

PORT ST. LUCIE CITY COUNCIL
AGENDA ITEM REQUEST

COUNCIL ITEM 13g
DATE 5/14/12

Meeting Date: May 14, 2012

Public Hearing Ordinance Resolution Motion

Item: Contract #20100053 Amd #1 Crosstown Parkway Extension Mitigation services, add Phase II

Recommended Action:

Approve Amendment #1 to Contract #20100053 with American Consulting Engineers of Florida, LLC to add Phase II for the completion of the design and permitting of the proprietary mitigation for the Crosstown Parkway Extension Mitigation Services for a total of \$694,878.38. The work is to be completed within 365 calendar days. Total contract with this amendment is \$1,335,305.38 and a total of 1,451 calendar days.
All Terms, Conditions, and Addenda in Master Contract #20070049 shall apply.

Exhibits: Department memo attached yes

Copies of the Change Order

Summary Explanation/Background Information: This Amendment will allow the Engineer to complete the design and permitting of the proprietary mitigation projects for the Crosstown Parkway Extension. This phase of the project will incorporate the initial field investigations, meeting agreements, and schematics into the final construction documents, complete permitting, tidal data analysis, monitoring of water quality and other areas. American is familiar with the project as the Engineer for Phase I. American is also cognizant of the City's goals and timelines and this knowledge and the work already completed on Phase I will expedite the project to meet the requirements of the Memorandum of Understanding between the City and the Florida Department of Environment Protection.

Purchase () is (X) is not a replacement

Purchase (X) was budgeted () was not budgeted.

Total Amendment Expense \$694,878.38

Department requests expenditure from the following:

Fund	314	Third River Crossing Fund
Cost Center	4105	Road & Street Facility-Engr. Oper.
Object Code	568813	CIP Professional Services
Project	22004	Crosstown Parkway, Segment 1

Director of OMB concurs with award:  City Manager concurs with award: 

Department requests _____ minutes to make a presentation.

Submitted by: Patricia Roebling, PE

Title: City Engineer

Date Submitted: 5/7/12

RECEIVED

MAY 10 2012



"A City for All Ages"

CITY OF PORT ST. LUCIE

Engineering Department

Accredited Agency – American Public Works Association

MEMORANDUM

To: Cheryl Shanaberger – Deputy Director of OMB (via electronic submittal)

Thru: Patricia Roebling, P.E. – City Engineer

From: Roxanne M. Chesser, P.E., Civil Engineer

Date: April 27, 2012

Re: Crosstown Parkway Extension - Proprietary Mitigation Services
Contract Number 20100053, Master Contract 20070049, Amendment 1
American Consulting Engineers of Florida, LLC

Attached, please find our request for Amendment 1 to the contract along with backup information from American Consulting Engineers of Florida, LLC (American) for professional engineering services on the Crosstown Parkway Extension Project. We are requesting authorization by the City Council for the City Manager to execute the Amendment as referenced above and as further described below.

Under the Memorandum of Understanding (MOU) between the City and the Florida Department of Environmental Protection (DEP), should a build alternative be selected, the City will construct proprietary mitigation projects. These projects will benefit the environment and enhance the public's opportunities for enjoying Florida's parks. In turn, DEP will acknowledge this work by allowing an easement across state lands for the Crosstown Parkway Extension.

This Amendment will allow the continuation of American's existing contract to complete the design and permitting of the Proprietary Mitigation Projects. This phase of the work will incorporate the initial field investigations, meeting agreements, and schematics into the final construction documents, complete the permitting, and complete the tidal data analysis, and monitoring (water quality, vegetation and biological) started under the previous phase.

In addition to having firsthand knowledge and experience with the agencies, monitoring and conceptual plans, American was instrumental with the creation and approval process of the MOU and the negotiations with the DEP. They are already familiar with the project and the City's goals and timelines. For these reasons, we respectfully recommend that the City obtain the services of American for the completion of the work.

