

20. Approve Amendment #2 to PS-5125-02/BJC – Cross Seminole Trail South – Phase II with Reynolds, Smith and Hills, Inc., (\$27,985.91).

PS-5125-02/BJC provides for professional design services for the Cross Seminole Trail North – Phase III project. Improvements will include the existing trail corridor between Red Bug Lake Road and Franklin Street East, also including a 15' wide paved multi-use trail and un-paved trail for hiking and equestrian use. Amendment #2 will provide for a small pedestrian bridge over Sweetwater Creek in conjunction with final alignment surveys during the engineering phase. The bridge will be 12 feet in width and span the entire creek.

The following is a summary of the cost of the contract:

Original Contract Sum	\$175,000.00
Add Amendment #1	18,955.27
Add Amendment #2	<u>27,985.91</u>
Revised Contract Sum	\$221,941.18

Funds are available in account number 077533-56068000, sub-ledger # 001877-02. Public Works/Engineering Division and Fiscal Services/Purchasing and Contracts Division recommend the Board approve and authorize the County Manager to execute Amendment #2.

**SECOND AMENDMENT TO DESIGN AND ENVIRONMENTAL PERMITTING SERVICES
(PS-5125-02/BJC) CROSS SEMINOLE TRAIL SOUTH - PHASE III**

THIS SECOND AMENDMENT is made and entered into this _____ day of _____, 20____ and is to that certain Agreement made and entered into on the 6th day of February, 2003, as amended on March 3, 2004, between **REYNOLDS, SMITH AND HILLS, INC.**, whose address is 3670 Maguire Boulevard, Suite 300, Orlando, Florida 32803, hereinafter referred to as "CONSULTANT," and **SEMINOLE COUNTY**, a political subdivision of the State of Florida, whose address is Seminole County Services Building, 1101 East First Street, Sanford, Florida 32771, hereinafter referred to as "COUNTY".

W I T N E S S E T H:

WHEREAS, the CONSULTANT and COUNTY entered into the above-referenced Agreement on February 6, 2003, as amended on March 3, 2004, for design and environmental permitting services for the Cross Seminole Trail South, Phase III; and

WHEREAS, the parties desire to amend the Agreement so as to increase the Scope of Services and the amount of compensation paid to the CONSULTANT; and

WHEREAS, Section 19 of the Agreement provides that any amendments shall be valid only when expressed in writing and duly signed by the parties,

NOW, THEREFORE, in consideration of the mutual understandings and agreements contained herein, the parties agree to amend the Agreement as follows:

1. Section 3 of the Agreement is amended to read:

SECTION 3. COMPENSATION AND PAYMENT.

(a) The COUNTY agrees to compensate CONSULTANT for the additional professional services called for under this Agreement a fee not to exceed the sum of TWENTY-SEVEN THOUSAND NINE HUNDRED EIGHTY-FIVE AND

91/100 DOLLARS (\$27,985.91) with a total fee payable to the CONSULTANT not to exceed TWO HUNDRED TWENTY-ONE THOUSAND NINE HUNDRED FORTY-ONE AND 18/100 DOLLARS (\$221,941.18). CONSULTANT shall perform all work required by the Scope of Services but, in no event, shall CONSULTANT be paid more than the negotiated fee stated above. Compensation shall be paid to the CONSULTANT at the rates as set forth in Exhibit "B," Rate Schedule, attached hereto and incorporated herein.

(b) Payments shall be made to the CONSULTANT when requested as work progresses for services furnished, but not more than once monthly. CONSULTANT may invoice amount due based on percentage of total required services actually performed and completed. Upon review and approval of CONSULTANT'S invoice, the COUNTY shall, within thirty (30) days of receipt of the invoice, pay CONSULTANT ninety percent (90%) of the approved amount and retain the remaining ten percent (10%) until completion of all remaining work required by the Scope of Services. If COUNTY determines that all work is substantially complete or that work by subcontractors is substantially complete and the amount retained is considered to be in excess, the COUNTY may, at its discretion, release the retainage or portions of the retainage for all work or the specific retainage of individual subcontractors.

