



AMENDMENT TO AGREEMENT BETWEEN COUNTY AND CONSULTANT

THIS AMENDMENT #1 made and entered into this 21st day of May, 2019, by and between **MARTIN COUNTY**, a political subdivision of Florida, (Hereinafter "County"), 2401 SE Monterey Road, Stuart, Florida 34996 and **Captec Engineering, Inc.** (Hereinafter "Consultant"), 301 NW Flagler Avenue, Stuart, FL 34994

WITNESSETH

WHEREAS, the County and Consultant entered into an Agreement RFQ2017-2899 dated January 24, 2017 to provide professional services related to the Savannas Regional Restoration in the amount of \$291,500.00; and

WHEREAS, the parties desire to amend the Agreement to provide for additional engineering services more specifically described in Exhibit A attached; and

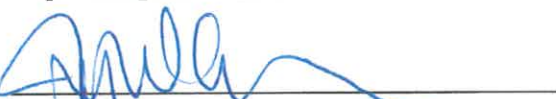
WHEREAS, the County and Consultant have agreed to a cost for these services of \$121,000.00.

NOW THEREFORE, in consideration of the promises, covenants, and mutual benefits which all accrue to the parties hereto in carrying out the terms of this Agreement, it is mutually covenanted and agreed as follows:

1. The Agreement is hereby amended to include services outlined in Exhibits attached, and
2. The new total contract value is \$412,500.00; and
3. All remaining terms and conditions of this Agreement not specifically amended herein shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment to the Agreement as of the date first set forth above.

Captec Engineering, Inc.



Joseph W. Capra, P.E.
President

MARTIN COUNTY, FLORIDA

Taryn Kryzda
County Administrator

**APPROVED AS TO FORM AND LEGAL
SUFFICIENCY BY COUNTY ATTORNEY**



EXHIBIT A - SCOPE OF SERVICES

SAVANNAS SOUTH WEIR PROJECT

Martin County Project No. 1743.12

Contract Amendment No. Task Order #



PREFACE

The professional services necessary for this Martin County CIE/CIP Project will be consistent with the adopted goals, objectives and programs of the Martin County Board of County Commissioners (MCBCC)(CLIENT).

SCOPE OF WORK

PROJECT DESCRIPTION

The Savannas Preserve State Park and associated watershed encompasses 5,200+ acres extending from Fort Pierce in St. Lucie County to Jensen Beach in Martin County. The basin area is influenced by over 22,000 acres. In January 2017, CAPTEC Engineering, Inc. (CONSULTANT) was selected for the Savannas Regional Restoration Project that focused on 1) alleviating community flooding 2) optimizing water management operations, 3) improving natural habitats and 4) improving water quality in the Savannas and the associated Indian River Lagoon watershed

Phase I of this restoration project built an existing condition hydrological model, in an effort to identify and define areas deficient in typical Level of Service standards; delineated hydrologic watershed and sub-basins; identified operational schedules and developed alternatives for operational flexibility; defined habitat restoration, hydrologic and water quality needs; provided model simulations on proposed scenarios for improvements to the regional system; and prepared preliminary cost estimates and evaluations for each alternative plan. The Savanna Regional Restoration Project – Phase 1 report was prepared and provided to Martin County in April 2018.

As part of the Savanna Regional Restoration Project – Phase 1 report three outfalls from the Savannas Preserve State Park (SPSP) were identified. The north outfall, in Ft. Pierce, and the middle outfall, Hogpen Slough in Port St. Lucie, are both controlled outfalls to the Indian River Lagoon and the North Fork of the St. Lucie River, respectively. However, the southern outfall in Jensen Beach is uncontrolled, through triple box culverts into Warner Creek, eventually discharging into the St. Lucie River. The Savannas South Weir (Project) was identified as a proposed improvement in the report, providing restoration of water levels in the southern Savannas and reducing discharges into Warner Creek.

The services to be provided by CONSULTANT for this project include Civil Engineering design and permitting, environmental, geotechnical, structural and telemetry control services associated with the proposed weir improvements. CONSULTANT will prepare construction drawings, technical specifications, bidding documents and cost estimates for the Project.

