatives from the City, FDEP and Florida Fish and Wildlife Commission (FWC). The purpose of this meeting is to present the proposed project, identify any areas of concern, gather agency input on the project and facilitate an expedited permit process. Due to Florida Department of Transportation (FDOT) rights-of-way within the area, FDOT representative may also be invited to participate to identify any concerns.

Following the pre-application meeting with FDEP and FWC, we will coordinate with the local Corps office to present our proposed project and obtain feedback from their staff. Representatives from U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) may also participate in the pre-application meeting if deemed necessary. During this meeting, we will summarize FDEP's guidance. The goal will be to integrate the Corps process with the State's permitting procedure for streamlined coordination.

Following both pre-application meetings, APTIM will prepare and submit a summary of each meeting to the State and federal agencies for review and comment. This will document the information presented and decisions made during the meetings for future reference. Ultimately, recommendations will be made to the City based upon results of these meetings and a path forward will be developed.

### **Task 2 – Topographic and Hydrographic Survey**

APTIM will conduct a bathymetric and topographic survey of selected cross sections and profiles from the project area. All survey work will be conducted under direct supervision of the of the registered Florida



professional surveyor and mapper. All data collection and deliverables will adhere to Section 01000 and Section 01100 of the Florida Department of Environmental Protection (FDEP), Division of Water Resource Management's *Monitoring Standards for Beach Erosion Control Projects, May 2014 (revised October 2014)* and will be in accordance to Chapter 5J-17 Florida Administrative Code (F.A.C.) pursuant to Chapter 472 of the Florida Statutes (FS) and U.S. Army Corps of Engineers (USACE) protocol.

### **Task 3 – Engineering and Design**

Based upon feedback received during the pre-application meetings, APTIM will design a dredge template for the northern shoreline of the Pass and potential disposal options. The design will utilize the survey conducted by APTIM in Task 2. The design will include lines, grades, and volumes for the amount of material to be excavated from the channel. The disposal location will be finalized and coordinated with the City during this task.

### **Task 4 – FDEP and USACE Permitting**

APTIM will act as the agent for the City throughout the permit application process for the proposed project. This task will include professional services to support state and federal permitting efforts of the final selected plan. The permit application will include the dredging of northern portion of Johns Pass. APTIM will prepare and submit the relevant state and federal permit applications by integrating the environmental, geological, and engineering components. Justification for potential impacts to natural resources from construction of the project will also be included within the permit package. Information to be incorporated into the permit application shall include:

- A description of the existing conditions
- Historical background information
- Justification of the maintenance dredging project
- A written description of the project's design features
- Anticipated construction methods
- Relevant environmental information
- Relevant geological data
- Permit drawings
- Monitoring plans as required

APTIM biologists will coordinate with various agencies to obtain, review, and compile updated environmental data for presentation in the application. This task anticipates the use of existing data and does not include field investigations. If resource surveys are requested by agencies during the permitting process, APTIM can provide a separate proposal to conduct those specific surveys.

A draft permit application will be prepared for review by the City. Once the City has reviewed the application, APTIM will submit the final permit applications to the FDEP and the Corps.

It is anticipated that the City will provide all permit fees directly to the permit agencies and will be responsible for publication of any public notices. APTIM will work closely with the City to support agency staff and their permitting review in an effort to expeditiously secure final permits, to the greatest extent practical.



## **Task 5 – RAI Phase**

Typically, within 30-60 days following receipt of the JCP application, the FDEP issues a “Request for Additional Information” (RAI) which outlines what information is still needed in order to complete the application. This RAI includes comments from FDEP staff as well as any comments from FWC. The Corps may also submit questions, sometimes on behalf of USFWS and NMFS or to support preparation of their public notice. APTIM will respond to State and federal agency questions and provide all required data and information in order to deem the project files complete, allowing the agencies to process and finalize the permits. This proposal assumes one formal RAI response from both each regulatory agency (FDEP and Corps).

## **Task 6 – Final Permit Application Process**

APTIM will work closely with the agencies to complete the permitting process and obtain both State and federal permits. APTIM will coordinate with the agencies during this period and provide any last minute documentation that is requested. APTIM will negotiate permit conditions after review of the draft permits. We will review permit and Biological Opinion project descriptions and Terms and Conditions for accuracy and consistency.

