

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: CFX Board Members

FROM: Robert Johnson 
Manager of Procurement

DATE: April 26, 2016

SUBJECT: Authorization for Approval of Supplemental Agreement No. 1
S.R. 528 Econlockhatchee River Bridge Replacement
Project 528-131, Contract No. 001098

Board approval is requested for Supplemental Agreement No. 1 with WSP | Parsons Brinkerhoff in the not-to-exceed amount of \$165,355.60. Supplemental Agreement No. 1 consists of two individual parts, Supplemental No. 1A and Supplemental No. 1B, each provided by WSP | Parsons Brinkerhoff and included as backup to this request.

Services consist of additional design efforts relating to the design of a stormwater ponds. After coordination with the St. Johns Water Management District through the permitting process, it was discovered that additional stormwater treatment would be required.

The additional services also include design efforts relating to the accommodation of the All Aboard Florida corridor, the removal of unsuitable subsurface soils and the relocation of the existing fiber optic network on the North side of S.R. 528 within the project limits.

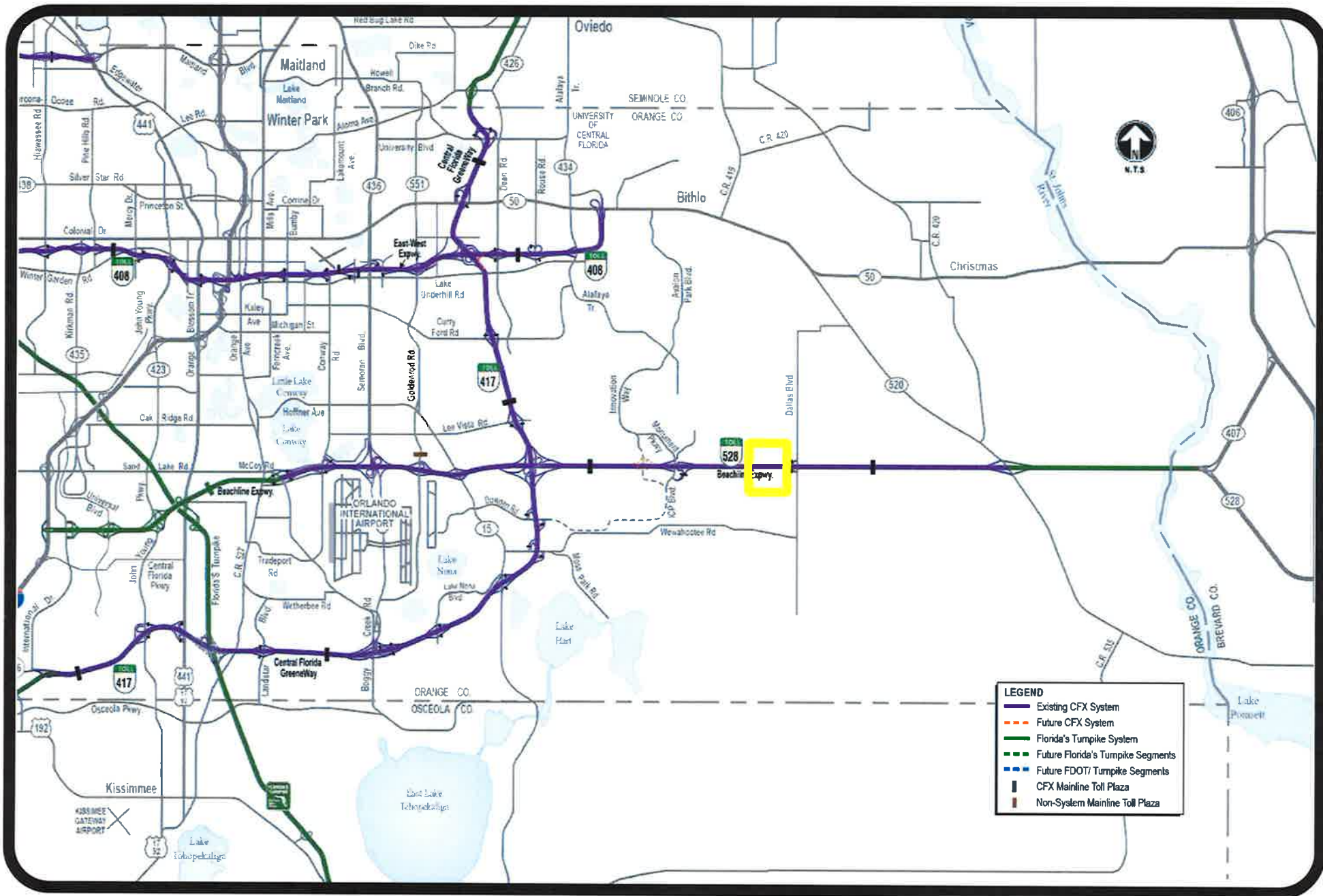
This Supplemental Agreement will be a continuation of an agreement previously approved by CFX for this project.

Original Contract Amount	\$1,200,000.00
Amount of Supplemental Agreement No. 1	<u>\$ 165,355.60</u>
Total Revised Contract Amount	\$1,365,355.60

Reviewed by:


Glenn Pressimone, PE
Director of Engineering





Project Location Map for
S.R. 528 Econlockhatchee River Bridge Replacement (528-131)

SUPPLEMENTAL AGREEMENT NO. 1
TO
AGREEMENT FOR PROFESSIONAL SERVICES
FINAL DESIGN
S.R. 528/Econlockhatchee River Bridge Replacement

THIS SUPPLEMENTAL AGREEMENT is made and entered into this _____ day of _____, 2016, by and between the CENTRAL FLORIDA EXPRESSWAY AUTHORITY, an agency of the State of Florida, hereinafter called "CFX" and the consulting firm of PARSONS BRINCKERHOFF, INC. of Orlando, Florida, hereinafter called the "CONSULTANT".

WHEREAS, Articles 2.00 and 12.0 of the Agreement for Professional Services between CFX and the CONSULTANT, dated the 13th Day of August 2015, provides that in the event that CFX shall change the amount of work in Exhibit A of the said Agreement for Professional Services, the fees to be paid to the CONSULTANT shall be subject to adjustment as shall be mutually agreed upon:

NOW, THEREFORE, BE IT RESOLVED THAT:

1. CFX hereby authorizes the CONSULTANT to proceed with additional services as outlined in the CONSULTANT'S April 22, 2016 transmittal to CFX, which is attached hereto and made a part of this Supplemental Agreement.
2. Exhibit "B", Article 2.00 of the Agreement for Professional Services is amended as follows:
 - a. The Salary related costs are adjusted upward by \$169,674.42 to \$815,471.48.
 - b. The Direct Expenses (Lump Sum) remain unchanged at \$4,887.59
 - c. The Subcontract Items are adjusted upward by \$51,341.97 to \$544,996.53.

• Antillian	\$38,617.52
• VHB	\$8,102.81
• WBQ	\$4,621.64
 - d. The Allowance is adjusted downward by \$55,660.79 to \$0.00
 - e. The total Maximum Limiting Amount is adjusted upward by \$165,355.60 to \$1,365,355.60
3. All provisions of said Agreement for Professional Services, or any Supplements thereto, not modified by the above, shall remain in full force and effect, the same as if they had been set forth herein. In the event of a conflict between the provisions of this Supplemental Agreement and of the said Agreement for Professional Services, or any Supplements thereto, the provisions of this

Supplemental Agreement, to the extent such provision is reasonable, shall take precedence.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed, in triplicate, the day and year first above written.

CENTRAL FLORIDA
EXPRESSWAY AUTHORITY

Attest: _____
Assistant Secretary

By: _____
Director of Procurement

PARSONS BRINCKERHOFF, INC.

Attest: _____

By: _____

Print Name:

Title:

Approved as to form and execution, only.

General Counsel for CFX

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301 East Pine Street
Suite 1020
Orlando, FL 32801
Main: 407-587-7800
wsp-pb.com/usa

April 22, 2016

Mr. Glenn Pressimone, PE
Central Florida Expressway Authority
4974 Orl Tower Rd, Orlando, FL 32807

Re: Supplemental Services, Revised

Dear Mr. Pressimone:

This supplemental request covers the following additional services associated with this project. Additional details regarding these supplementals and associated fees are included in the attachments.

Supplemental No. 1A – Design of New Stormwater Management Facility
Supplemental No. 1B – Design of Grading Improvements to New Right-of-Way for All Aboard Florida and MSE Wall Improvements to Accommodate Future Expansion of SR 528

Please call if any further information is needed.

Very Truly Yours,
WSP|Parsons Brinckerhoff

A handwritten signature in blue ink, appearing to read 'Greg Smith', with a stylized flourish at the end.

Greg T. Smith, PE
Vice President

cc: Jeannie Perez

Parsons Brinckerhoff

**SR 528 ECONLOCKHATCHEE BRIDGE WIDENING TO DALLAS BLVD
PROJECT № 528-131**

**Supplemental No. 1A
Scope of Services**

Supplemental Services Description:

This supplemental request covers additional services for the design of a stormwater treatment pond and preparing cross-sections to reflect the All Aboard Florida (AAF) improvements.

Prior to receiving NTP, PB held discussions with SJRWMD, who indicated that stormwater permitting would not be necessary under the proposed Econ River bridge reconstruction project (similar to the SR 50 design build project). SJRWMD indicated at the time that permitting could be delayed until the future widening of SR 528 takes place.

However, after receiving NTP, PB held a meeting with other SJRWMD personnel and after internal consultations, SJRWMD determined that stormwater permitting would be necessary under this contract. Consequently, supplemental efforts are needed to design a stormwater pond which has been tentatively sited for the NW quadrant of the Dallas Boulevard Interchange in an existing pond site.