Per the MOU, the City is responsible for a maximum expenditure of \$5.5M for the design, permitting, construction and inspection of the Proprietary Mitigation projects. This Amendment:

- Allows for the completion of the design and permitting of the proprietary mitigation project,
- Increases the contract price by \$694,878.38, and
- Extends the contract time by twelve (12) months.

Page 2 of 2

April 27, 2012

Crosstown Parkway Extension - Proprietary Mitigation Services

Contract Number 20100053, Master Contract 20070049, Amendment 1

American Consulting Engineers of Florida, LLC

The account number associated with this Change Order is 314-4105-568813-22004. Please schedule this Amendment for presentation at the next available City Council meeting. If additional documentation is needed, or if you have any questions, please do not hesitate to contact me.

Attachments

c: Dave Pollard – Director of OMB
Jesus Merejo – Director Utility Systems
Kimberly Graham, P.E. – Assistant City Engineer
Frank Knott – Project Manager
Sue Walsh – Manager Operations
Brian Mirson – American Consulting Engineers of Florida, LLC

s:\projects\crosstown parkway extension\2.0 studies\2.4 contracts\american\ace contract 20100053 for proprietary mitigation services\co4 - phase ii and iii of prop mitigation design\memo to omb.doc

Contract #20100053 Amendment #1

Contract #20100053 Amendment # 1

Date:

Contract Title: Mitigation Plan for Crosstown Parkway Extension Project
Amendment 1 : Phase II

Contractor's Name: American Consulting Engineers of Florida, LLC

Current Expiration: July 16, 2013
Amendment ending date is July 16, 2014

1. Amendment start date is _____ and ending date of _____, for a total of 365 calendar days.

The Phase II task as identified below will be completed within 365 calendar days. Final surveys for gopher tortoises will not be completed until 90 days prior to construction. Permits for the gopher tortoise relocation will be submitted immediately after the final survey. Thus, the schedule for the bid packages and survey and permitting for gopher tortoises is contingent on the project construction date

The following modifications to the Terms and Conditions contained in Contract/Agreement #20100053 between American Consulting Engineers of Florida, LLC, dated July 21, 2010, and the City of Port St. Lucie are hereby incorporated and made a part of that Contract.

All other terms and conditions of the original contract and/or Addenda apply except the Renewal Option will be omitted.

Scope of Work

Supplemental Services for Crosstown Parkway Extension Project Services for Phase II of the Proprietary Mitigation Plan Projects

Specific Scope: Design, Permitting and Bid Documents

This scope of services is for the preliminary and final design of four (4) tasks including: four water-quality improvements, Savannas Recreation Area Trail, Halpatiokee Canoe Launch replacement, and improvements to the existing Savannas Preserve State Park Education Center.

Phase II consists of preparing preliminary and final construction plans, drainage analyses, permitting, and preparation of bid documents and specifications.

Task 1: Water Quality Improvements

The water quality improvements shall be provided as outlined by the Florida Department of Environmental Protection (DEP), North Fork of the St. Lucie River Aquatic Preserve, dated August 2009, include: Otter Trail,

Riverplace Upstream, Site 5 West, and Evans Creek. The water quality improvements will be achieved by reconnecting oxbows and isolated floodplains and deepening the upstream and downstream ends of Evans Creek to improve flushing. Restoration efforts will include dredging shoals or berms, widening or deepening portions of the waterway, and other work identified by DEP.

1.1 Engineering and Drainage Design

The Engineer will formulate dredging design options for all four projects by incorporating the information analyzed in the previous task. Each design will be tailored to its specific location and function. The 60% plans shall include a key sheet, project layout sheet, plan view construction details, cross section construction details, stormwater pollution prevention plan, and planting plans, as well as miscellaneous details. All designs will be modified as needed to secure the required permits and comply with any permit requirements, such as erosion control. Final construction drawings will also include final drainage design, quantities, bid documents, and specifications for grading and/or culvert construction for each of the proposed improvement locations. The final plans shall include a key sheet, project layout sheet, plan view construction details, cross section construction details, stormwater pollution prevention plan, planting plans, as well as miscellaneous details. These plans will be provided in the format directed by the City.