2. Exhibit "A" of the Agreement is amended by the addition of services as indicated in Exhibit "A," attached hereto.

3. Except as herein modified, all terms and conditions of the Agreement shall remain in full force and effect for the term of the Agreement, as originally set forth in said Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this instrument for the purpose herein expressed.

ATTEST:

REYNOLDS, SMITH AND HILLS, INC.

By: _____
JOSEPH N. DELOS
Senior Vice-President

(CORPORATE SEAL)

Date: _____

WITNESSES:

SEMINOLE COUNTY, FLORIDA

By: _____
J. KEVIN GRACE, County Manager

Date: _____

For the use and reliance
of Seminole County only.

Within authority of Resolution
No. 93-R-71 adopted February 23,
1993.

Approved as to form and
legal sufficiency.

County Attorney

AC/lpk
12/20/04
2am-ps-5125

APPENDIX A-1 Expanded Scope of Services

Bridge Design over Sweetwater Creek

1.0 Bridge Design & Coordination

Completion of preliminary engineering phase of the project has revealed a need for a trail bridge over Sweetwater Creek. The CONSULTANT is to provide the necessary and required structural design and plans preparation for the construction of a bridge structure over Sweetwater Creek to accommodate the proposed trail. This work is anticipated to include construction plans and section details along with corresponding structural calculations. These plans will be prepared consistent with FDOT's *Roadway Plans Preparation Manual, Volumes I & II*, (non-metric units), and FDOT's Structures Design Office's *Standard Drawings*. If required by the COUNTY, the graphical representation of these plans may need modification to provide clarity and presentation acceptable to the COUNTY. All structural design is to be professionally endorsed by a professional regularly practicing within the field of structural engineering licensed in the State of Florida.

The services provided under this supplemental agreement shall include:

1.1 Preliminary Design

The CONSULTANT (bridge designer) will conduct a site visit to verify the bridge location and relevant site features. The CONSULTANT will prepare a preliminary bridge design layout, cross section, and elevation for up to three (3) bridge types from a pre-engineered bridge manufacturer suitable for use at this location. These layouts, cross sections, and elevations will be black and white CADD type graphics, not computer renderings. Investigated bridge types will be limited to single span structures with no intermediate bents or piers. Span length shall be set so as to maintain 10 foot horizontal clearance face and end bent / abutment and contour of the Mean High Water Elevation (MHWE) (provided by the County).

A preliminary cost estimate will be prepared for the three (3) alternatives. The preliminary cost estimates for the alternatives will provide a table of material and installation costs for substructure, material costs of the pre-engineered manufactured bridge type (cost provided by supplier), installation costs of the pre-engineered manufactured bridge type, material and installation costs for the superstructure items not supplied by the pre-engineered bridge manufacturer, and demolition costs for the existing wooden trestle structure. For purposes of developing demolition cost estimates, it is assumed that no hazardous materials are present in the existing trestle structure.

Following the preparation of the preliminary bridge design, the CONSULTANT will attend a coordination meeting with the County Engineering Department / Special Projects Section staff to review each alternative and select a preferred bridge model, size, type, and layout to be carried forward into final design.

1.2 Geotechnical Coordination

The CONSULTANT will coordinate the need for additional soil information for the bridge design with our geotechnical SUB CONSULTANT. Geotechnical investigation will include taking two 50-foot SPT soil borings, one at each bridge end bent location. The Geotechnical SUB CONSULTANT shall prepare and submit for review a Preliminary Geotechnical Report that includes the following:

- Summary of Field Investigation
- Summary of Laboratory Testing
- General Subsurface and Geological Profile
- Soil Corrosion Potential / Environmental Corrosion Classification
- Groundwater Conditions
- Report of Core Boring Profiles
- Foundation Type Evaluation and Recommendations based on foundation design loads supplied by the CONSULTANT.
 - Spread Footings
 - Prestressed Pile Supported Concrete Caps
- Design Parameters for Foundation Types
- Analysis of Allowable / Ultimate Foundation
- Capacity and Settlement Potential for each Foundation Recommendation
- Lateral Capacity Analysis of Foundation Alternatives

The Geotechnical SUB CONSULTANT shall address comments arising from Preliminary Geotechnical Report Review and submit a Final Geotechnical Report.