Also, CFX has requested that preliminary cross-sections be prepared to show the proposed AAF improvements. Once this work is completed, additional grading, drainage design, and other plan sheet modifications may be initiated by CFX, though this engineering and plan production are not part of this supplemental.

The services under this supplemental include additional project plan sheets for the Stormwater Management Facility (SMF) and preliminary cross-sections reflecting only the AAF improvements, and not final grading. Additional geotechnical borings and surveys for the SMF are also included to support this design. No surveys or geotechnical services are included at this time for the AAF improvements, though depending on the desired level of engineering by CFX, additional surveys and/or geotechnical services may be requested under a separate supplemental.

ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT

SUPPLEMENTAL ADDITIONAL SERVICES NO. 1A

SR 528-131

Name of Project:
County:
FPN:
FAP No:

Consultant Name: Parsons Brinckerhoff
Consultant No.: 528-131
Date: 4/22/2016

Staff Classification	Task Staff Hours From Summary -	Manager	Senior Engineer	Engineer	Designer	CADD Support	Structures Manager	Senior Struct Eng	Struct Proj Engineer	Struct Engineer	Engineer Intern	Structures Designer	Staff Classification 12	SH By Activity	Salary Cost By Activity	Average Rate Per Task
3 Project General and Project Common Tasks	11	775.16	\$69.17	\$53.14	\$45.28	\$34.65	\$0.00	\$59.46	\$0.00	\$37.36	\$0.00	\$0.00	\$0.00	11	\$871	\$79.16
4 Roadway Analysis	126	8	23	33	32	30	0	0	0	0	0	0	0	126	\$6,466	\$51.32
5 Roadway Plans	190	11	33	50	48	48	0	0	0	0	0	0	0	190	\$9,647	\$50.77
6 Drainage Analysis	82	5	14	21	21	21	0	0	0	0	0	0	0	82	\$4,159	\$50.72
7 Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
8 Environmental Permits, Compliance & Clearances	26	2	6	6	7	5	0	0	0	0	0	0	0	26	\$1,382	\$53.17
9 Structures - Misc Tasks, Dwg, Non-Tech	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
10 Structures - Bridge Development Report	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
11 Structures - Temporary Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
12 Structures - Short Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
13 Structures - Medium Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
14 Structures - Structural Steel Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
15 Structures - Segmental Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
16 Structures - Movable Span	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
17 Structures - Retaining Walls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
18 Structures - Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
19 Signing & Pavement Marking Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
20 Signing & Pavement Marking Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
21 Signalization Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
22 Signalization Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
23 Lighting Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
24 Lighting Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
25 Landscape Architecture Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
26 Landscape Architecture Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
27 Survey (Field & Office Support)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
28 Photogrammetry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
29 Mapping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
30 Geotechnical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
31 Architecture Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
32 Noise Barriers Impact Design Assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
33 Intelligent Transportation Systems Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
34 Intelligent Transportation Systems Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
Total Staff Hours	435	37	\$2,928.92	\$5,266.92	\$4,890.24	\$3,603.60	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	435	\$22,525.08	\$51.78

Survey Field Days by Subconsultant
4 - Parsons Crew

SALARY RELATED COSTS:

OVERHEAD:

153.94%

OPERATING MARGIN:

12%

FCCM (Facilities Capital Cost Money):

0.00%

LUMP SUM EXPENSES:

4-man crew

Survey (Field - if by Prime) \$ / day

SUBTOTAL ESTIMATED FEE:

Subconsultant Anttilan

Subconsultant GEC

Subconsultant VHB

Subconsultant WBG

Subconsultant McKim and Creed

SUBTOTAL SUBCONSULTANTS:

GRAND TOTAL ESTIMATED FEE:

Notes:

1 This sheet to be used by Prime Consultant to calculate the Grand Total fee

2 Manually enter fee from each subconsultant. Unused subconsultant rows may be hidden.

Project Activity 3: Project Common and Project General Tasks

Estimator:

Updated 080818

Task No.	Task	Units	No of Units	Hours/ Unit	SUPPL EMENT	Comments
3.1	Public Involvement		1	0	0	
3.1.1	Community Awareness Plan	LS	1	0	0	
3.1.2	Notifications	LS	1	0	0	
3.1.3	Prepare Mailing Lists	LS	1	0	0	
3.1.4	Median Modification Letters	LS	1	0	0	
3.1.5	Driveway Modification Letters	LS	1	0	0	
3.1.6	Newsletters	LS	1	0	0	
3.1.7	Renderings and Fly Throughs	LS	1	0	0	
3.1.8	PowerPoint Presentation	LS	1	0	0	
3.1.9	Public Meeting Preparations	LS	1	0	0	
3.1.10	Public Meeting Attendance/Followup	LS	1	0	0	
3.1.11	MPO Meetings	LS	1	0	0	
3.1.12	Web Site	LS	1	0	0	
3.1 Public Involvement Subtotal					0	
3.2	Quality Control Plan	EA	1	0	0	
3.3	Specifications Package Preparation	LS	1	0	0	
3.4	Contract Maintenance	LS	1	0	0	
3.5	Value Engineering (Multi-Discipline Team) Review	LS	1	0	0	
3.6	Prime Consultant Project Manager Meetings	LS	1	11	11	See Listing Below
3.7	Plans Update	LS	1	0	0	

Project Activity 3: Project Common and Project General Tasks

Task No.	Task	Units	No of Units	Hours/ Unit	SUPPLEMENT	Comments
3.8	Post Design Services	LS	1	0	0	
3.9	Electronic Delivery	LS	1	0	0	
3.10	Other Project General Tasks	LS	1	0	0	
3. Project Common and Project General Tasks Total					11	

3.6 - List of Project Manager Meetings

Roadway Analysis	EA	0	3	0	
Drainage	EA	1	3	3	For SMF Permit Meeting.
Utilities	EA	0	3	0	
Environmental	EA	0	3	0	For SMF.
Structures	EA	0	3	0	
Signing & Pavement Marking	EA	0	0	0	
Signalization	EA	0	0	0	
Lighting	EA	0	0	0	
Landscape Architecture	EA	0	0	0	
Survey	EA	0	0	0	
Photogrammetry	EA	0	0	0	
ROW & Mapping	EA	0	0	0	
Geotechnical	EA	0	3	0	
Architecture	EA	0	0	0	
Noise Barriers	EA	0	0	0	
ITS Analysis	EA	0	0	0	
Bi-Weekly Progress Meetings	EA		4	0	
Phase Reviews	EA		3	0	
Field Reviews	EA	1	8	8	For SMF and AAF.
Total Project Manager Meetings		2		11	

Notes:

1. If the hours per meeting vary in length (hours) enter the average in the hour/unit column.
2. Do not double count agency meetings between permitting agencies.
3. Project manager meetings are calculated in each discipline sheet and brought forward to column D except for Photogrammetry.

Project Activity 4: Roadway Analysis

Estimator:

0
0

Task No.	Task	Units	No of Units	Hours/ Unit	SUPPL EMENT	Comments
4.1	Typical Section Package	LS	1	0	0	
4.2	Pavement Design Package	LS	1	0	0	
4.3	Access Management	LS	1	0	0	
4.4	Horizontal/Vertical Master Design Files	LS	1	0	0	
4.5	Cross Section Design Files	LS	1	94	94	70 Hrs/MI x 1000/5280 = 14 Hrs For SMF and 70 Hrs/MI x 6000/5280 = 80 Hr to Integrate AAF Improvements into CFX file. STA 1390 to STA 1450 for AAF.
4.6	Traffic Control Analysis	LS	1	0	0	
4.7	Master TCP Design Files	LS	1	0	0	
4.8	Design Variations and Exceptions	LS	1	0	0	
4.9	Preliminary Design Report	LS	1	0	0	
4.10	Computation Book & Quantities	LS	1	8	8	Develop additional quantities associated SMF. Does not include quantities for AAF.
4.11	Cost Estimate	LS	1	8		
4.12	Technical Special Provisions	LS	1	0	0	
4.13	Submittal Preparations	EA	5	0	0	
Roadway Analysis Technical Subtotal					102	
4.14	Field Reviews	LS	1	8	8	
4.15	Technical Meetings	LS	1	0	0	
4.16	Quality Assurance/Quality Control	LS	%	5%	6	
4.17	Independent Peer Review	LS	%	0%	0	
4.18	Supervision	LS	%	5%	6	
Roadway Analysis Nontechnical Subtotal					20	
4.19	Coordination	LS	%	3%	4	
4. Roadway Analysis Total					126	

Project Activity 4: Roadway Analysis

Task No.	Task	Units	No of Units	Hours/ Unit	SUPPL EMENT	Comments
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Technical Meetings

Typical Section	EA					
Pavement	EA					
Access Management	EA					
15% Line and Grade	EA					
Driveways	EA					
Local Governments (cities, counties, MPO)	EA					
Work Zone Traffic Control	EA					
30/60/90/100% Comment Review Meeting:	EA					
Other Meetings	EA		1	8		
Subtotal Technical Meetings					0	
Progress Meetings	EA					
Phase Review Meetings	EA					

Total Meetings					0	
					Carries to 4 15	

Note: Project Manager attendance at progress, phase and field review meetings are manually entered on General Task 3

Project Activity 5: Roadway Plans

Estimator:

