

SURVEYING & MAPPING SERVICES WORK ORDER 07

This Work Order Number 07 is entered into as of this ____ day of _____, _____, pursuant to that certain Continuing Contract Agreement, dated October 4, 2022, ("Agreement"), by and between INDIAN RIVER COUNTY, a political subdivision of the State of Florida ("COUNTY") and Morgan & Eklund, Inc. ("Consultant").

The COUNTY has selected the Consultant to perform the professional services set forth on Exhibit A (Scope of Work), attached to this Work Order and made part hereof by this reference. The professional services will be performed by the Consultant for the mutually agreed upon lump sum or maximum amount not-to-exceed professional fee. Any additional costs must be approved in writing, and at a rate not to exceed the prices set forth in Exhibit B of the Agreement (Rate Schedule) for RFQ 2022064, made a part hereof by this reference. The Consultant will perform the professional services within the timeframe more particularly set forth in Exhibit A (Time Schedule), attached to this Work Order and made a part hereof by this reference all in accordance with the terms and provisions set forth in the Agreement. Pursuant to paragraph 1.4 of the Agreement, nothing contained in any Work Order shall conflict with the terms of the Agreement and the terms of the Agreement shall be deemed to be incorporated in each individual Work Order as if fully set forth herein.

IN WITNESS WHEREOF, the parties hereto have executed this Work Order as of the date first written above.

CONSULTANT:

By: _____
Name: _____
Title: _____

BOARD OF COUNTY COMMISSIONERS OF
INDIAN RIVER COUNTY:

By: _____
Joseph E. Flescher, Chairman

BCC Approval Date: _____

By: _____
John A. Titkanich, Jr., County Administrator

Approved as to Form and Legal Sufficiency:

By: _____
Jennifer W. Shuler, County Attorney

Ryan L. Butler, Clerk of Court and Comptroller

Attest: _____
Deputy Clerk

(SEAL)



Exhibit A

Morgan & Eklund, Inc.

4909 US Highway 1
Vero Beach, Florida 32967

Phone: 772-388-5364
Fax: 772-388-3165

December 2, 2024

Indian River County
Natural Resources Department - Coastal Division
Attn: Quintin Bergman, Coastal Resource Manager
1801 27th Street
Vero Beach, FL 32960

RE: 2025 Winter and Summer Semi-Annual Indian River County Coastal Monitoring Surveys; Onshore/Offshore Profiles along FDEP Range Lines R-15 to R-119

Dear Quintin:

Morgan & Eklund, Inc. (M&E) is pleased to provide you with the following proposal to furnish professional land and hydrographic survey services for the above referenced project.

Scope of work will be as follows:

- **Task 1: 2025 Winter Profiles, 65 Lines** (*Jan/Feb*)
 - Task 1a) Sector 4 (R55 to R70) - Sector 4 is being constructed this winter window. Please make a note on the profiles when data includes a new dune or active construction.
 - Task 1b) Sector 5 (R71 to R91)
 - Task 1c) South County (R92 to R119)

- **Task 2: 2025 Summer Profiles, 105 Lines** (*June/Aug*)
 - Task 2a) Sector 3 (R15 to R60)
 - Task 2b) Sector 4 (R61 to R65)
 - Task 2c) Sector 5 (R66 to R91)
 - Task 2d) South County (R92 to R119)

Onshore/offshore profile lines begin with the recovery of site control monumentation and establishing 2 temporary control points along each profile alignment using GNSS RTK. Crews use Automatic Levels to conduct level loops that begin and close on these temporary control points. Hydrographic survey elevations are used to verify against tidal measurements, relative to site control.

The upland portion of the profile is conducted landward of the MLLW using GNSS RTK equipment where site conditions allow. If the upland area is heavily vegetated, an Automatic

Level and survey rod, with the aid of Azimuth stakes and a laser electronic distance measurement device provide infill.

The wade portion of the profile is also performed using an Automatic Level, survey rod, and laser and data is collected from the beach berm out to approximately -8' or as the ocean conditions allow.