This task will also include creating a comprehensive bid package that will include the technical specifications and design plans. This bid assistance will include all pertinent design specifications which will ensure that projects are constructed per design. The Engineer will review the bid in its entirety and will modify its contents to coincide with the desired construction results. All bid documents will be provided in the format directed by the City.

1.2 Structures Design

Due to the berm breach along Otter Trail, the existing trail will be disconnected. The Engineer will design a 6' timber boardwalk to connect the Otter Trail on either side. Structures services will include design calculations, construction plans, and production of bid documents and specifications for the proposed boardwalk.

1.3 Permitting

The Engineer will submit a separate permit application for each of the water quality improvement projects. Based on discussions with DEP and SFWMD, Evans Creek and Site 5 West could qualify for a Noticed General Permit under 40E-400.485 F.A.C. if DEP sends a memo to the Attorney General for the Secretary of the DEP approving the projects. The DEP will not commit to sending this memo until preliminary plans have been completed. Without the memo, a new General Permit will be required for both projects. The fee estimate assumes both projects will be permitted as a new General Permit. A new General Permit will also be required for the Riverplace Upstream project. A permit modification to Permit 56-014561-P will be required for Otter Trail. A sovereign submerged lands easement will be required for all four projects as part of the permit package.

This task also includes all the items required for permitting and mitigation including UMAMs and Rapanos forms. We anticipate these project requiring eight UMAMs and four Rapanos forms for existing conditions. Four additional UMAMs will be required for the post construction conditions to determine if mitigation will be required.

Gopher tortoise habitat was not discovered during Phase I. Should gopher tortoises be found, appropriate permits will be obtained from the Florida Fish and Wildlife Conservation Commission (FWC) as a supplement and the tortoises will be relocated to an approved bank.

A dewatering permit will be obtained for the construction of the culvert at Otter Trail.

1.4 Meetings and Coordination

The Engineer will coordinate with the City's project manager and provide updates as to the status of the project. Additional coordination will be required with DEP, SFWMD, NMFS, USFWS and USACE. This task will be ongoing throughout Phase II.

1.5 Survey / Easement

A field survey of the existing conditions and topographic features will be done for design and permitting purposes. This is to supplement survey that was completed prior to provide additional boundary and safe upland areas. This survey is also required to fulfill the DEP Division of State Lands requirements for the Sovereign State Lands Easements needed for the construction within Sovereign Lands. This scope includes all field and office work required for preparing the actual Sovereign Submerged Lands Easements sketches and legal description.

1.6 Geotechnical Services

The Engineer will provide subsurface exploration for the proposed boardwalk at the Otter Trail site. One SPT boring to a depth of 25' will be taken. Within the boring, penetration resistance testing will be performed in general accordance with the ASTM designations D 1586. Visual classifications of samples will be performed and some laboratory testing will be performed on selected samples. A report will be issued that contains the exploration data, a description of the field and laboratory testing program, description of surface and subsurface conditions at the site including subsurface profiles, boring logs and foundation recommendations for piles.

1.7 Mitigation Plan and Design

The Engineer will perform mitigation design to offset any impacts that may occur during construction. Known mitigation will include: replanting disturbed areas with native species such as swamp lilly, leather fern, and cordgrass. Other mitigation measures will likely not be necessary for this project but will be determined in conjunction with the SFWMD and USACE during the permitting process and through the UMAM analysis. The mitigation plan and design will be conducted simultaneously with the permitting and engineering work and will be submitted with the permit application. The mitigation plan may include, but is not limited to:

- A site visit with SFWMD environmental staff
- Determination of mitigation planting scheme requirements, exotic removal or wetland creation to offset wetland impacts or evaluate other methods of mitigation such as use of Platt's Creek Mitigation Bank.