SPECIFIC TASK DESCRIPTIONS

TASK 1: PRELIMINARY ENGINEERING DESIGN

CONSULTANT will provide a field review of surface conditions of the existing box culvert headwall structures, review site conditions for weir alignment, and provide coordination with sub-consultants, Martin County staff and Savanna Preserve State Park (SPSP) staff. CONSULTANT will provide the necessary utility coordination for the proposed weir.

CONSULTANT will evaluate vehicular accessibility issues and provide recommendations for vehicular / maintenance access to areas adjacent to the structures. CONSULTANT will assist in coordination with SPSP and County staff for access to the site. Areas for access, permanent and temporary construction easements will be provided to COUNTY for use in obtaining the necessary easements. Preparation of sketches, legal descriptions and easement documents are assumed to be provided by Martin County. It is anticipated that Martin County will perform the easement acquisition through FDEP Florida State Parks. The agreed upon access routes and easement areas will be included on the construction plans.

CONSULTANT will review and update the existing Savannas Regional Restoration model, and evaluate and optimize the operable, fixed-crested weir design. CONSULTANT will provide preliminary design and sketches of the weir structure for CLIENT's review and approval prior to moving forward with final design.

CONSULTANT will coordinate with the following Sub-Consultants for services to be provided for final engineering.

TASK 1A: SURVEYING SERVICES (Allowance)

CONSULTANT will utilize the 5' cell Digital Elevation Model developed from Martin County's 2016 Lidar Data during the Savannas Regional Restoration - Phase 1 project that encompasses the proposed weir site, and also the topographic survey for Warner Creek prepared by Martin County Surveying Division. CONSULTANT does not anticipate the need for additional topographic information. If additional survey services are needed CONSULTANT will inform CLIENT of such needs, as early in the process as possible, and request the survey service be provided by Martin County.

In the event that Martin County would rather have the additional survey services provided by CONSULTANT, a Survey Allowance has been included herein. CONSULTANT will coordinate with Surveyor to provide limited topographic survey information under the direction of a Florida Registered Surveyor and Mapper and in accordance with Florida Administrative Code, Standards of Practice and as defined in items 5J-17.052 establishing minimum technical standards for surveying in the State of Florida. An allowance is established for obtaining survey of the following items:

- Provide detailed topographic survey of the weir control structure site north of Jensen Beach Boulevard;
- Provide detailed survey of the triple culverts and headwalls at Warner Creek and Jensen Beach Boulevard.
- Survey wetland delineation and ordinary or mean high water elevation flags placed by Environmental Consultant;
- Provide detailed survey of the low area of Jensen Beach Boulevard, located just east of Warner Creek.
- Provide sketches and legal descriptions for permanent and temporary construction easements.

TASK 1B: ENVIRONMENTAL SERVICES

CONSULTANT will coordinate with an Environmental Consultant for environmental services for the project. Tasks to be completed by the Environmental Consultant are briefly outlined below.

Wildlife Assessment Report

The Environmental Consultant will conduct a protected species survey on the referenced site. Environmental Consultant will conduct a preliminary systematic survey for protected species in accordance with Florida Fish and Wildlife Conservation Commission (FFWCC) Guidelines. Environmental Consultant will record all observations of listed protected species and features that may indicate species presence. Physical features may include, but are not limited to, tree markings, burrows, tracks, nests, scat and cavity trees.

Sub-Consultant will conduct a 100% gopher tortoise (*Gopherus polyphemus*) survey of the above -referenced project site. Environmental Consultant will conduct a preliminary systematic survey for the gopher tortoise in accordance with Florida Fish and Wildlife Conservation Commission (FFWCC) Guidelines. Environmental Consultant will record all observations of gopher tortoise species and features that may indicate species presence. All gopher tortoise burrows will be flagged, numbered and identified as to activity. Each gopher tortoise burrow will be located with a hand-held GPS unit. Gopher tortoise burrows will be located on a Martin County aerial photograph of the site. (GPS coordinates are approximate and are not a survey.)