0
0

Task No.	Task	Scale	Units	No. of Units	SUPPLEMENTAL	No. of Sheets	Total Hours	Comments
5.1	Key Sheet		Sheet	1	2	1	2	Update for SMF. Does Not Include AAF
5.2	Summary of Pay Items Including Quantity Input		Sheet	0	0	0	0	
5.3	Drainage Map		Sheet	1	24	1	24	Update for SMF. Does Not Include AAF
5.4	Interchange Drainage Map		Sheet	0	0	0	0	
5.5	Typical Section Sheets		Sheet	0	0	0	0	
5.6	General Notes/Pay Item Notes		Sheet	0	0	0	0	
5.7	Summary of Quantities		Sheet	0	0	0	0	
5.8	Box Culvert Data Sheet		Sheet	0	6	0	0	
5.9	Bridge Hydraulics Recommendation Sheets		Sheet	0	36	0	0	
5.10	Summary of Drainage Structures		Sheet	0	0	0	0	
5.11	Optional Pipe/Culvert Material		Sheet	0	0	0	0	
5.12	Project Layout		Sheet	0	12	0	0	
5.13	Plan/Profile Sheet		Sheet	0	0	0	0	
5.14	Profile Sheet		Sheet	0	7	0	0	Does Not Include AAF
5.15	Plan Sheet		Sheet	0	7	0	0	Does Not Include AAF
5.16	Special Profile		Sheet	0	0	0	0	
5.17	Back of Sidewalk Profile Sheet		Sheet	0	0	0	0	
5.18	Interchange Layout Sheet		Sheet	0	0	0	0	
5.19	Ramp Terminal Details (Plan View)		Sheet	0	0	0	0	
5.20	Intersection Layout Details		Sheet	0	0	0	0	

Project Activity 5: Roadway Plans

Task No.	Task	Scale	Units	No. of Units	SUPPLEMENTAL	No. of Sheets	Total Hours	Comments
5.21	Miscellaneous Detail Sheets		Sheet	0	24	0	0	
5.22	Drainage Structure Sheet (Per Structure)		EA	8	3	4	24	2 Outfall / 2 Control Structures Plus 4 Add Struc
5.23	Miscellaneous Drainage Detail Sheets		Sheet	2	24	2	48	Control Structure Detail Sheet and One Sheet for Details for temp ditch blocks for treatment during construction.
5.24	Lateral Ditch Plan/Profile		Sheet	0	16	0	0	
5.25	Lateral Ditch Cross Sections		EA	0	0		0	
5.26	Retention/Detention Ponds Detail Sheet		Sheet	1	12	1	12	SMF Only.
5.27	Retention Pond Cross Sections		EA	2	1	1	2	SMF Only.
5.28	Cross-Section Pattern Sheet		Sheet	0	8	0	0	
5.29	Roadway Soil Survey Sheet		Sheet	0	4	0	0	
5.30	Cross Sections		EA	120	0.5		60	For AAF.
5.31	Traffic Control Plan Sheets		Sheet	0	10	0	0	
5.32	Traffic Control Cross Section Sheets		EA	0	0.5		0	
5.33	Traffic Control Detail Sheets		Sheet	0	12	0	0	
5.34	Utility Adjustment Sheets		Sheet	0	8	0	0	
5.35	Selective Clearing and Grubbing		Sheet	0	7	0	0	
5.36	Erosion Control Plan		Sheet		4	0	0	
5.37	SWPPP		Sheet	0	6	0	0	
5.38	Project Control Network Sheet		Sheet	0	0	0	0	
5.39	Environmental Detail Sheets		LS	0	0		0	
5.40	Utility Verification Sheet (SUE Data)		Sheet	0	0	0	0	
Roadway Plans Technical Subtotal							10	172

Project Activity 5: Roadway Plans

Task No.	Task	Scale	Units	No. of Units	SUPPLEMENTAL	No. of Sheets	Total Hours	Comments
5.41	Quality Assurance/Quality Control		LS	%	5%		9	
5.42	Supervision		LS	%	5%		9	
5. Roadway Plans Total							10	
							190	

Project Activity 6: Drainage Analysis

Estimator:

0
0

Task No.	Task	Units	No of Units	Hours/ Unit	SUPPLEMENT	Comments
6.1	Determine Base Clearance Water Elevation	Per Location	0	0	0	
6.2	Pond Siting Analysis	Per Basin	2	16	32	Siting Analysis for SMF and for FCP.
6.3	Design of Cross Drains	EA	0	0	0	
6.4	Design of Roadway Ditches	Per Ditch Mile	0	0	0	
6.5	Design of Outfalls	EA	0	0	0	
6.6	Design of Stormwater Management Facility (Offsite Pond)	EA		40	0	Modifications to Pond 1-A, NW Quad of Dallas Blvd Interchange - Covered under Original Agreement
6.7	Design of Stormwater Management Facility (Roadside Ditch as Linear Pond or Infield Pond)	Per System	0	0	0	
6.8	Design of Flood Plain Compensation Area	Per Encroachment	0	0	0	SJRWMD Has Requested Floodplain Impact Calcs Which Will Be Covered by Hours in Original Proposal.
6.9	Design of Storm Drains	EA	8	2	16	For SMF. Does Not Include AAF.
6.10	Optional Culvert Material	LS	0	0	0	
6.11	French Drain Systems	Per 1000 Feet of French Drain	0	0	0	
6.12	Drainage Wells	EA	0	0	0	
6.13	Drainage Design Documentation Report	LS	1	16	16	For SMF. Does Not Include AAF.
6.14	Bridge Hydraulic Report	EA	0	0	0	
6.15	Temporary Drainage Analysis	LS	1	0	0	
6.16	Cost Estimate	LS		8	0	
6.17	Technical Special Provisions	LS	1	0	0	

Project Activity 6: Drainage Analysis

Task No.	Task	Units	No of Units	Hours/ Unit	SUPPL EMENT	Comments
6.18	Other Drainage Analysis	LS	1	0	0	
Drainage Analysis Technical Subtotal						64
6.19	Field Reviews	LS	0	0	0	
6.20	Technical Meetings	LS	1	8	8	
6.21	Quality Assurance/Quality Control	LS	%	5%	4	
6.22	Independent Peer Review	LS	%	0%	0	
6.23	Supervision	LS	%	5%	4	
Drainage Analysis Nontechnical Subtotal						16
6.24	Coordination	LS	%	3%	2	
6. Drainage Analysis Total						82

Technical Meetings

Base Clearance Water Elevation	EA			
Pond Siting	EA			
Agency	EA	1	8	8
Local Governments (cities, counties)	EA			
CFX/Atkins Drainage	EA			
Other Meetings (Bi-weekly Team Meetings)	EA			
Subtotal Technical Meetings				

Progress Meetings (if required by CFX)
Phase Review Meetings

Total Meetings

8
Carries to 6.20

Note: Project Manager attendance at progress, phase and field review meetings are manually entered on General Task 3

Project Activity 8: Environmental Permits, Compliance and Clearances

Estimator:

Updated 080818

0
0

Task No.	Task	Units	No. of Units	Hours/ Units	SUPPLEMENTAL	Comments
8.1	Preliminary Project Research	LS	1	0	0	
8.2	Complete Permit Involvement Form	LS	1	0	0	
8.3	Establish Wetland Jurisdictional Lines and Assessments	LS	1	8	8	Coordination w/Atkins for AAF.
8.4	Agency Verification of Wetland Data	LS	1	0	0	
8.5	Complete And Submit All Required Permit Applications	LS	1	15	15	For SMF. Does Not Include AAF.
8.6	Prepare Dredge and Fill Sketches	LS	1		0	TBD
8.7	Prepare USCG Permit Sketches	LS	1	0	0	Not Included
8.8	Prepare Water Management District Right-of-Way Occupancy Sketches	LS	1	0	0	
8.9	Prepare Coastal Construction Control Line (CCCL) Permit Application	LS	1	0	0	
8.10	Prepare Tree Permit Information	LS	1	0	0	Not Included
8.11	Mitigation Coordination and Meetings	LS	1	0	0	RHPZ & Wetlands - Not Required
8.12	Mitigation Design	LS	1	0	0	Not Included
8.13	Environmental Clearances and Technical Support	LS	1	0	0	Not Included
8.14	Environmental Clearances and Reevaluations	LS	1	0	0	Not Included
8.15	Other Environmental Permits	LS	1	0	0	Not Included
Environmental Permits, Compliance and Clearances Technical Subtotal					23	
8.16	Technical Meetings	LS	1	0	0	Meetings are listed below
8.17	Quality Assurance/Quality Control	LS	%	5%	1	
8.18	Supervision	LS	%	5%	1	
Environmental Permits, Compliance and Clearances Nontechnical Subtotal					2	
8.19	Coordination	LS	%	3%	1	
8. Environmental Permits, Compliance and Clearances Total					26	

Project Activity 8: Environmental Permits, Compliance and Clearances

Task No.	Task	Units	No. of Units	Hours/ Units	SUPPLEMENTAL	Comments
Technical Meetings						
	WMD	EA				
	ACOE	EA				
	USCG	EA				
	USFWS	EA				
	FFWCC	EA				
	FDOT	EA				
	Other Meetings	EA				
	Subtotal Technical Meetings				0	
	Progress Meetings	EA	0	0	0	
	Phase Review Meetings	EA	0	0	0	
	Total Meetings				0	
					Carries to 8.16	

Note: Project Manager attendance at progress, phase and field review meetings are manually entered on General Task 3

Antillian Engineering

**SR 528 ECONLOCKHATCHEE RIVER BRIDGE WIDENING TO DALLAS
BLVD**

PROJECT № 528-131

Scope of Services Summary

Project Description:

4.05 Geotechnical Investigation for New Proposed SWF

- Perform site reconnaissance and utility clearance coordination.
- Perform a total of 2 auger borings to a depth of 20 feet each for the water retention area on the NW corner of the Dallas Boulevard interchange
- Visually examine all recovered soil samples in the laboratory utilizing the Unified Soil Classification System. Perform laboratory tests on selected representative soil samples, including grain size analysis, Atterberg limits, organic content, natural moisture content, LBR and corrosion series testing as appropriate.
- Collect groundwater level measurements and estimate wet seasonal high groundwater tables.

ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT

Name of Project: SR 528 Econlockhatchee Bridge Widening
 County: Orange
 FPN: 528-131
 FAP No: N/A

Consultant Name: PB/Andrian Engineering Associates, Inc
 enter consultants proj. number
 Date: 4/22/2016

Staff Classification	Total Staff Hours From Summary	Chief Eng	Senior Eng	Project Eng	Eng Intern	Sr. Eng Tech	CADD	Clerical	Staff Classification 8	Staff Classification 9	Staff Classification 10	Staff Classification 11	Staff Classification 12	SH By Activity	Salary Cost By Activity	Average Rate Per Task
3 Project General and Project Common Tasks	0	\$0.00	\$135.83	\$133.38	\$0.00	\$0.00	\$83.06	\$0.00	0	0	0	0	0	0	\$0	\$0/VOL
4 Roadway Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
5 Roadway Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
6a Drainage Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
6b Drainage Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
7 Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
8 Environmental Permits, Compliance & Clearances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
9 Structures - Misc. Tasks, Dwg's, Non-Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
10 Structures - Bridge Development Report	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
11 Structures - Temporary Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
12 Structures - Short Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
13 Structures - Medium Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
14 Structures - Structural Steel Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
15 Structures - Segmental Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
16 Structures - Movable Span	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
17 Structures - Retaining Walls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
18 Structures - Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
19 Signaling & Pavement Marking Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
20 Signaling & Pavement Marking Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
21 Signalization Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
22 Signalization Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
23 Lighting Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
24 Lighting Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
25 Landscape Architecture Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
26 Landscape Architecture Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
27 Survey (Field & Office Support)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
28 Photogrammetry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
29 Mapping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
30 Terrestrial Mobile LIDAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
31 Architecture Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
32 Noise Barriers Impact Design Assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
33 Intelligent Transportation Systems Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
34 Intelligent Transportation Systems Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0/VOL
35 Geotechnical	42	0	11	29	0	0	2	0	0	0	0	0	0	42	\$5,526.13	\$131.57
Total Staff Hours	42	\$0.00	\$1,491.83	\$3,868.02	\$0.00	\$0.00	\$166.18	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	42	\$5,526.13	\$131.57

Survey Field Days by Subconsultant
 4 - Person Crew

SALARY RELATED COSTS:
 OVERHEAD:
 PROFIT
 FCM (Facilities Capital Cost Money):
 EXPENSES:

Check = \$5,526.13
 1.000

- Notes:
 1. This sheet to be used by Prime Consultant to calculate the Grand Total fee.
 2. Manually enter fee from each subconsultant. Unused subconsultant rows may be hidden.

135.63485	133.37162	0	0	83.06553
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Survey (Field - if by Prime)
 SUBTOTAL ESTIMATED FEE:
 Subconsultant: Sub 1
 Subconsultant: Sub 2
 Subconsultant: Sub 3
 Subconsultant: Sub 4
 Subconsultant: Sub 5
 Subconsultant: Sub 6
 Subconsultant: Sub 7
 Subconsultant: Sub 8
 Subconsultant: Sub 9
 Subconsultant: Sub 10
 Subconsultant: Sub 11
 Subconsultant: Sub 12

\$5,526.13
 \$0.00
 \$0.00
 \$0.00
 \$0.00
 \$0.00
 \$0.00
 \$0.00
 \$0.00
 \$0.00
 \$0.00
 \$0.00

SUBTOTAL ESTIMATED FEE:
 Geotechnical Field and Lab Testing
 Optional Services
 GRAND TOTAL ESTIMATED FEE:

\$5,526.13
 \$2,363.00
 \$7,889.13
 \$0.00
 \$7,889.13

35. Geotechnical

Estimator: PGS

12/9/2015

ANTILLIAN scope for: Roadway, Drainage and Misc Structures

SR 528 Econlockhatchee Bridge Widening
528-131

Representing	Print Name	Signature / Date
FDOT District	CFX	
Consultant Name	Antillian Engineering Associates, Inc.	

NOTE: Signature Block is optional, per District preference

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
	Roadway					
35.1	Document Collection and Review	LS	1	2	2	
35.2	Develop Detailed Boring Location Plan	LS	1	1	1	
35.3	Stake Borings/Utility Clearance	Boring	2	0.5	1	FPC Pond: 0 AB to 10 ft NW Pond:: 2 AB to 20 ft, NW corner Dallas Blvd interchange Incl. travel time and time to prepare locate request
35.4	Muck Probing	Crew Day	0	8	0	
35.5	Coordinate and Develop MOT Plans for Field Investigation	EA	0	8	0	
35.6	Drilling Access Permits	Location	0	0	0	
35.7	Property Clearances	EA	0	0.5	0	
35.8	Groundwater Monitoring	EA	1	2	2	Stabilized groundwater measurements (following day)
35.9	LBR/Resilient Modulus Sampling	EA	0	0.75	0	
35.10	Coordination of Field Work	100 lf of boring	0.4	1	1	1 hr minimum
35.11	Soil and Rock Classification - Roadway	100 lf of boring	0.4	1.5	1	
35.12	Design LBR	LS	0	4	0	
35.13	Laboratory Data	100 lf of boring	0.4	0.5	0	See 35.17
35.14	Seasonal High Water Table	Boring	0.4	0.1	0	See 35.17
35.15	Parameters for Water Retention Areas	EA	1	2	2	Pond in NW corner Dallas Blvd interchange

35. Geotechnical

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
35.16	Delineate Limits of Unsuitable Material	Cross-section	2	0.25	1	Assume 20% of mainline (18)
35.17	Electronic Files for Cross-Sections	100 lf of boring	0.4	1	1	1 hr min., incl 35.13 Laboratory Data and 35.14 Seasonal High Water Table
35.18	Embankment Settlement and Stability	Embankment Boring	0	2	0	
35.19	Protection of Existing Structures	LS	0	4	0	
35.20	Stormwater Volume Recovery and/or Background Seepage Analysis	EA	0	4	0	
35.21	Geotechnical Recommendations	LS	1	8	8	
35.22	Pavement Condition Survey and Pavement Evaluation Report	LS	1	0	0	
35.23	Preliminary Roadway Report	LS	1	8	8	30% submittal
35.24	Final Report	EA	4	2	8	60%, 90%, 100%, final submittals
35.25	Auger Boring Drafting	100 lf boring	0.4	3	1	
35.26	SPT Boring Drafting	100 lf boring	0	5	0	
Roadway Geotechnical Subtotal					37	
Structural Geotechnical Subtotal					0	
Geotechnical Technical Subtotal					37	
35.50	Technical Special Provisions	EA	0	0	0	Assume not required
35.51	Field Reviews	LS	0	4	0	
35.52	Technical Meetings	LS	1	0	0	Meetings listed below
35.53	Quality Assurance/Quality Control	LS	%	5%	2	
35.54	Supervision	LS	%	5%	2	
Geotechnical Nontechnical Subtotal					4	
35.55	Coordination	LS	%	3%	1	
35. Geotechnical Total					42	

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	PM Attendance at Meeting Required?	Number
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35. Geotechnical

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
	Kickoff Meeting with CFX	EA	0	2	0	0
	Boring Layout Approval	EA	0	0	0	0
	Attend in BDR Review Meeting	EA	0	0	0	0
	30/60/90% Submittal Review	EA	0	2	0	0
	Other Meetings	EA	0	0	0	0
	Subtotal Technical Meetings				0	
	Progress Meetings (if required by CFX)	EA	0	2	0	0
	Phase Review Meetings	EA	0	2	0	--
	Total Meetings		2	2	0	0
	Total Project Manager Meetings (carries to Tab 3)					

Carries to 33.18

Carries to Tab 3

SUMMARY GEOTECHNICAL & CONTAMINATION SERVICES**FEE SCHEDULE:** 2015**PROJECT:** SR 528 Econlockhatchee Bridge Widening**PREPARED BY:** PGS**FPID:** **DATE:** 4/22/2016

Item	Description	Unit	Unit Price	No of Units	Cost
01.00.00	GEOTECHNICAL FIELD EXPLORATION				
01.01.00	Crew & Equipment Mobilization:				
01.01.01	Truck Rig Mobilization	EA	\$450.00	0	\$ -
01.01.02	Mudbug Mobilization	EA	\$500.00	1	\$ 500.00
01.01.03	Track Rig Mobilization	EA	\$3,000.00	0	\$ -
01.01.04	Barge (small) Mobilization	EA	\$8,500.00	0	\$ -
01.01.05	Barge (offshore) Mobilization	EA	N/A	0	\$ -
01.01.06	CPT Rig Mobilization	EA	\$500.00	0	\$ -
01.01.07	Support Boat Mobilization	EA	\$200.00	0	\$ -
01.01.08	Pavement Coring Equipment Mobilization	EA	\$250.00	0	\$ -
01.01.09	Soil Survey/Coring/GPR Crew Mobilization	EA	\$250.00	0	\$ -
01.01.10	Tri Pod Rig Mobilization	EA	\$2,500.00	0	\$ -
01.01.11	Low Clearance Rig Mobilization	EA	N/A	0	\$ -
01.01.12	Drill Rig Remobilization	EA	\$150.00	0	\$ -
01.02.00	Auger Borings (ASTM D-1452):				
01.02.01	Truck Auger Borings	LF	\$9.00	0	\$ -
01.02.02	Mudbug Auger Borings	LF	\$11.25	40	\$ 450.00
01.02.03	Track Auger Borings	LF	\$13.50	0	\$ -
01.03.00	Standard Penetration Test Borings (ASTM D-1586):				
01.03.01	SPT - Truck/MB:				
01.03.01A	SPT - Truck/MB: 0-50 FT	LF	\$12.00	0	\$ -
01.03.01B	SPT - Truck/MB: 50-100 FT	LF	\$14.00	0	\$ -
01.03.01C	SPT - Truck/MB: 100-150 FT	LF	\$21.00	0	\$ -
01.03.01D	SPT - Truck/MB: 150-200 FT	LF	\$28.00	0	\$ -
01.03.01E	SPT - Truck/MB: 200-250 FT	LF	\$38.00	0	\$ -
01.03.01F	SPT - Truck/MB: 250-300 FT	LF	N/A	0	\$ -
01.03.02	SPT - B/T/A:				
01.03.02A	SPT- B/T/A: 0-50 FT	LF	N/A	0	\$ -
01.03.02B	SPT- B/T/A: 50-100 FT	LF	N/A	0	\$ -