Task 2: Savannas Recreation Area Trail

The Savannas Recreation Area Trail project consists of the design and permitting of the proposed trail beginning at the entrance of the Savannas Recreation Area and ending south of the F.E.C. railroad line. The Trail is to be a multi-use trail approximately 1.3 miles long with a minimum paved width of 10 feet. The trail will include four (4) boardwalk crossings over low, wet areas and drainage ditches with no appreciable elevation above the Trail surface. Two bridges will be required to span the existing canal and will require an increase in elevation above the existing Trail surface. The bridges will also require meeting vertical clearance requirements set forth by St. Lucie County and DEP. Based on our conceptual design the project will include one tower and vista. The Trail will serve as a segment within the East Coast Greenway, a multi-state trail that connects Calais, Maine, to Key West, Florida, and will also be a segment of the St. Lucie North-South Trail that connects to the Green River Parkway Trail. The trail will be owned by the City of Ft. Pierce and maintained by St. Lucie County.

2.1 Engineering Design

The Engineer will perform sufficient design in order to provide final construction plans and obtain permits. Design shall include plan, cross section and miscellaneous details necessary to construct a proposed 10 foot wide paved trail, boardwalks and vistas along the existing berm on the west side of the canal. The final plans shall include a key sheet, project layout sheet, plan view construction details, cross section construction details, boardwalk and vista details, and stormwater pollution prevention plan, as well as miscellaneous details. All construction plans will be provided in the format directed by the City.

This task also includes the creation of a comprehensive bid package that will include the technical specifications and design plans. This bid package will include all pertinent design specifications which will ensure that projects are constructed per design. The Engineer will review the bid in its entirety and will modify its contents to coincide with the desired construction results. All construction plans will be provided in the format directed by the City. All bid documents will be provided in the format directed by the City.

2.2 Structures Design

The Engineer will design the pedestrian bridges, boardwalks, towers, vistas and stairs for the trail. At this time, two bridges are proposed, a minimum of two boardwalks are proposed, and one tower and vista are proposed. The boardwalks and bridges will be 8' wide. The vista will be 4' wide as will the stairs that connect the vista with the tower. The tower will be 8' wide. The boardwalks and bridges will be designed to be ADA compliant. American will respond to comments on the preliminary plans produced in Phase II, update the design calculations, finalize the construction plans and produce bid documents and specifications.

2.3 Drainage Design

The Engineer will evaluate the proposed improvement requirements as required to size the proposed hydraulic connections in sufficient detail to produce final construction plans.

2.4 Permitting

The Engineer will submit an application for a Standard General Permit to the SFWMD for the construction of the trail. The property of the trail is owned by the City of Ft. Pierce. The permit will be a joint permit between the City of Fort Pierce, City of Port St. Lucie and St. Lucie County. Based on the pre-application meeting held on March 10, 2011, no permit from the USACE will be required. Permits and construction plans will be sent to the USACE to verify that no permit is required once preliminary plans are complete. This task includes responding to any subsequent RAIs to obtain the permit as well as all the items required for permitting and mitigation including UMAMs. We anticipate these project requiring two UMAMs for existing conditions and two additional UMAMs for the post construction conditions to determine if mitigation will be required. A building permit will also be required from the City of Fort Pierce prior to construction.

The Engineer will conduct final gopher tortoise and other wildlife surveys to determine the presence or absence of gopher tortoises or other threatened and endangered species. During Phase I, two gopher tortoise burrows were observed on top of the berm where the trail will be constructed. If gopher tortoises are found, appropriate permits will be obtained from the Florida Fish and Wildlife Conservation Commission (FWC) and the tortoises will be relocated to an approved bank. Final surveys for gopher tortoises will not be completed until 90 days prior to construction. Permits for the gopher tortoise relocation will be submitted immediately after the final survey. Thus, the schedule for survey and permitting for gopher tortoises are contingent on the proposed begin construction date. Due to the terrain of the trail and limited accessibility, gopher tortoises will be captured via bucket traps for 28 days. If other protected species are found, the appropriate agencies will be contacted and appropriate measures or permits will be implemented.

2.5 Meetings and Coordination

The Engineer will meet with the City's project manager and provide updates as to the status of the project. Additional coordination will be required with St. Lucie County, City of Fort Pierce, SFWMD and USACE. This task will be ongoing throughout Phase II.