Environmental Consultant will prepare a Wildlife Assessment Report (WAR) report based on field data and literature research. The report will discuss the environmental issues associated with the project and may be used to address local, State and Federal environmental permitting issues. The WAR will include the following:

- *Vegetation Survey (FLUCFCS)*
Environmental Consultant will conduct a systematic survey of vegetation using the *Florida Land Use, Cover and forms Classification System (FLUCFCS), A technical Report*. The vegetative community descriptions will be based on filed survey observations, SCS soil maps and aerial photograph interpretation.
- *SCS Soils Map*
Environmental Consultant will map all project soils according to the *Soil Survey of Martin County Area, Florida, United States Department of Agriculture, Soil Conservation Service*.
- *Historical Archaeological Resources*
Environmental Consultant will coordinate historical and/or archaeological resources with the Florida Department of State, Division of Historical Resources, State Historical Preservation Officer (SHPO). This task does not include a professional archaeological/historical survey.

SFWMD Permitting

Environmental Consultant will prepare and submit the necessary environmental information and assist the CONSULTANT with permit applications to SFWMD. Environmental Consultant will attend one pre-application meeting with SFWMD to confirm permitting requirements and processes. Environmental Consultant will delineate on-site wetlands and conduct on-site review of wetlands with SFWMD staff, determine Ordinary High-Water Line (OHW) in each wetland, conduct a Uniform Mitigation Assessment Methodology (UMAM) survey and prepare data forms, maps, figures and photos for submittal. UMAM scores determine a numerical value for the functions and values of the existing wetlands. The UMAM scores can be used to determine what type of mitigation will be required for

the project site. Environmental Consultant will reply to one (1) Request for Additional Information (RFI).

It is anticipated that the benefits of this project will exceed the impacts to the on-site wetlands, therefore will not require any mitigation. Not included in the Environmental Consultant's Scope of Work are: a Cumulative Impacts Analysis / Mitigation Basin Analysis, and a Mitigation Maintenance and Monitoring Plan associated with SFWMD permitting.

ACOE Permitting

Environmental Consultant will prepare and submit the necessary environmental information and assist the CONSULTANT with permit applications to the ACOE. Environmental Consultant will attend one pre-application meeting with the ACOE to confirm permitting requirements and processes. Environmental Consultant will delineate on-site wetlands and conduct on-site review of wetlands with ACOE staff, and conduct a Uniform Mitigation Assessment Methodology (UMAM) survey and prepare data forms, maps, figures and photos for submittal, and coordinate preliminary historical and/or archaeological resources with the ACOE professional archaeologist. Environmental Consultant will reply to one (1) Request for Additional Information (RFI).

It is anticipated that the benefits of this project will exceed the impacts to the on-site wetlands, therefore will not require any mitigation. Not included in the Environmental Consultant's Scope of Work are: an Alternative Site Analysis, Avoidance and Minimization report, Public Interest Criteria report, a 404(b)(1) Compliance report, Wetland Evaluation assessments (UMAM) or (WRAP), a Cumulative Impacts Analysis / Mitigation Basin Analysis, a Cultural Resource Assessment Survey (CRAS) or a Mitigation Maintenance and Monitoring Plan associated with ACOE permitting.

If the agencies require additional permitting, including but not limited permitting associated with mitigation; or permitting other than an Individual ERP and ACOE Nationwide permit, then a modification to the Environmental Consultant's Scope of Work may be necessary.

TASK 1C: GEOTECHNICAL SERVICES

CONSULTANT will coordinate with a Geotechnical Engineer to perform a limited subsurface exploration, laboratory testing, engineering analysis and prepare an evaluation report to identify soil types, characteristics and parameters to make recommendations for the weir design and construction. These services are anticipated to include:

- One (1) Standard Penetration Test (SPT) borings (ASTM D1586) to depths of 50 feet below existing ground surface;
- Two (2) hand auger borings (ASTM D1452) to depths of 5-7 feet below the existing ground surface;
- Visual classification and laboratory testing for classification and determination of strength and compressibility characteristics.
- Engineering services and report preparation

TASK 1D: STRUCTURAL SERVICES

CONSULTANT will coordinate with a State of Florida registered Professional Structural Engineer to provide a structural evaluation and design of the sheet pile and concrete for the

proposed weir. The Structural Engineer will evaluate the site, provide construction documents, plans, elevations and details.