## **Task 7 – Construction Plans and Specifications**

APTIM will develop construction plans and technical specifications that will provide the necessary details to the Contractor to construct the project and adhere to permit conditions. It is assumed that the City will provide front-end documents, including general conditions, and provide the overall format of the contract documents such that the technical specifications can be incorporated without duplication or conflict in terms and conditions.

The construction plans will include plan views and cross-sections sufficient for the construction of the project. The plans will provide survey control information which will allow the contractor to control and construct the channel. The spoil site will be delineated within the disposal locations allowed by FDEP and USACE permit conditions.

Specifications developed for the project will include: Technical Specifications with Environmental Protection Summary. We will integrate the permit conditions into the document. The Engineer will provide plans and specifications in Acrobat and Word format.

## **Task 8 – Bidding Assistance**

Once the construction plans and technical specifications are completed, APTIM will provide the City with a bid package containing: construction plans, technical specifications, project permits, bid form, and contractor questions integrated into the specifications. An engineer’s opinion of probable costs will be prepared. After the City bid announcement is published, APTIM staff will participate in the pre-bid meeting and assist the City in answering technical questions as needed during the bidding process. Once the bids have been opened, APTIM will assist the City in reviewing the bids and preparing a recommendation for award based on a review of the bids deemed responsive by City procurement.

## **ASSUMPTIONS**

This scope does not include environmental resource investigations, modeling studies, or additional geotechnical investigations, or construction administration, which may be performed by City staff or by our Team under a future phase of work.



**Exhibit B**  
**Fee Proposal**



SPM REVISION: 2021 - REV 21.3

Release Date: 5/18/21

PROJECT NUMBER: 631028032  
 PROPOSAL NUMBER: A1A1XXXX  
 Date Pricing Model was Prepared: 8/23/22

**Project Estimate**  
**Summary By Task**  
 Madeira Beach Johns Pass Dredging  
 09/02/22

| Task Number     | Task Name                             | Labor                | Sub-contractors | Equipment          | Materials   | Other ODC's | Travel           | Total                | Adjustments | Total Project        |
|-----------------|---------------------------------------|----------------------|-----------------|--------------------|-------------|-------------|------------------|----------------------|-------------|----------------------|
| Tsk-001         | Agency Pre-Application Meetings       | \$ 6,695.00          | \$ -            | \$ -               | \$ -        | \$ -        | \$ -             | \$ 6,695.00          | -           | \$ 6,695.00          |
| Tsk-002         | Topographic and Hydrographic Survey   | \$ 14,995.00         | \$ -            | \$ 2,486.00        | \$ -        | \$ -        | \$ 836.00        | \$ 18,317.00         | -           | \$ 18,317.00         |
| Tsk-003         | Engineering and Design                | \$ 8,970.00          | \$ -            | \$ -               | \$ -        | \$ -        | \$ -             | \$ 8,970.00          | -           | \$ 8,970.00          |
| Tsk-004         | FDEP and USACE Permitting             | \$ 45,320.00         | \$ -            | \$ -               | \$ -        | \$ -        | \$ -             | \$ 45,320.00         | -           | \$ 45,320.00         |
| Tsk-005         | RAI Phase                             | \$ 23,430.00         | \$ -            | \$ -               | \$ -        | \$ -        | \$ -             | \$ 23,430.00         | -           | \$ 23,430.00         |
| Tsk-006         | Final Permit Application Process      | \$ 2,370.00          | \$ -            | \$ -               | \$ -        | \$ -        | \$ -             | \$ 2,370.00          | -           | \$ 2,370.00          |
| Tsk-007         | Construction Plans and Specifications | \$ 22,880.00         | \$ -            | \$ -               | \$ -        | \$ -        | \$ -             | \$ 22,880.00         | -           | \$ 22,880.00         |
| Tsk-008         | Bidding Assistance                    | \$ 8,745.00          | \$ -            | \$ -               | \$ -        | \$ -        | \$ -             | \$ 8,745.00          | -           | \$ 8,745.00          |
| <b>Totals =</b> |                                       | <b>\$ 133,405.00</b> | <b>\$ -</b>     | <b>\$ 2,486.00</b> | <b>\$ -</b> | <b>\$ -</b> | <b>\$ 836.00</b> | <b>\$ 136,727.00</b> | <b>\$ -</b> | <b>\$ 136,727.00</b> |