2.6 Geotechnical Services

The Engineer will provide subsurface exploration for the proposed structures along the Savannas Recreation Area Trail. A total of twelve (12) SPT borings to a depth of 35' are proposed for the various bridge and tower/vista elements. These borings will provide information needed for the design of the pile foundations for these structures. If suitable soils are encountered at shallower depths than anticipated, every effort will be made to shorten the borings for corresponding budget savings.

An anticipated fifteen (15) hand auger borings and penetrometer probings will be performed to depths of about 7 +/- feet below the existing ground surface. These borings will be performed at spacings of about 500' along the proposed upland trail segments.

Visual classification on the recovered samples will be done as will suitable laboratory testing of select samples. An engineering analysis will be performed on all data obtained to evaluate general subsurface conditions and to develop engineering recommendations to guide site preparations procedures foundation support, and any other pertinent geotechnical engineering aspects of the project. Deliverables include a written report upon the conclusion of the study along with all data developed during the exploration and laboratory analysis.

2.7 Mitigation Plan and Design

The Engineer will perform mitigation design to offset any impacts that may occur as part of the project. The mitigation plan and design will be conducted simultaneously with the permitting and engineering work and will be submitted with the permit application. Mitigation measures for this project will be determined through coordination with the SFWMD and USACE. The mitigation plan may include, but is not limited to:

- A site visit with SFWMD environmental staff
- Conduct additional UMAM assessments, as necessary
- Determination of mitigation planting scheme requirements, exotic removal or wetland creation to offset wetland impacts or evaluate other methods of mitigation such as use of Platts Creek Mitigation Bank.

Task 3: Halpatiokee Canoe Launch Replacement

The improvements to the Halpatiokee Canoe Launch project consists of the design and permitting of the canoe launch at a location south of the existing location to the satisfaction of DEP. In addition, the canoe launch will include a 30-foot boardwalk, pavilion, restroom, interpretive kiosk, paved parking for 21 vehicles, paved entrance road approximately 0.50 mile long, and road signage. The boardwalk will be 10 feet wide if cost feasible. The canoe launch deck will be 10 feet by 12 feet in dimension.

3.1 Engineering Design

The Engineer will prepare final construction plans which will include final drainage design, quantities, bid documents, and specifications for grading. Design shall include plan, cross section and miscellaneous details necessary to construct a 20-foot wide paved access road with connection to US 1, boardwalk, 10 foot by 12 foot

canoe launch, paved parking area, drainage swales, water main, sewer line, and minimal signing and pavement markings. The final plans shall include a key sheet, project layout sheet, plan view construction details, cross section construction details, and stormwater pollution prevention plan, as well as miscellaneous details. All construction plans will be in the format directed by the City.

This task also includes the creation of a comprehensive bid package that will include the technical specifications and design plans. This bid package will include all pertinent design specifications which will ensure that projects are constructed per design. American will review the bid in its entirety and will modify its contents to coincide with the desired construction results. All bid documents will be in the format as directed by the City.

3.2 Structures Design

The canoe launch will include a 10' timber boardwalk connecting the parking lot of the canoe launch to the canoe/kayak launch deck. The deck will also be 10' wide. American will design the boardwalk and deck as well as the proposed 12' by 24' pavilion to be ADA compliant. Structures services will include design calculations, final plans and bid documents and specifications.

3.3 Drainage Design

The Engineer will evaluate the proposed improvement requirements as required to size the proposed hydraulic connections in sufficient detail to produce final plans. This subtask will include the stormwater management report and documentation, analysis to size and design site stormwater management facilities and permitting support.

3.4 Utility Design

The Engineer will prepare construction details required for construction of a water main and sewer line to service the proposed restroom facilities at the canoe launch. The lines shall connect to existing facilities to the south or along US 1. The connection location will be based on coordination with the City of Port St. Lucie Utilities.

3.5 Permitting

The Engineer will submit an application for a Standard General Permit to the SFWMD and USACE for the relocation of the canoe launch. A sovereign submerged lands easement will be required for this project as part of the permit package. This task includes responding to any subsequent RAIs to obtain the permit.