The Geotechnical SUB CONSULTANT shall prepare Report of Core Borings CADD drawings for inclusion in the construction plans in accordance with FDOT standards.

1.3 Substructure Bridge Design

The CONSULTANT shall prepare the bridge foundation, substructure, and end bents designs, structural calculations, and construction plans. The foundations will be designed to accommodate the loading requirements recommended by a pre-engineered bridge manufacturer. The horizontal and vertical layout of the bridge will be established by the CONSULTANT and provided to a pre-engineered bridge manufacturer. The design selected will consist of a cast-in-place concrete deck supported by a steel framed truss to be designed by a pre-engineered bridge manufacturer. The bridge construction plans will include a general plan layout, bridge elevation, typical cross section, foundations sections, and details with general notes. Bridge plans will be prepared for review and approval by the COUNTY, but they will not conform to FDOT design standards. The existing wooden bridge will be removed to an elevation two feet below the existing or proposed grade, whichever is greater.

1.4 Bridge Superstructure Design

The type of bridge to be used will be a pre-engineered manufactured structure. The CONSULTANT shall prepare design criteria for inclusion on contract drawings and recommend a bridge layout, span length, cross sectional width, and type for COUNTY approval. A pre-engineered bridge manufacturer will be responsible for providing the superstructure design, detailing, and structural calculations for the superstructure framing, railings, bearings, and cast-in-place concrete deck. The design will accommodate ADA and ASSHTO requirements, which requires an 85 pounds per square foot live load. Additionally the bridge needs to support a 10,000 pound vehicle load. The pre-engineered bridge manufacturer shall provide the preliminary bridge loadings, design calculations and specifications for the foundation and abutment design. The CONSULTANT shall provide the bridge foundation, substructure, and end bents designs. Approach slabs adjacent to the structural end bents are not anticipated for this design. A pre-engineered bridge manufacturer typically does not provide a complete set of detailed plans and calculations or final stamped and sealed bridge design drawings unless they are compensated for the design efforts prior to bidding of the contract. The intent of this scope of services is to have the CONSULTANT coordinate the bridge design components with a pre-engineered bridge manufacturer for the project. The contract documents will contain design criteria, elevations, cross sections, a plan view, and specifications for the superstructure as provided by a pre-engineered bridge manufacturer. The bid documents will not include a complete set of superstructure details. The intent will be for the cost associated with the pre-engineered bridge manufacturer's superstructure design to be included with the contractor's bid price for the bridge construction and installation. The CONSULTANT shall assist with the preparation of the superstructure plans and review plans and specifications. No additional design fees for a pre-engineered bridge manufacturer have been included herein.

1.5 Technical Special Provisions

The CONSULTANT shall prepare one technical special provision for a pre-engineered bridge manufacture superstructure, based upon information supplied by a pre-engineered bridge manufacturer. Remaining material and construction specifications will be included as notes in the contract drawings and refer to the 2000 edition of the Florida Department of Transportation's *Standard Specifications for Road and Bridge Construction*.

1.6 Engineer's Cost Estimate

The CONSULTANT shall prepare approximate quantities and an engineer's cost estimate for the construction items included as part of the bridge design and removal of the existing bridge structure for review by the COUNTY. The CONSULTANT will address comments received from the COUNTY and implement approved changes into the final construction cost estimate for the project.

1.7 Permitting

Permitting for the project has been included under the scope of services provided under Amendment 1 for this project. The bridge to be designed will clear span Sweetwater Creek and no center piers or construction activity is anticipated to occur within the creek limits. As

such, no additional permitting efforts are expected to be required to incorporate the bridge design as included herein.

1.8 Submittals

The following are anticipated for contract work related to the trail bridge design.

- Preliminary Geotechnical Report
- Final Geotechnical Report
- Preliminary Bridge Selection Memorandum (summarizing data specified in Section 1.1)
- 100% Construction Plans / Technical Special Provision / Cost Estimate / Calculations incorporating comments on 100% Plans.