The offshore portion of each profile is collected using a survey vessel equipped with Hypack hydrographic collection software along with GNSS RTK positioning, inertial motion compensation, and Sonar equipment, typically to a distance of 3000' offshore. Sound velocity and Bar Check calibrations are conducted at the beginning and conclusion of daily operations.

The three overlapping data sets are then displayed and analyzed in plan and/or profile view as a means of merging the data sets and conducting quality assurance. Merged alignment data are then plotted in profile view along with historic profile data as a final quality assurance procedure prior to the final product being prepared.

All data collected will be in accordance with the FDEP-approved Physical Monitoring Plan. M&E will provide the County with beach profile data in ASCII file format together with AutoCAD drawings signed by the surveyor. We will also provide FDEP submittal package.

Our prices will be as follows:

Task 1: 2025 Winter Profiles

| | |
|---|--------------|
| Chief Surveyor 6.5 hours @ \$171/hr..... | \$ 1,111.50 |
| Senior Project Manager 4 hours @ \$132/hr..... | \$ 528.00 |
| Senior Survey Computer Technician 32 hours @ \$103/hr..... | \$ 3,296.00 |
| Project Manager 17 hours @ \$108/hr..... | \$ 1,836.00 |
| Assistant Project Manager 3 hours @ \$85/hr | \$ 255.00 |
| Hydrographic Lead Surveyor 25.5 hours @ \$107/hr..... | \$ 2,728.50 |
| Survey Technician (Boat) 25.5 hours @ \$82/hr..... | \$ 2,091.00 |
| Three Man Survey Crew 102 hours @ \$180/hr..... | \$ 18,360.00 |

| | |
|--|---------------------|
| 26' Parker Survey Boat 2.5 days @ \$600/day..... | \$ 1,500.00 |
| Applanix POS WaveMaster 2.5 days @ \$500/day..... | \$ 1,250.00 |
| Single Beam Digital Fathometer 2.5 days @ \$100/day..... | \$ 250.00 |
| Hypack Navigation Software & Computer 2.5 days @ \$120/day..... | \$ 300.00 |
| Trimble RTK 10 days @ \$450/day..... | \$ 4,500.00 |
| Beach UTV 10 days @ \$100/day..... | \$ 1,000.00 |
| Total Task 1..... | \$ 39,006.00 |

Task 2: 2025 Summer Profiles

| | |
|---|--------------|
| Chief Surveyor 8.5 hours @ \$171/hr..... | \$ 1,453.50 |
| Senior Project Manager 5 hours @ \$132/hr..... | \$ 660.00 |
| Senior Survey Computer Technician 45 hours @ \$103/hr..... | \$ 4,635.00 |
| Project Manager 20 hours @ \$108/hr..... | \$ 2,160.00 |
| Assistant Project Manager 3.5 hours @ \$85/hr..... | \$ 297.50 |
| Hydrographic Lead Surveyor 37.5 hours @ \$107/hr..... | \$ 4,012.50 |
| Survey Technician (Boat) 37.5 hours @ \$82/hr..... | \$ 3,075.00 |
| Three Man Survey Crew 173 hours @ \$180/hr..... | \$ 31,140.00 |
| 26' Parker Survey Boat 4.5 days @ \$600/day..... | \$ 2,700.00 |

| | |
|--|---------------------|
| Applanix POS WaveMaster 4.5 days @ \$500/day..... | \$ 2,250.00 |
| Single Beam Digital Fathometer 4.5 days @ \$100/day..... | \$ 450.00 |
| Hypack Navigation Software & Computer 4.5 days @ \$120/day..... | \$ 540.00 |
| Trimble RTK 17.5 days @ \$450/day..... | \$ 7,875.00 |
| Beach UTV 17.5 days @ \$100/day..... | \$ <u>1,750.00</u> |
| Total Task 2..... | \$ 62,998.50 |
| TOTAL FIXED PRICE FEE TASKS 1 & 2...\$ | 102,004.50 |

As always, Morgan & Eklund, Inc. is looking forward to working with you and Indian River County on this project.

Sincerely,

David W. Coggin, PSM
Vice President

DWC:dmc

Billing: Each task will be invoiced monthly based on percentage completed