The Engineer will obtain a dewatering permit from SFWMD for the construction of the restroom and a driveway connection permit from the FDOT for the entrance into the facility from US 1.

One gopher tortoise burrow was located within the footprint of the project during Phase I. The Engineer will conduct final gopher tortoise and other wildlife surveys to determine the presence or absence of gopher tortoises or other threatened and endangered species. If gopher tortoises are found, appropriate permits will be obtained from the Florida Fish and Wildlife Conservation Commission (FWC) and the tortoises will be relocated to an approved bank. Gopher tortoises will be excavated using approved equipment. In addition, an active bald eagle nest is located within 660' feet of the proposed project requiring coordination with the FWC. If construction cannot be avoided during the nesting season, observations will need to be made to determine if impacts to the eagle are resulting from the construction. If other protected species are found, the appropriate agencies will be contacted and appropriate measures or permits will be implemented.

3.6 Meetings and Coordination

The Engineer will meet with the City's project manager and provide updates as to the status of the project. Additional coordination will be required with DEP, SFWMD, USACE, USFWS, and FWC. This task will be ongoing throughout Phase II.

3.7 Geotechnical Services

The Engineer will provide subsurface exploration for the proposed structures at the proposed Halpatiokee Canoe Launch. One SPT boring to a depth of 35' is proposed for the boardwalk and deck. This boring will be performed with a truck-mounted drill rig as close as possible to the proposed canoe launch deck and associated boardwalk. The findings of this boring will provide information needed for the design of the pile foundations for these structures.

Ten hand auger borings to depths of about 7+/- feet below the existing ground surface will be performed. These borings will be performed along the existing unpaved firebreak and at the locations of the proposed restroom and pavilion. The boring will obtain information needed for the pavement design, and the design of the structure's foundations.

Sampling of the existing subgrade soils for the performance of Limerock Bearing Ration (LBR) tests will be performed and utilized in the pavement design. A total of three samples will be obtained and tested.

Visual classification on the recovered samples will be done as will suitable laboratory testing of select samples. An engineering analysis will be performed on all data obtained to evaluate general subsurface conditions and to develop engineering recommendations to guide site preparations procedures foundation support, and any other pertinent geotechnical engineering aspects of the project. Deliverables include a written report upon the conclusion of the study along with all data developed during the exploration and laboratory analysis.

3.8 Architectural Design

The Engineer will develop the preliminary structural, mechanical, electrical, and plumbing designs for the proposed restroom at the Halpatiokee Canoe Launch. Drawings will include design development site, floor, reflected ceiling and roof plans, interior and exterior elevations, building sections, typical wall sections, technical outline specifications, detail schedules and notes. An estimate of probable costs will also be determined. Permitting through DEP for construction and activation of the water main and sewer line will be obtained. A building permit will also be obtained for the construction of the restroom. These permits will be acquired through this task.

3.9 Mitigation Plan and Design

Mitigation measures are not expected for this project. If necessary, the mitigation plan and design will be conducted simultaneously with the permitting and engineering work and will be submitted with the permit application. The mitigation plan may include, but is not limited to:

- A site visit with SFWMD environmental staff
- Conduct additional UMAMs, as necessary
- Determination of mitigation planting scheme requirements, exotic removal or wetland creation to offset wetland impacts or evaluate other methods of mitigation such as use of Platts Creek Mitigation Bank.

Task 4: Improvements to the Existing Savannas Preserve State Park Education Center

The improvements to the Savannas Preserve State Park Education Center consists of a 3,000-square-foot addition to the existing structure for classrooms and a laboratory, improvements and expansion of the existing parking facilities, a 6 foot wide trail and boardwalk connecting the education center and proposed overlook, and a 12 foot wide by 30 foot long overlook into the marsh.

4.1 Engineering Design

The Engineer will prepare final construction plans which will include final drainage design, quantities, bid documents, and specifications for grading. Design shall include plan, cross section and miscellaneous details necessary to reconstruct the existing entrance road and parking area, construct additional paved parking, concrete sidewalk, boardwalk and a 12 foot by 30 foot observation deck. The final plans shall include a key sheet, project layout sheet, plan view construction details, cross section construction details, stormwater pollution prevention plan, as well as miscellaneous details. All plans will be in the format as directed by the City.