TASK 1E: ELECTRICAL SERVICES

CONSULTANT will coordinate with an Electrical Engineer for a site visit to provide a review and evaluation of the existing electrical power supply. Electrical Engineer will provide design plans and documents for a power supply system in order to ensure operations of all gates, at the same time. Electrical Engineer will provide electrical riser diagrams and electrical load calculations for new equipment. Written equipment and material specifications will be provided.

Plans will reflect that electrical engineer / electric code compliance items shall be provided by the future contractor responsible for project construction.

TASK 2: FINAL ENGINEERING DESIGN

Upon CLIENT approval of the preliminary weir design, CONSULTANT will provide civil design site plans, including electrical and fiber optic supply plan, dewatering and erosion control plans, structural plans, cross sections, details, including civil and sluice gate details, SCADA schematic diagrams for monitoring / control and gate actuator panel , general notes and specifications for the sheet piling, sluice gates, installation of electronically controlled actuators, water level recorders, and security fencing.

The new structure will be designed with three operable sluice gates, with electric actuators, controls, water level sensors, observation camera, lighting, handrailing and fencing will be included. Plans will include the design and details for the proposed sheet pile weir, concrete cap and collar.

CONSULTANT will coordinate with the CLIENT for recommendations and assistance in selecting hardware, software and equipment for the Supervisory Control and Data Acquisition (SCADA) system. CONSULTANT will coordinate with CLIENT for connections to the existing Martin County fiber optic network system.

TASK 3: PERMITTING SERVICES

In 2018, CONSULTANT prepared the Savannas Regional Restoration Project – Phase 1 Water Management & Natural Systems Evaluation Report, for the COUNTY which consisted of a number of improvements to provide improved regional flood protection, provide water quality treatment and enhance the ecological communities within the Savannas. This report will be the basis for the project report to assist in permitting services.

CONSULTANT anticipates that a new Individual Environmental Resource Permit and new Nationwide permit application will be required by SFWMD and ACOE, respectively. CONSULTANT will prepare and submit the necessary permit applications / modifications to SFWMD and ACOE. CONSULTANT and Environmental Consultant will attend one pre-application meeting, each, with South Florida Water Management District and ACOE to confirm permitting requirements and processes. If agencies require additional permitting or permitting other than an Individual ERP and ACOE Nationwide permitting, then a modification to this Scope of Work may be necessary.

It is the opinion of the CONSULTANT and Environmental Consultant that the project site does not meet the definition or requirements of sovereign submerged lands, and therefore,

Authorization to Use State-Owned Submerged Lands application will not be necessary and not included herein. In the event that authorization is required, an amendment to this agreement will be needed.

CONSULTANT anticipates that an Access/Driveway and Drainage permits will be required by FDOT. CONSULTANT will prepare and submit the necessary permit applications to FDOT. CONSULTANT will attend one pre-application meeting with FDOT to confirm permitting requirements and processes. If FDOT require additional permitting or permitting other than an Access/Driveway and Drainage permits, then a modification to this Scope of Work may be necessary.

A SFWMD Temporary Construction Dewatering Permit will be required and an application will be prepared and submitted.

CONSULTANT will start the permitting process upon completion of the construction plans. CONSULTANT will include normal agency coordination and additional information responses to each of the regulatory agencies after the initial submittal.

TASK 3B: PERMITTING - MITIGATION AND MONITORING (ALLOWANCE)

CONSULTANT anticipates that the estimated functional gains to the wetlands and ecology within the SPSP from the Effects of the proposed weir will greatly exceed the estimated functional losses due to the permanent construction impacts. For this reason, CONSULTANT does not anticipate mitigation and monitoring will be required. In the event that the permitting agencies do require mitigation and monitoring an allowance for these services have been included herein and the scope includes:

SFWMD Mitigation and Monitoring

CONSULTANT and Environmental Consultant will prepare a Cumulative Impacts Analysis for out-of-basin purchase of wetland credits associated with impacts to on-site SFWMD wetlands. CONSULTANT and Environmental Consultant will coordinate the Cumulative Impacts Analysis / Mitigation Basin Analysis with County and SFWMD staff.