Submitted By: Nicole Sharp  
 Submitted To: Madeira Beach Johns Pass Dredging  
 Submission Date: 09/02/22



**Exhibit C**  
**Rate Schedule**





Aptim Environmental & Infrastructure, Inc.  
2481 NW Boca Raton Boulevard  
Boca Raton Florida 33431  
Tel: +1 561-391-8102  
Fax: +1 561-391-9116

**EXHIBIT A**  
**SCHEDULE OF FULLY-LOADED (BURDENED) RATE VALUES**  
**APTIM ENVIRONMENTAL & INFRASTRUCTURE, INC.**  
**PINELLAS COUNTY, FLORIDA**  
**RFP CONTRACT NO. 167-0486-CN (RW)**

| <b>I. PERSONNEL CLASSIFICATION</b>   | <b><u>Rate</u></b> |
|--------------------------------------|--------------------|
| Principal Engineer.....              | 270.00/hour        |
| Expert Witness (Testimony) .....     | 270.00/hour        |
| Senior Project Manager.....          | 230.00/hour        |
| Project Manager .....                | 185.00/hour        |
| Program Manager .....                | 170.00/hour        |
| Senior Coastal Engineer.....         | 185.00/hour        |
| Coastal Engineer III .....           | 150.00/hour        |
| Coastal Engineer II .....            | 125.00/hour        |
| Coastal Engineer I .....             | 110.00/hour        |
| Coastal Modeler II.....              | 130.00/hour        |
| Coastal Modeler I.....               | 110.00/hour        |
| Professional Surveyor & Mapper ..... | 130.00/hour        |
| Hydrographer .....                   | 125.00/hour        |
| Surveyor.....                        | 95.00/hour         |
| Survey Technician.....               | 80.00/hour         |
| Senior Marine Biologist .....        | 140.00/hour        |
| Marine Biologist II .....            | 120.00/hour        |
| Marine Biologist I .....             | 90.00/hour         |
| Professional Geologist.....          | 130.00/hour        |
| Geologist IV.....                    | 150.00/hour        |
| Geologist III.....                   | 125.00/hour        |
| Geologist II .....                   | 110.00/hour        |
| Geologist I .....                    | 95.00/hour         |
| Senior CAD Operator .....            | 150.00/hour        |
| CAD Operator .....                   | 110.00/hour        |
| GIS Operator .....                   | 110.00/hour        |
| Boat Captain.....                    | 90.00/hour         |
| Bookkeeper .....                     | 80.00/hour         |
| Clerical.....                        | 75.00/hour         |
| Technician.....                      | 60.00/hour         |