This task also includes the creation of a comprehensive bid package that will include the technical specifications and design plans. This bid assistance will include all pertinent design specifications which will ensure that projects are constructed per design. The Engineer will review the bid in its entirety and will modify its contents to coincide with the desired construction results. All bid documents will be in the format as directed by the City.

4.2 Structures Design

The improvements to the Education Center include a 12' by 30' overlook in the Savannas wetlands and a 6' boardwalk connecting the improved Glass Lizard Trail to the overlook. American will design the timber boardwalk and overlook to be ADA compliant. Structures services will include design calculations, final plans, and bid documents and specifications.

4.3 Drainage Design

The Engineer will evaluate the proposed improvement requirements as required to size the proposed hydraulic connections in sufficient detail for final plans and permitting. This subtask will include the stormwater management report and documentation, and analysis to size and design site stormwater management facilities for final plans.

4.4 Utility Design

The Engineer will prepare construction detail required for the utility additions and adjustments as required for the construction of the addition.

4.5 Permitting

The Engineer will submit an application for a No Notice General Permit for the improvements to the education center and parking lot. In addition, a Noticed General Permit under 40E-400.475 will be submitted for the overlook. This task also includes responding to any subsequent RAIs to obtain the permit. Mitigation measures are not expected for this project.

One gopher tortoise burrow was found within 25 feet of the proposed construction during Phase I. One gopher tortoise burrow was located within the footprint of the project during Phase I. The Engineer will conduct final gopher tortoise and other wildlife surveys to determine the presence or absence of gopher tortoises or other threatened and endangered species. If gopher tortoises are found, appropriate permits will be obtained from the Florida Fish and Wildlife Conservation Commission (FWC) and the tortoises will be relocated to an approved

bank. Permits for the gopher tortoise relocation will be submitted immediately after the final survey. Gopher tortoises will be excavated using approved equipment. If other protected species are found, the appropriate agencies will be contacted and appropriate measures or permits will be implemented.

4.6 Meetings and Coordination

The Engineer will meet with the City's project manager and provide updates as to the status of the project. Additional coordination will be required with DEP, SFWMD, USACE, USFWS, and FWC. This task will be ongoing throughout Phase II.

4.7 Geotechnical Services

The Engineer will provide subsurface exploration for the proposed structures at the Savannas Preserve Education Center. Two SPT borings to a depth of 25' are proposed for the boardwalk and deck. These borings will be performed with a truck-mounted drill rig as close as possible to the proposed observation deck/boardwalk and within the building addition area. The findings of this boring will provide information needed for the design of the pile foundations for these structures.

The Engineer will provide eight (8) hand auger borings to depths of about 7+/- feet below the existing ground surface will be performed. These borings will be performed within the proposed parking expansion areas and along the proposed sidewalk areas.

A visual classification on the recovered samples will be done as will suitable laboratory testing of select samples. An engineering analysis will be performed on all data obtained to evaluate general subsurface conditions and to develop engineering recommendations to guide site preparations procedures foundation support, and any other pertinent geotechnical engineering aspects of the project. Deliverables include a written report upon the conclusion of the study along with all data developed during the exploration and laboratory analysis.

4.8 Architectural Design

The Engineer will develop the structural, mechanical, electrical, and plumbing designs for the addition to the Education Center. Drawings will include design development site, floor, reflected ceiling and roof plans, interior and exterior elevations, building sections, typical wall sections, technical outline specifications, detail schedules and notes. An estimate of probable costs will also be determined. A building permit will also be obtained for the expansion of the education center. The building permits will be acquired through this task. This task also includes the preparation of bid documents and specifications. All construction plans and bid documents will be in the format as directed by the City.