CONSULTANT and Environmental Consultant will coordinate and prepare a Mitigation (or Preserve Area) Monitoring and Maintenance Plan, according to SFWMD regulations and standards.

ACOE Mitigation and Monitoring

CONSULTANT and Environmental Consultant will prepare an Alternative Site(s) Analysis of reasonable, available parcels located within a 5-mile radius of the site, and will coordinate the Alternative Site(s) Analysis with COUNTY and ACOE staff. CONSULTANT and Environmental Consultant will need input from COUNTY staff for this task.

CONSULTANT and Environmental Consultant will prepare an Avoidance and Minimization Documentation Report to include all maps and figures to be submitted with the ACOE application and coordinate the Avoidance and Minimization Documentation Report with COUNTY and ACOE staff.

CONSULTANT and Environmental Consultant will prepare a Public Interest analysis to include all maps and figures to be submitted with the ACOE application and coordinate the Public Interest Analysis Report with COUNTY and ACOE staff.

CONSULTANT and Environmental Consultant will prepare a 404(b)(1) Compliance Report to include all maps and figures to be submitted with the ACOE application and coordinate the 404(b)(1) Compliance criteria with COUNTY and ACOE staff.

CONSULTANT and Environmental Consultant will prepare a Cumulative Impacts Analysis for out-of-basin purchase of wetland credits associated with impacts to on-site ACOE wetlands. CONSULTANT and Environmental Consultant will coordinate the Cumulative Impacts Analysis / Mitigation Basin Analysis with County and ACOE staff.

TASK 4: BIDDING SERVICES

Upon receipt of all indicated permit approvals, CONSULTANT will incorporate COUNTY's and any permit agencies' final review comments, and finalize the permitted plans, labeling them "Bid Plans and Specifications".

CONSULTANT will provide bid plans, technical specifications, bid quantities, and cost estimate for CLIENT'S bidding purposes. CONSULTANT will attend the pre-bid meeting and assist in answering Bidder's questions and issuing any addendums.

Upon completion of the Bid phase, CONSULTANT will prepare "Approved for Construction" plans, incorporating comments received during the Bid phase. CONSULTANT will attend the pre-construction meeting.

TASK 5: CONSTRUCTION ADMINISTRATION/ENGINEERING INSPECTION SERVICES

This proposal does not include any construction engineering inspection (CEI) services at this time, however; CONSULTANT would be pleased to provide a cost for these services, upon request by CLIENT, once the scope of the proposed project is more defined.

The Construction Administration Services would include attending a pre-construction meeting; limited inspection services, and limited attendance at progress meetings, review and approval of shop drawings, review of as-builts, final certifications of completeness to CLIENT and permitting agencies.

TASK 6: ADDITIONAL SERVICES

CONSULTANT would be pleased to provide any other additional services requested by CLIENT in accordance with the enclosed Fee Schedule. Additional services will not be performed unless specifically requested by CLIENT and an addendum to this agreement is executed.

EXHIBIT B – TIME OF PERFORMANCE

Proposed schedule for design, permitting and bid doc preparation of the work is outlined based on regulatory agency approvals and Martin County actions.