SUMMARY GEOTECHNICAL & CONTAMINATION SERVICES**FEE SCHEDULE:** 2015**PROJECT:** SR 528 Econlockhatchee Bridge Widening**PREPARED BY:** PGS**FPID:****DATE:** 4/22/2016

Item	Description	Unit	Unit Price	No of Units	Cost
01.03.02C	SPT- B/T/A: 100-150 FT	LF	N/A	0	\$ -
01.03.02D	SPT- B/T/A: 150-200 FT	LF	N/A	0	\$ -
01.03.02E	SPT- B/T/A: 200-250 FT	LF	N/A	0	\$ -
01.03.02F	SPT- B/T/A: 250-300 FT	LF	N/A	0	\$ -
01.04.00	Cone Penetration Test Soundings (ASTM D-3441):				
01.04.01	CPT - Truck/MB:				
01.04.01A	CPT - Truck/MB: 0-50 FT	LF	\$11.50	0	\$ -
01.04.01B	CPT - Truck/MB: 50-100 FT	LF	\$11.50	0	\$ -
01.04.01C	CPT - Truck/MB: 100-150 FT	LF	\$12.50	0	\$ -
01.04.01D	CPT - Truck/MB: 150-200 FT	LF	N/A	0	\$ -
01.04.01E	CPT - Truck/MB: 200-250 FT	LF	N/A	0	\$ -
01.04.01F	CPT - Truck/MB: 250-300 FT	LF	N/A	0	\$ -
01.04.02	CPT - B/T/A:				
01.04.02A	CPT - B/T/A: 0-50 FT	LF	N/A	0	\$ -
01.04.02B	CPT - B/T/A: 50-100 FT	LF	N/A	0	\$ -
01.04.02C	CPT - B/T/A: 100-150 FT	LF	N/A	0	\$ -
01.04.02D	CPT - B/T/A: 150-200 FT	LF	N/A	0	\$ -
01.04.02E	CPT - B/T/A: 200-250 FT	LF	N/A	0	\$ -
01.04.02F	CPT - B/T/A: 250-300 FT	LF	N/A	0	\$ -
01.05.00	Rock Coring - HW Barrel (ASTM D-2113):				
01.05.01	Rock Coring - Truck/MB:				
01.05.01A	Rock Coring - Truck/MB: 0-50 FT	LF	\$35.00	0	\$ -
01.05.01B	Rock Coring - Truck/MB: 50-100 FT	LF	\$38.00	0	\$ -
01.05.01C	Rock Coring - Truck/MB: 100-150 FT	LF	\$43.00	0	\$ -
01.05.01D	Rock Coring - Truck/MB: 150-200 FT	LF	\$48.00	0	\$ -
01.05.01E	Rock Coring - Truck/MB: 200-250 FT	LF	\$55.00	0	\$ -
01.05.01F	Rock Coring - Truck/MB: 250-300 FT	LF	N/A	0	\$ -
01.05.02	Rock Coring - B/T/A:				
01.05.02A	Rock Coring - B/T/A: 0-50 FT	LF	N/A	0	\$ -

SUMMARY GEOTECHNICAL & CONTAMINATION SERVICES**FEE SCHEDULE:** 2015**PROJECT:** SR 528 Econlockhatchee Bridge Widening**PREPARED BY:** PGS**FPID:****DATE:** 4/22/2016

Item	Description	Unit	Unit Price	No of Units	Cost
01.05.02B	Rock Coring - B/T/A: 50-100 FT	LF	N/A	0	\$ -
01.05.02C	Rock Coring - B/T/A: 100-150 FT	LF	N/A	0	\$ -
01.05.02D	Rock Coring - B/T/A: 150-200 FT	LF	N/A	0	\$ -
01.05.02E	Rock Coring - B/T/A: 200-250 FT	LF	N/A	0	\$ -
01.05.02F	Rock Coring - B/T/A: 250-300 FT	LF	N/A	0	\$ -
01.06.00	Grout Seal Boreholes:				
01.06.01	Grout Boreholes - Truck/MB:				
01.06.01A	Grout - Truck/MB: 0-50 FT	LF	\$4.50	0	\$ -
01.06.01B	Grout - Truck/MB: 50-100 FT	LF	\$5.00	0	\$ -
01.06.01C	Grout - Truck/MB: 100-150 FT	LF	\$5.50	0	\$ -
01.06.01D	Grout - Truck/MB: 150-200 FT	LF	\$6.00	0	\$ -
01.06.01E	Grout - Truck/MB: 200-250 FT	LF	\$6.50	0	\$ -
01.06.01F	Grout - Truck/MB: 250-300 FT	LF	N/A	0	\$ -
01.06.02	Grout Boreholes - B/T/A:				
01.06.02A	Grout - B/T/A: 0-50 FT	LF	N/A	0	\$ -
01.06.02B	Grout - B/T/A: 50-100 FT	LF	N/A	0	\$ -
01.06.02C	Grout - B/T/A: 100-150 FT	LF	N/A	0	\$ -
01.06.02D	Grout - B/T/A: 150-200 FT	LF	N/A	0	\$ -
01.06.02E	Grout - B/T/A: 200-250 FT	LF	N/A	0	\$ -
01.06.02F	Grout - B/T/A: 250-300 FT	LF	N/A	0	\$ -
01.07.00	Temporary Casing:				
01.07.01	3" Temp. Casing - Truck/MB:				
01.07.01A	3" Casing - Truck/MB: 0-50 FT	LF	\$9.00	0	\$ -
01.07.01B	3" Casing - Truck/MB: 50-100 FT	LF	\$10.00	0	\$ -
01.07.01C	3" Casing - Truck/MB: 100-150 FT	LF	\$12.00	0	\$ -
01.07.01D	3" Casing - Truck/MB: 150-200 FT	LF	\$14.00	0	\$ -
01.07.01E	3" Casing - Truck/MB: 200-250 FT	LF	\$16.00	0	\$ -
01.07.01F	3" Casing - Truck/MB: 250-300 FT	LF	N/A	0	\$ -
01.07.02	3" Temp. Casing - B/T/A:				

SUMMARY GEOTECHNICAL & CONTAMINATION SERVICES**FEE SCHEDULE:** 2015**PROJECT:** SR 528 Econlockhatchee Bridge Widening**PREPARED BY:** PGS**FPID:****DATE:** 4/22/2016

Item	Description	Unit	Unit Price	No of Units	Cost
01.07.02A	3" Casing - B/T/A: 0-50 FT	LF	N/A	0	\$ -
01.07.02B	3" Casing - B/T/A: 50-100 FT	LF	N/A	0	\$ -
01.07.02C	3" Casing - B/T/A: 100-150 FT	LF	N/A	0	\$ -
01.07.02D	3" Casing - B/T/A: 150-200 FT	LF	N/A	0	\$ -
01.07.02E	3" Casing - B/T/A: 200-250 FT	LF	N/A	0	\$ -
01.07.02F	3" Casing - B/T/A: 250-300 FT	LF	N/A	0	\$ -
01.07.03	4" Temp. Casing - Truck/MB:				
01.07.03A	4" Casing - Truck/MB: 0-50 FT	LF	\$10.00	0	\$ -
01.07.03B	4" Casing - Truck/MB: 50-100 FT	LF	\$12.00	0	\$ -
01.07.03C	4" Casing - Truck/MB: 100-150 FT	LF	\$14.00	0	\$ -
01.07.03D	4" Casing - Truck/MB: 150-200 FT	LF	\$16.00	0	\$ -
01.07.03E	4" Casing - Truck/MB: 200-250 FT	LF	\$18.00	0	\$ -
01.07.03F	4" Casing - Truck/MB: 250-300 FT	LF	N/A	0	\$ -
01.07.04	4" Temp. Casing - B/T/A:				
01.07.04A	4" Casing - B/T/A: 0-50 FT	LF	N/A	0	\$ -
01.07.04B	4" Casing - B/T/A: 50-100 FT	LF	N/A	0	\$ -
01.07.04C	4" Casing - B/T/A: 100-150 FT	LF	N/A	0	\$ -
01.07.04D	4" Casing - B/T/A: 150-200 FT	LF	N/A	0	\$ -
01.07.04E	4" Casing - B/T/A: 200-250 FT	LF	N/A	0	\$ -
01.07.04F	4" Casing - B/T/A: 250-300 FT	LF	N/A	0	\$ -
01.08.00	Extra SPT Samples:				
01.08.01	Extra SPT Samples - Truck/MB:				
01.08.01A	Extra SPT Samples - Truck/MB: 0-50 FT	EA	\$35.00	0	\$ -
01.08.01B	Extra SPT Samples - Truck/MB: 50-100 FT	EA	\$37.00	0	\$ -
01.08.01C	Extra SPT Samples - Truck/MB: 100-150 FT	EA	\$75.00	0	\$ -
01.08.01D	Extra SPT Samples - Truck/MB: 150-200 FT	EA	\$90.00	0	\$ -
01.08.01E	Extra SPT Samples - Truck/MB: 200-250 FT	EA	\$105.00	0	\$ -
01.08.01F	Extra SPT Samples - Truck/MB: 250-300 FT	EA	N/A	0	\$ -
01.08.02	Extra SPT Samples - B/T/A:				