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| <b>II. EQUIPMENT</b>  | <b><u>Rate</u></b> |
|---|--------------------|
| Truck (2WD road use).....   | \$0.565/mile       |
| Truck (4WD beach use).....  | 110.00/day         |
| Survey Boat (28 ft. Parker) .....   | 1,050.00/day       |
| Survey Boat (24 ft. Privateer) .....  | 790.00/day         |
| Survey Sea Sled .....   | 310.00/day         |
| All Terrain Vehicle .....   | 105.00/day         |
| Enclosed 18" Trailer .....  | 78.00/day          |
| Trimble RTK GPS .....   | 495.00/day         |
| Trimble Differential GPS.....   | 415.00/day         |
| Leitz Total Station w/Data Collector .....  | 130.00/day         |
| Hand Laser Range Finder .....   | 15.00/day          |
| Range Azimuth System.....   | 310.00/day         |
| Odom Hydrotrack Sounder .....   | 165.00/day         |
| Heave, Pitch, Roll Compensator .....  | 215.00/day         |
| Odom ES3PT Multibeam .....  | 600.00/day         |
| Speed of Sound Velocity Meter .....   | 63.00/day          |
| Hypack/DredgePack Navigation System .....   | 260.00/day         |
| Hypack/Hysweep .....  | 260.00/day         |
| Nortek AWAC ADCP high frequency deepwater wave height, direction and current profiler .....       | 5,000.00/month *   |
| Nortek Aquadopp ADCP low frequency shallow water wave height, direction and current profiler..... | 2,900.00/month *   |
| Nortek Storm Software for wave and current data processing .....                                  | 50.00/day          |
| Primer statistical package.....   | \$200/project      |
| X-STAR CHIRP 512i Seismic Profiling System.....   | 1,150.00/day       |
| Seismic Profiler Thermal Printer .....  | 130.00/day         |
| Sonar Wizard Map Seismic Data Processing Package .....  | 155.00/day         |
| Edgetech 4200 FS Sidescan Sonar System .....  | 695.00/day         |
| Sonar Wizard Map Sidescan Data Processing Package.....  | 155.00/day         |
| Geometric G-881 Magnetometer .....  | 215.00/day         |
| Schonstedt GA-52B Magnetic Locator.....   | 30.00/day          |
| Jet Probe with Pump .....   | 55.00/day          |
| Underwater Tide Gauge.....  | 175.00/day         |
| Nikon Level/Tripod/Rod .....  | 65.00/day          |
| PC PowerPoint Projector .....   | 50.00/day          |
| Lietz Handheld Level.....   | 10.00/day          |
| Optical Reading Compass.....  | 10.00/day          |
| Garmin Handheld GPS .....   | 10.00/day          |
| Turbidimeter.....   | 38.00/day          |

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**APTIM ENVIRONMENTAL & INFRASTRUCTURE, INC.**  
**PINELLAS COUNTY, FLORIDA**  
**RFP CONTRACT NO. 167-0486-CN (RW)**

|  |              |
|--|--------------|
| SCUBA Tanks (Nitrox) .....                   | 19.00/day    |
| Digital Camera .....                         | 10.00/day    |
| Underwater Camera .....                      | 32.00/day    |
| Underwater Camera W/Strobes.....             | 75.00/day    |
| Underwater Seadrop Integrated Camera.....    | 30.00/day    |
| Underwater Video Camera.....                 | 115.00/day   |
| GPS Integrated Underwater Video Camera ..... | 435.00/day   |
| Underwater Scooter.....                      | 50.00/day    |
| Sieve Analysis.....                          | 75.00/sample |
| Carbonate Analysis .....                     | 65.00/sample |
| Monuments .....                              | 28.00/each   |
| Survey Disk.....                             | 15.00/each   |
| Dry Suit.....                                | 15.00/day    |
| Ponar Sampler.....                           | 30.00/day    |
| Microscopes .....                            | 20.00/day    |
| Mobile Telephone .....                       | 10.00/day    |
| Penetrometer .....                           | 55.00/day    |
| Generator.....                               | 60.00/day    |

\* ADCP monthly cost may be pro-rated for shorter periods of use

**III. SCUBA DIVING SERVICES**

**Rate**

Equipment & Insurance ..... \$75/diver/day \*\*

\*\* Charge in addition to normal hourly rates for personnel listed on Page 1.

**IV. NUMERICAL MODELS**

**Rate**

|   |                 |
|---|-----------------|
| ADCIRC Tidal Circulation Model .....                        | \$1,000/project |
| BOUSS 2D WAVE - Wave Refraction/Diffraction Model.....      | \$1,000/project |
| MIKE21- NSW Spectral Wave Transformation Model .....        | \$2,000/project |
| MIKE21- HD 2D Current Simulation Model.....                 | \$2,000/project |
| MIKE21- ST 2D Sediment Transport Model.....                 | \$2,000/project |
| DELFT 3D WAVE - SWAN Wave Refraction/Diffraction Model..... | \$1,000/project |
| DELFT 3D FLOW - 2D Hydrodynamic Model .....                 | \$2,200/project |
| DELFT 3D MORPHO - Morphodynamic Model.....                  | \$3,000/project |
| DELFT 3D WAQ – Water Quality Model .....                    | \$2,000/project |