Tasks – Descriptions	Time of Performance
Task 1: Preliminary Engineering Design	45 days from NTP
Task 1A: Surveying Services (Allowance)	30 days from NTP*

Task 1B: Environmental Services	30 Days from NTP
Task 1C: Geotechnical Services	30 Days from NTP
Task 1D: Structural Services	30 Days from completion of Task 1
Task 1E: Electrical Services	30 Days from completion of Task 1
Task 2: Final Engineering	45 Days from completion of Task 1
Task 3: Permitting Services	120 Days from completion of Task 2
Task 3B: Mitigation/Monitoring (Allowance)	180 Days from completion of Task 2
Task 4: Bidding Services	45 Days from completion of Task 3
Task 5: CEI Services	Not Included
Task 6: Additional Services	Not Included

** Initial Survey based on direction from Martin County. Ongoing coordination and services throughout project.*

EXHIBIT C - TASK FEE SCHEDULE

Tasks – Descriptions	Fees
Task 1: Preliminary Engineering Design	\$15,000
Task 1A: Surveying Services (Allowance)	\$5,000
Task 1B: Environmental Services	\$14,500
Task 1C: Geotechnical Services	\$5,000
Task 1D: Structural Services	\$9,000
Task 1E: Electrical Services	\$4,000
Task 2: Final Engineering	\$29,500
Task 3: Permitting Services	\$19,500
Task 3B: Mitigation/Monitoring (Allowance)	\$12,500
Task 4: Bidding Services	\$5,500
Task 5: CEI Services	TBD
Task 6: Additional Services	TBD
Reimbursable Expenses	\$ 1,500
Totals	\$121,000

Notes for task authorizations:

1. CLIENT is responsible for all direct / reimbursable expenses such as reproduction, etc. See the attached Exhibit D, Reimbursable Expense Schedule.
2. CONSULTANT will utilize existing hydrologic studies for this effort and assumes no significant adjustment to the provided models will not be required.


This Agreement is based on the following assumptions:

1. This project will be designed and permitted one time.
2. CLIENT is responsible for all direct/reimbursable expenses such as reproduction, deliveries, etc. See the attached Reimbursable Expense Schedule Exhibit D.

MARTIN COUNTY will furnish the following items:

1. Any existing water and sewer system maps, fiber optic / ITS maps, paving and drainage plans, and record drawings within the project area.
2. All existing easement and right-of-way information and coordination services. Martin County will provide Title Searches as needed and obtain any additional right of way or easements required for construction.
3. Preparation of public notices, advertisements, mailing lists and postage.
4. Existing LIDAR data for the project area, as made available.
5. COUNTY is responsible for all regulatory agency application fees associated with this project which may include, but are not limited to: SFWMD ERP and WU, ACOE and FDOT, etc.

As to **CONSULTANT**
CAPTEC Engineering, Inc.



Joseph W. Capra, P.E.
President

Dated: April 2, 2019

As to **CLIENT**

Martin County Public Works

Dated:_____

EXHIBIT D

Principal / Expert Witness.....	\$ 190.00/hour
PE / Construction Director	\$ 150.00/hour
PE / Quality Control Manager.....	\$ 150.00/hour
PE / Sr. Project Manager	\$ 135.00/hour
PE / Construction Project Manager.....	\$ 135.00/hour
Project Design Manager	\$ 120.00/hour
Construction Project Manager	\$ 110.00/hour
Project Design Engineer/ EI.....	\$ 110.00/hour
Assistant Project Designer	\$ 100.00/hour
Project Design Engineer.....	\$ 95.00/hour
Field Representative/Inspector	\$ 90.00/hour
Civil Design Technician	\$ 85.00/hour
Office Manager	\$ 65.00/hour
Project Coordinator	\$ 55.00/hour

REIMBURSABLE EXPENSE SCHEDULE

Reimbursable Expense	Actual/ Estimated Cost	Cost
Mileage	Actual	\$.325/mile
Tolls	Actual	varies
Overnight Deliveries	Estimated*	Letter: \$20 Pak: \$25 Tube: \$30 Box: \$35
Printing (in-house): B/W Xeroxing	Actual	\$.05 per page
Color:		
Letter		\$.25 per page
Legal		\$.50 per page
Ledger		\$1 per page
Blueprints	Actual	\$2.00 per sheet
Color	Actual	\$4.00 per sheet
Half-size B/W Blueprints	Actual	\$.50 per sheet
Half-size Color Blueprints	Actual	\$1.50 per sheet
Mylars	Actual	\$5.00 per sheet
Printing (outside source)	Actual	
CD	Actual	\$1/ea.

*Actual cost depends upon package weight.