Compensation

		Engineer Fee
Task 1 - Water Quality Improvements		
1.1	Engineering and Drainage Design	\$143,642.00

1.2	Structures Design	\$7,428.00
1.3	Permitting ** Est fee @ \$12,000	\$68,308.00
1.4	Meetings and Coordination	\$16,960.00
1.5	Survey and Easement	\$4,950.00
1.6	Geotechnical Services	\$13,869.00
1.7	Mitigation Plan and Design	\$676.00
Task 1 Totals		\$255,653.00
Task 2 - Savannas Recreation Area Trail		
2.1	Engineering Design	\$14,508.00
2.2	Structures Design	\$40,320.00
2.3	Drainage Design	\$6,912.00
2.4	Permitting ** Est fee @ \$9,700	\$44,522.75
2.5	Meetings and Coordination	\$16,960.00
2.6	Geotechnical Services	\$33,704.75
2.7	Mitigation Plan and Design	\$4,326.00
Task 2 Totals		\$161,253.50
Task 3 - Halpatiokee Canoe Launch		
3.1	Engineering Design	\$18,960.00
3.2	Structures Design	\$22,092.00
3.3	Drainage Design	\$14,712.00
3.4	Utility Design	\$15,240.00
3.5	Permitting ** Est fee @ \$30,500	\$53,430.25
3.6	Meetings and Coordination	\$16,960.00
3.7	Geotechnical Services	\$5,445.00
3.8	Architectural Design	\$6,211.00
3.9	Mitigation Plan and Design	\$1,888.00
Task 3 Totals		\$154,938.25
Task 4 - Savannas Preserve Education Center		
4.1	Engineering Design	\$15,240.00
4.2	Structures Design	\$7,740.00
4.3	Drainage Design	\$12,480.00
4.4	Utility Design	\$10,260.00
4.5	Permitting ** Est fee @ \$300,00	\$21,777.63
4.6	Meetings and Coordination	\$16,960.00
4.7	Geotechnical Services	\$4,266.00
4.8	Architectural Design	\$31,810.00
Task 4 Totals		\$120,533.63
Not to Exceed- Expenses*		\$2,500.00
Grand Total		\$694,878.38

*Expenses are a Not to Exceed amount for reimbursable items such as copies, printing and so forth. This will be paid at actual cost and invoices will be presented for each payment. The City will not pay more than the Not to Exceed amount of \$2,500.00 and change orders to increase this amount will not be approved.

** Permitting includes the Engineer time and effort for permit application and an estimated amount for the permit fees. The permit fees will be reimbursed at actual cost of the permit and a deductive change order will be provided if less than estimate.

Task 2.4, 3.5 & 4.5 Gopher Tortoises fees- The fee for this task is based on a multiplier of 5 times the number of actual burrows found during Phase I. If fewer burrows are found during final surveys, the fee will be reduced accordingly. Therefore, for this task, the cost is a Not to Exceed amount and will be paid at actual cost and a deductive change order will be provided if less than the Not to exceed amount. The City will not pay more than the Not to Exceed and change orders to increase this amount will not be approved.

Invoices for services shall be submitted once a month, by the 10th day of the month, and payments shall be made within thirty (30) days. All invoices and correspondence relative to this Contract must contain the Purchase Order number and Contract number. Invoices will be detailed and will be submitted as per the task as submitted above. All invoices submitted must include partial or final release of liens from all sub-contractors. No payment will be made unless the City receives a proper invoice including all release of liens. All sub-contractors shall be submitted to the project manager. The City reserves the right to reject any sub-contractor without any justification.

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IN WITNESS WHEREOF, the parties have executed this contract at Port St. Lucie Florida, the day and year first above written.

CITY OF PORT ST. LUCIE FLORIDA

By: _____
City Manager

ATTEST:

By: _____
City Clerk

By: _____
American Consulting Engineers of Florida, LLC

State of: _____

County of: _____

Before me personally appeared: _____
(please print)

Personally known _____

or Produced Identification: _____
(type of identification)

Identification No. _____

known to me to be the person described in and who executed the foregoing instrument, and acknowledged to and before me that _____ executed said instrument for the purposes therein expressed.
(s/he)

WITNESS my hand and official seal, this _____ day of _____, 2012.

Notary Signature

Notary Public-State of _____ at Large

My Commission Expires _____

(seal)