SUMMARY GEOTECHNICAL & CONTAMINATION SERVICES**FEE SCHEDULE:** 2015**PROJECT:** SR 528 Econlockhatchee Bridge Widening**PREPARED BY:** PGS**FPID:** **DATE:** 4/22/2016

Item	Description	Unit	Unit Price	No of Units	Cost
01.08.02A	Extra SPT Samples - B/T/A: 0-50 FT	EA	N/A	0	\$ -
01.08.02B	Extra SPT Samples - B/T/A: 50-100 FT	EA	N/A	0	\$ -
01.08.02C	Extra SPT Samples - B/T/A: 100-150 FT	EA	N/A	0	\$ -
01.08.02D	Extra SPT Samples - B/T/A: 150-200 FT	EA	N/A	0	\$ -
01.08.02E	Extra SPT Samples - B/T/A: 200-250 FT	EA	N/A	0	\$ -
01.08.02F	Extra SPT Samples - B/T/A: 250-300 FT	EA	N/A	0	\$ -
01.09.00	Undisturbed Samples (ASTM D-1587):				
01.09.01	Undisturbed Samples - Truck/MB:				
01.09.01A	Undisturbed Samples - Truck/MB: 0-50 FT	EA	\$120.00	0	\$ -
01.09.01B	Undisturbed Samples - Truck/MB: 50-100 FT	EA	\$140.00	0	\$ -
01.09.01C	Undisturbed Samples - Truck/MB: 100-150 FT	EA	\$240.00	0	\$ -
01.09.01D	Undisturbed Samples - Truck/MB: 150-200 FT	EA	\$300.00	0	\$ -
01.09.02	Undisturbed Samples - B/T/A:				
01.09.02A	Undisturbed Samples - B/T/A: 0-50 FT	EA	N/A	0	\$ -
01.09.02B	Undisturbed Samples - B/T/A: 50-100 FT	EA	N/A	0	\$ -
01.09.02C	Undisturbed Samples - B/T/A: 100-150 FT	EA	N/A	0	\$ -
01.09.02D	Undisturbed Samples - B/T/A: 150-200 FT	EA	N/A	0	\$ -
01.10.00	Drill Rig and Crew (Clearing/Difficult Access)				
01.10.01	Drill Rig and 2-Man Crew - Truck/MB	HR	\$200.00	0	\$ -
01.10.02	Drill Rig and 2-Man Crew - B/T/A	HR	\$300.00	0	\$ -
01.10.03	Drill Rig and 3-Man Crew - Truck/MB	HR	\$250.00	1	\$ 250.00
01.10.04	Drill Rig and 3-Man Crew - B/T/A	HR	\$375.00	0	\$ -
01.11.00	Drill Mud Contain/Disposal				
01.11.01	Drill Mud Contain/Disposal - Truck/MB	EA	\$200.00	0	\$ -
01.11.02	Drill Mud Contain/Disposal - B/T/A	EA	\$400.00	0	\$ -
01.12.00	Hand Probing/Wash Borings				
01.12.01	Hand Probing/Wash Borings - 2 Person Crew	HR	\$125.00	0	\$ -
01.12.02	Hand Probing/Wash Borings - 3 Person Crew	HR	\$175.00	0	\$ -
01.13.00	Field Permeability Test				

SUMMARY GEOTECHNICAL & CONTAMINATION SERVICES**FEE SCHEDULE:** 2015**PROJECT:** SR 528 Econlockhatchee Bridge Widening**PREPARED BY:** PGS**FPID:** **DATE:** 4/22/2016

Item	Description	Unit	Unit Price	No of Units	Cost
01.13.01	Field Permeability Test (0-10')	EA	\$300.00	2	\$ 600.00
01.13.02	Field Permeability Test (10-25')	EA	\$400.00	0	\$ -
01.14.00	Temporary Piezometer				
01.14.01	Temporary Piezometer (0-50')	LF	\$25.00	0	\$ -
01.14.02	Temporary Piezometer Locking Assembly	EA	N/A	0	\$ -
01.15.00	Pavement Cores (Excluding MOT)	EA	\$100.00	0	\$ -
01.16.00	Ground Surface D.R.I	EA	\$500.00	0	\$ -
01.17.00	Field Vane Shear Strength	EA	\$400.00	0	\$ -
01.18.00	Dilatometer Sounding	HR	\$240.00	0	\$ -
01.19.00	Ground Penetrating Radar Crew - 2 Person	HR	\$250.00	0	\$ -
01.20.00	CPT Data Reduction	EA	N/A	0	\$ -
01.21.00	Maintenance of Traffic				
01.21.01	MOT - Barricades	DAY	\$50.00	0	\$ -
01.21.02	MOT - Flashing Arrowboard	DAY	\$125.00	0	\$ -
01.21.03	MOT - Law Enforcement Officer	DAY	\$400.00	0	\$ -
01.21.04	MOT - Crash Truck	DAY	\$1,500.00	0	\$ -
01.21.05	MOT - Support Vehicle	DAY	\$40.00	0	\$ -
01.21.06	MOT - Signs	DAY	\$40.00	1	\$ 40.00
01.21.07	MOT - Certified Traffic Control Specialist	HR	\$75.00	0	\$ -
01.22.00	Other Support Services				
01.22.01	Support Vehicle	DAY	\$50.00	0	\$ -
01.22.02	Support Boat	DAY	\$200.00	0	\$ -
01.22.03	Heavy Equipment	DAY	N/A	0	\$ -
01.22.04	GPS Unit	DAY	\$45.00	0	\$ -
02.00.00	GEOTECHNICAL LABORATORY TESTING SERVICES				
02.01.00	Grain Size Analysis:				
02.01.01	Full Gradation	EA	\$60.00	4	\$ 240.00
02.01.02	Single Sieve	EA	\$36.00	0	\$ -
02.02.00	Hydrometer (FM 1-T 88)	EA	\$150.00	0	\$ -

SUMMARY GEOTECHNICAL & CONTAMINATION SERVICES**FEE SCHEDULE:** 2015**PROJECT:** SR 528 Econlockhatchee Bridge Widening**PREPARED BY:** PGS**FPID:** **DATE:** 4/22/2016

Item	Description	Unit	Unit Price	No of Units	Cost
02.03.00	Organic Content (FM 1-T 267)	EA	\$40.00	1	\$ 40.00
02.04.00	Atterberg Limits:				
02.04.01	Atterberg - Liquid Limit	EA	\$38.00	1	\$ 38.00
02.04.02	Atterberg - Plastic Limit	EA	\$38.00	1	\$ 38.00
02.05.00	Natural Moisture Content (FM 1-T 265)	EA	\$11.00	2	\$ 22.00
02.06.00	Unit Weight	EA	\$40.00	0	\$ -
02.07.00	Consolidation (FM 1-T 216)	EA	\$450.00	0	\$ -
02.08.00	Permeability (FM 1-T 215/5-513)	EA	\$250.00	0	\$ -
02.09.00	Corrosion Series (pH, Sulfate, Chloride, Resistivity)	EA	\$145.00	1	\$ 145.00
02.11.00	Unconfined Compression:				
02.11.01	Unconfined Comp. - Soil	EA	\$225.00	0	\$ -
02.11.02	Unconfined Comp. - Rock	EA	\$150.00	0	\$ -
02.12.00	Limerock Bearing Ratio (FM 5-515)	EA	\$330.00	0	\$ -
02.13.00	Specific Gravity (FM 1-T 100)	EA	\$55.00	0	\$ -
02.14.00	Bitumen Extraction (FM 1-T 164)	EA	\$90.00	0	\$ -
02.15.00	Aggregate Gradation (FM 1-T 30)	EA	\$60.00	0	\$ -
02.16.00	Direct Shear (ASTM D-3080)	EA	\$230.00	0	\$ -
02.17.00	Shrinkage Factor (FM 1-T 092)	EA	\$50.00	0	\$ -
02.18.00	Swell Potential (ASTM D-4546)	EA	\$50.00	0	\$ -
02.19.00	Proctor Compaction (FM 5-521/525)	EA	\$100.00	0	\$ -
02.20.00	Splitting Tensile (ASTM D-3967)	EA	\$150.00	0	\$ -
03.00.00	GEOTECHNICAL ENGINEERING AND TECHNICAL SERVICES				
03.01.00	Senior Engineer	HR	\$135.63	11	\$ 1,491.93
03.03.00	Project Engineer	HR	\$133.38	29	\$ 3,868.02
03.04.00	CADD/Computer Technician	HR	\$83.09	2	\$ 166.18
	GEOTECHNICAL MAN HOUR TOTAL	42	GEOTECHNICAL TOTAL		\$ 7,889.13
04.00.00	CONTAMINATION FIELD EXPLORATION				
CONTAMINATION MAN HOUR TOTAL		0	CONTAMINATION TOTAL		\$ -
AFP ADJUSTMENT					\$ -

SUMMARY GEOTECHNICAL & CONTAMINATION SERVICES

FEE SCHEDULE: 2015

PROJECT: SR 528 Econlockhatchee Bridge Widening

PREPARED BY: PGS

FPID:

DATE: 4/22/2016

Item	Description	Unit	Unit Price	No of Units	Cost
PROPOSAL MAN HOUR TOTAL		42	PROPOSAL TOTAL		\$ 7,889.13



February 5, 2016

From: Danny Williams, III PSM

Re: Central Florida Expressway Authority (CFX)
SR 528 Bridge Replacement over the Econ River
Project No. 528-131
Contract No. 001098

Additional Scope of Services

WBO Design & Engineering, Inc. additional scope of services for the survey of the pond and boarding Roadway at NW Quadrant of Dallas Interchange. The office and field survey will include the below referenced tasks.