1.9 Services Not Included

The services list below are not anticipated as being required to complete the bridge design and as such have not been included in the above scope of services. In the event that these services are required by the COUNTY, the CONSULTANT will promptly notify the COUNTY and submit a scope of services and budget for the effort involved.

- Superstructure Detailing and Design
- Post Design Services
- Shop Drawing Reviews
- Additional Permitting Efforts
- Bridge Hydraulic Reports and/or Hydraulic Recommendation Drawings

Exhibit A-2: Master Summary - Estimate of Work Effort & Fee Proposal

Consultant: Reynolds, Smith and Hills, Inc.
Date Prepared: September 7, 2004

RFP No.:

Job Description: Ammendment 2 - Design Services for Cross Seminole Trail Phase III Trail Bridge over Sweetwater Creek

Work Element / Activity	Project Manager		Chief Engineer / Designer		Senior Engineer / Designer		Engineer / Designer				CADD Technician		Clerical		Total Man Hours	Salary Cost By	Average Hourly Rate
	Man Hours	Hourly Rate	Man Hours	Hourly Rate	Man Hours	Hourly Rate	Man Hours	Hourly Rate	Man Hours	Hourly Rate	Man Hours	Hourly Rate	Man Hours	Hourly Rate	By Activity	Activity	Rate
Meetings and Coordination	1	\$49.85		\$41.57	8	\$36.78		\$25.82				\$20.70		\$12.96	9	\$344.09	\$38.23
1.1 Site Visit		\$49.85		\$41.57	8	\$36.78	8	\$25.82				\$20.70		\$12.96	16	\$500.80	\$31.30
Preliminary Design & Est	2	\$49.85	4	\$41.57	12	\$36.78	12	\$25.82				\$20.70	2	\$12.96	32	\$1,043.10	\$32.60
1.2 Geotechnical Coord	1	\$49.85	1	\$41.57	4	\$36.78	0	\$25.82				\$20.70	0	\$12.96	6	\$238.54	\$39.76
1.3 Bridge Superstructure	2	\$49.85	4	\$41.57	12	\$36.78	12	\$25.82				\$20.70	4	\$12.96	34	\$1,069.02	\$31.44
1.4 Bridge Substructure Design	4	\$49.85	8	\$41.57	40	\$36.78	60	\$25.82				\$20.70		\$12.96	112	\$3,552.36	\$31.72
1.5 Technical Special Provisions		\$49.85	2	\$41.57	4	\$36.78	4	\$25.82				\$20.70		\$12.96	10	\$333.54	\$33.35
1.6 Engineer's Cost Estimate	1	\$49.85	2	\$41.57	4	\$36.78	8	\$25.82				\$20.70		\$12.96	15	\$486.67	\$32.44
1.7 Submittals	4	\$49.85	4	\$41.57	8	\$36.78	32	\$25.82				\$20.70	16	\$12.96	64	\$1,693.52	\$26.46
Totals	15	\$49.85	25	\$41.57	100	\$36.78	136	\$25.82			0	\$20.70	22	\$12.96	298	\$9,261.64	\$31.08
Total Per Classification	\$ 747.75		\$ 1,039.25		\$ 3,678.00		\$ 3,511.52				\$ -		\$ 285.12				

Total Contract Fee Computations

Total Activity Salary Costs

\$9,261.64

1.) Overhead Additives

a.) Administrative & General Overhead
and Fringe Benefits

162.000%

\$15,003.86

Subtotal (Salaries + Combined Overhead)

\$24,265.50

2.) Operating Margin Cost (Fixed Fee)

11.00%

\$2,669.21

***Subtotal (Burdened Salaries + Operating Margin)**

\$26,934.71

3.) Miscellaneous & Direct Expenses (LS)

11.35%

\$1,051.20

4.) Subconsultant Fees (Limiting Amount)

\$0.00

TOTAL SUBCONSULTANT FEES \$0.00

TOTAL MAXIMUM LIMITING FEE

\$27,985.91

* THESE AMOUNTS SHOULD BE EQUAL(+/- \$0.05)

EXHIBIT A-1