Survey

- additional horizontal and vertical control as required.
- Pond Site and boarding roadway Survey. NW Quad of Dallas Intersection
- Work Zone Safety. MOT as appropriate to maintain safe work zone to traveling public and field survey crew.
- QA/QC
- Supervision
- Coordination

ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT

SA 1A

Name of Project: SR 528 Bridge Replacement over the Econ River
 County: Orange
 FPN: 0
 FAP No: 528-131

Consultant Name: WBO Design & Engineering, Inc
 Consultant No.: enter consultants proj. number
 Date: 4/22/2016
 Estimator: D. Williams, sub for pond and roadway at NW Dallas

Staff Classification	Project Manager	Sr. Surveyor & Mapper	Surveyor & Mapper	Survey Technician	Clerical	Staff Classification 6	Staff Classification 7	Staff Classification 8	Staff Classification 9	Staff Classification 10	Staff Classification 11	Staff Classification 12	SH	By	Activity	Salary	Cost By	Average Rate Per	Task
3. Project General and Project Common Tasks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
4. Roadway Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
5. Roadway Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
6. Drainage Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
7. Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
8. Environmental Permit, Compliance & Clearances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
9. Structures - Misc. Tasks, Dwg. Non-Tech	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
10. Structures - Bridge Development Report	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
11. Structures - Temporary Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
12. Structures - Short Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
13. Structures - Medium Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
14. Structures - Structural Steel Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
15. Structures - Segmental Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
16. Structures - Movable Span	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
17. Structures - Retaining Walls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
18. Structures - Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
19. Signing & Pavement Marking Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
20. Signing & Pavement Marking Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
21. Signalization Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
22. Signalization Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
23. Lighting Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
24. Lighting Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
25. Landscape Architecture Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
26. Landscape Architecture Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
27. Survey (Field & Office Support)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
28. Photogrammetry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
29. Mapping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
30. Terrestrial Mobile LIDAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
31. Architecture Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
32. Noise Barrier Impact Design Assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
33. Intelligent Transportation Systems Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
34. Intelligent Transportation Systems Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
35. Geotechnical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
Total Staff Hours	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DWO/
Total Staff Cost	\$0.00	\$48.25	\$123.48	\$88.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$23.85
Check =																			\$258.73

Survey Field Days by Subconsultant
 4 - Person Crew

SALARY RELATED COSTS:
 Total Multiplier
 OPERATING MARGIN:
 FCM (Facilities Capital Cost Money):
 EXPENSES:

\$258.73
 \$473.98
 \$82.47
 \$0.00
 \$0.00

Notes:
 1. This sheet to be used by Prime Consultant to calculate the Grand Total fee
 2. Manually enter fee from each subconsultant. Unused subconsultant rows may be hidden.

Survey (Field - if by Prime 2 10 hr days @ \$ 1,902.73 / day
 SUBTOTAL ESTIMATED FEE:
 Subconsultant Enter Name Sub 1
 Subconsultant Sub 2
 Subconsultant Sub 3
 Subconsultant Sub 4
 Subconsultant Sub 5
 Subconsultant Sub 6
 Subconsultant Sub 7
 Subconsultant Sub 8
 Subconsultant Sub 9
 Subconsultant Sub 10
 Subconsultant Sub 11
 Subconsultant Sub 12
 SUBTOTAL ESTIMATED FEE:
 Geotechnical Field and Lab Testing
 SUBTOTAL ESTIMATED FEE:
 Optional Services
 GRAND TOTAL ESTIMATED FEE:

\$3,805.46
 \$4,821.64
 \$0.00
 \$0.00
 \$0.00
 \$0.00
 \$0.00
 \$0.00
 \$0.00
 \$0.00
 \$0.00
 \$0.00
 \$4,821.64
 \$0.00
 \$4,821.64
 \$0.00
 \$4,821.64

Project Activity 27: Survey

Estimator: D Williams
4/8/2016 Sup for pond and boarding roadway NW Quad Dallas, rev

SR 528 Bridge Replacement over the Eon River

Task No.	Task	Units	No of Units	Field Crew Days/Unit	Crew Days	Field Support Hours / Crew Days	Field Support Hours	Office Support Hours / Crew Days	Office Support Hours	Comments
27 1	Horizontal Project Control (HPC)									
	2-Lane Roadway	Mile			0.00		0.00		0.00	
	Multi-lane Roadway	points			0.00		0.00		0.00	
	Interstate	Mile	0.20	3.25	0.65	0.50	0.33	4.00	2.60	Set additional control points for Project Control. This control datum will be based on local project control as provided by CFX (AAF information)
27 2	Vertical PC / Bench Line									
	2-Lane Roadway	Mile			0.00		0.00		0.00	
	Multi-lane Roadway	Mile			0.00		0.00		0.00	
	Interstate	Mile	0.15	1.75	0.2625	0.50	0.13	3.00	0.79	Vertical PC / Bench Line 3 wire bench run thru points set in 27 1. This control datum will be NAVD 88 based on local project control as provided by CFX (AAF information)
27 3	Alignment and Existing R/W Lines									
		mile			0.00		0.00		0.00	N/A
27 4	Aerial Targets			Units/Day						
	400 scale	EA			0.00		0.00		0.00	
	100 scale	EA			0.00		0.00		0.00	N/A
	Interstate	EA			0.00		0.00		0.00	
27 5	Reference Points	"A"		Units/Day						
	2-Lane Roadway	EA			0.00		0.00		0.00	
	Multi-lane Roadway	EA			0.00		0.00		0.00	N/A
	Interstate	EA			0.00		0.00		0.00	
	Reference Points	"B"		Units/Day						
	Non Alignment Points/Approximate	EA			0.00		0.00		0.00	
27 6	Topography/DTM (3D)									
		Mile	0.15	6.50	0.9750	0.25	0.24	4.00	3.90	Topo of pond and boarding roadway at Dallas NW intersection
27 7	Planimetric (2D)									
		Mile			0.00		0.00		0.00	N/A
27 8	Roadway Cross-Sections/Profiles									
		ea			0.00		0.00		0.00	N/A
27 9	Side Street Surveys									
										N/A

Project Activity 27: Survey

Task No.	Task	Units	No of Units	Field Crew Days/Unit	Crew Days	Field Support Hours / Crew Days	Field Support Hours	Office Support Hours / Crew Days	Office Support Hours	Comments
27 10	Underground Utilities									
	Designates	Mile/Site			0.00		0.00		0.00	N/A
	Locates	Point			0.00		0.00		0.00	
	Survey		0%	0.00	0.00		0.00		0.00	
27 11	Outfall Survey									
		Mile			0.00		0.00		0.00	N/A
27 12	Drainage Survey			Units/Day						
		EA			0.00		0.00		0.00	N/A
27 13	Bridge Survey									
	Minor / Major	EA			0.00		0.00		0.00	N/A
27 14	Channel Survey									
		EA			0.00		0.00		0.00	N/A
27 15	Pond Site Survey									
		EA			0.00		0.00		0.00	N/A
27 16	Mitigation Survey									
		Mile			0.00		0.00		0.00	N/A
27 17	Jurisdiction Line Survey									
		Mile			0.00		0.00		0.00	N/A
27 18	Geotechnical Support			Units/Day						
		EA			0.00		0.00		0.00	N/A
27 19	Sectional / Grant Survey									
		Corner			0.00		0.00		0.00	N/A
		Mile			0.00		0.00		0.00	N/A
27 20	Subdivision Location									
		subs			0.00		0.00		0.00	N/A
27 21	Maintained RW									
		Mile			0.00		0.00		0.00	N/A
27 22	Boundary Survey									
		EA			0.00		0.00		0.00	N/A
27 23	Water Boundary Survey									
		EA			0.00		0.00		0.00	N/A
27 24	R/W Staking / R/W Line									
		EA			0.00		0.00		0.00	N/A
		Mile			0.00		0.00		0.00	N/A
27 25	R/W Monumentation									
		Point			0.00		0.00		0.00	N/A

Project Activity 27: Survey

Task No.	Task	Units	No of Units	Field Crew Days/Unit	Crew Days	Field Support Hours / Crew Days	Field Support Hours	Office Support Hours / Crew Days	Office Support Hours	Comments
27 26	Line Cutting	Mile			0 00					N/A
27 27	Work Zone Safety		4	0 125	0 50					MOT as appropriate to maintain safe work zone to traveling public and field survey crew.
27 28	Miscellaneous Surveys									N/A
Survey Subtotal										
27 29	Supplemental Surveys									
27 30	Document Research	Units	0%	2	0		0		0	THIS ITEM CAN ONLY BE USED IF AUTHORIZED BY CFX
27 31	Field Reviews	Units							0	Review provided AAF topodTM information
27 32	Technical Meetings	LS							0	
27 33	Quality Assurance / Quality Control	LS								N/A
27 34	Supervision	LS						5%	0	Sr PSM
27 35	Coordination	LS						5%	0	Sr PSM
								3%	0	Sr PSM
27 Survey Total										
				Crew Days	2	Field Support Hours	1	Office Support Hours	8	

Technical Meetings

Kickoff Meeting with CFX	EA	0	0	0	0
Baseline Approval Review	EA	0	0	0	0
Network Control Review	EA	0	0	0	0
Vertical Control Review	EA	0	0	0	0
Local Governments (cities, counties)	EA	0	0	0	0
Final Submittal Review	EA	0	0	0	0
Other Meetings	EA	0	0	0	0
Subtotal Technical Meetings					0
Progress Meetings	EA	0	0	0	0
Phase Review Meetings	EA	0	0	0	0
Total Meetings					0

Carries to 27 32

Note: Project Manager attendance at progress, phase and field review meetings are manually entered on General Task 3

Parsons Brinckerhoff

**SR 528 ECONLOCKHATCHEE BRIDGE WIDENING TO DALLAS BLVD
PROJECT № 528-131**

**Supplemental No. 1B
Scope of Services**

Supplemental Services Description:

This supplemental request covers additional services for the design of MSE Walls, associated drainage system, and final grading for All Aboard Florida (AAF) improvements.

CFX has advised that with the final execution of their agreement with AAF, CFX will be required to maintain the newly acquired area south of SR 528. To allow for maintenance, the area will be graded to allow for drainage flow, provide connections between SR 528 and the AAF service road, and other related operations and maintenance activities.

During the course of design, it was determined that certain cost benefits would occur by building portions of the ultimate improvements as part of this contract and as a result, a MSE wall system along the north side of SR 528 is needed to contain the proposed embankment along the north side of the proposed SR 528 improvements to avoid encroachment beyond the existing right-of-way. This work will be consistent with the *CFX SR 528 8-Lane Concept Study* which includes an ultimate 10-lane section in the project area. As part of this work, a storm sewer system will be installed that will be compatible with the anticipated future profile adjustments for the ultimate improvements.

During the geotechnical investigations for this project, some muck areas were found that require removal prior to embankment placement, which in turn will affect the existing IT lines. To address these impacts and removal activities, temporary IT lines will be installed initially. After the final embankment is placed, the permanent IT lines will be installed to match the new, raised profile which will allow more efficient access to these lines.

The services under this supplemental include additional project plan sheets for the MSE walls, storm sewer system, drainage map revisions, plan and profile sheets, updated cross-sections, final grading for AAF, environmental dredge and fill sketches, temporary IT lines, and other related changes.

We estimate the above additional work will impact our schedule by three weeks.

ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT

SUPPLEMENTAL ADDITIONAL SERVICES NO. 1B - MSE WALLS AND FINAL AAF GRADING

Name of Project: SR 528-131
 County: FPN
 FAP No.:

Consultant Name: Parsons Brinckerhoff
 Consultant No.: 528-131
 Date: 4/22/2016

Estimator: [blank]

Staff Classification	Total Staff Hours From Summary	Manager	Senior Engineer	Engineer	Designer	CADD Support	Structures Manager	Senior Struct Eng	Struct Proj Engineer	Struct Engineer	Engineer Intern	Structures Designer	Staff Classification 12	SH By Activity	Salary Cost By Activity	Average Rate Per Task
3 Project General and Project Common Tasks	11	11	0	0	0	0	0	0	0	0	0	0	0	11	\$371	\$79.16
4 Roadway Analysis	144	9	26	37	36	36	0	0	0	0	0	0	0	144	\$7,355	\$51.07
5 Roadway Plans	133	8	24	35	33	33	0	0	0	0	0	0	0	133	\$6,781	\$51.06
6 Drainage Analysis	29	2	5	7	7	6	0	0	0	0	0	0	0	29	\$1,470	\$50.70
7 Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
8 Environmental Permits, Compliance & Clearances	99	6	19	26	25	23	0	12	0	0	0	0	0	99	\$5,100	\$51.51
9 Structures - Misc. Tasks, Dwg. Non-Tech.	52	3	0	0	0	0	0	0	0	0	0	0	0	52	\$2,454	\$47.20
10 Structures - Bridge Development Report	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
11 Structures - Temporary Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
12 Structures - Short Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
13 Structures - Medium Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
14 Structures - Structural Steel Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
15 Structures - Segmental Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
16 Structures - Movable Span	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
17 Structures - Retaining Walls	17	0	0	0	0	0	0	62	0	0	0	0	0	17	\$13,062	\$47.09
18 Structures - Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
19 Signing & Pavement Marking Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
20 Signing & Pavement Marking Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
21 Signalization Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
22 Signalization Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
23 Lighting Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
24 Lighting Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
25 Landscape Architecture Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
26 Landscape Architecture Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
27 Survey (Field & Office Support)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
28 Photogrammetry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
29 Mapping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
30 Geotechnical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
31 Architecture Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
32 Noise Barriers Impact Assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
33 Intelligent Transportation Systems Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
34 Intelligent Transportation Systems Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0.00
Total Staff Hours	746	56	74	105	101	100	0	74	0	236	0	0	0	746	\$37,132.72	\$49.78
Total Staff Cost		\$4,432.56	\$5,118.58	\$5,579.70	\$4,573.28	\$3,465.00	\$0.00	\$5,141.52	\$0.00	\$8,821.68	\$0.00	\$0.00	\$0.00		\$37,132.72	

Survey Field Days by Subconsultant
 4 - Person Crew:

SALARY RELATED COSTS:
 OVERHEAD: 153.94%
 OPERATING MARGIN: 12%
 FCCM (Facilities Capital Cost Money): 0.00%
 LUMP SUM EXPENSES:

Notes:
 1 This sheet to be used by Prime Consultant to calculate the Grand Total fee
 2 Manually enter fee from each subconsultant. Unused subconsultant rows may be hidden.

Survey (Field - if by Prime) 0 days @ \$ / day
 SUBTOTAL ESTIMATED FEE:

\$105,610.21

\$30,728.39

\$6,102.81

\$38,831.20

\$144,441.41

SUBTOTAL SUBCONSULTANTS:

GRAND TOTAL ESTIMATED FEE:

Subconsultant Antillian
 Subconsultant GEC
 Subconsultant VHB
 Subconsultant WBO
 Subconsultant McKim and Creed

Project Activity 3: Project Common and Project General Tasks

Estimator:
Updated 08/26/16

Task No.	Task	Units	No of Units	Hours/ Unit	SUPPL EMENT	Comments
3.1	Public Involvement		1	0	0	
3.1.1	Community Awareness Plan	LS	1	0	0	
3.1.2	Notifications	LS	1	0	0	
3.1.3	Prepare Mailing Lists	LS	1	0	0	
3.1.4	Median Modification Letters	LS	1	0	0	
3.1.5	Driveway Modification Letters	LS	1	0	0	
3.1.6	Newsletters	LS	1	0	0	
3.1.7	Renderings and Fly Throughs	LS	1	0	0	
3.1.8	PowerPoint Presentation	LS	1	0	0	
3.1.9	Public Meeting Preparations	LS	1	0	0	
3.1.10	Public Meeting Attendance/Followup	LS	1	0	0	
3.1.11	MPO Meetings	LS	1	0	0	
3.1.12	Web Site	LS	1	0	0	
3.1 Public Involvement Subtotal					0	
3.2	Quality Control Plan	EA	1	0	0	
3.3	Specifications Package Preparation	LS	1	0	0	
3.4	Contract Maintenance	LS	1	0	0	
3.5	Value Engineering (Multi-Discipline Team) Review	LS	1	0	0	
3.6	Prime Consultant Project Manager Meetings	LS	1	11	11	See Listing Below
3.7	Plans Update	LS	1	0	0	
3.8	Post Design Services	LS	1	0	0	
3.9	Electronic Delivery	LS	1	0	0	
3.10	Other Project General Tasks	LS	1	0	0	
3. Project Common and Project General Tasks Total					11	

Project Activity 3: Project Common and Project General Tasks

Task No.	Task	Units	No of Units	Hours/ Unit	SUPPL ELEMENT	Comments
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3.6 - List of Project Manager Meetings

Roadway Analysis	EA	0	3	0		
Drainage	EA	0	3	0		
Utilities	EA	0	3	0		
Environmental	EA	0	3	0		
Structures	EA	0	3	0		
Signaling & Pavement Marking	EA	0	0	0		
Signalization	EA	0	0	0		
Lighting	EA	0	0	0		
Landscape Architecture	EA	0	0	0		
Survey	EA	0	0	0		
Photogrammetry	EA	0	0	0		
ROW & Mapping	EA	0	0	0		
Geotechnical	EA	0	3	0		
Architecture	EA	0	0	0		
Noise Barriers	EA	0	0	0		
Other Meetings (AAF, SJRWMD)	EA	1	3	3		
Bt-Weekly Progress Meetings	EA	2	4	8		Two Additional Progress Meetings
Phase Reviews	EA		3	0		
Field Reviews	EA	0	8	0		
Total Project Manager Meetings		3		11		

Notes:

1. If the hours per meeting vary in length (hours) enter the average in the hour/unit column.
2. Do not double count agency meetings between permitting agencies.
3. Project manager meetings are calculated in each discipline sheet and brought forward to column D except for Photogrammetry.

Project Activity 4: Roadway Analysis

Task No.	Task	Units	No of Units	Hours/ Unit	SUPPL EMENT	Comments
4.1	Typical Section Package	LS	0	3	0	
4.2	Pavement Design Package	LS	1	0	0	
4.3	Access Management	LS	1	0	0	
4.4	Horizontal/Vertical Master Design Files	LS	1	85	85	AAF and MSE Walls impact. Total length of MSE walls, Sta. 1410+00 and the western bridge abutment at Sta. 1415+50, and between the eastern bridge abutment at Sta. 1418+50 and Sta. 1428+00, or approx 1500 feet. 300 Hrs/Mile x 1500/5280 = 85 Hrs.
4.5	Cross Section Design Files	LS	1	20	20	70 Hrs/Mi x 1510/5280 = 20 Hr to Integrate MSE Walls and provide maintenance access along North R/W. Adjust design to provide addition lanes for the future 10-Lane Section between station 1412+35 and 1421+65
4.6	Traffic Control Analysis	LS	1	0	0	
4.7	Master TCP Design Files	LS	1	0	0	
4.8	Design Variations and Exceptions	LS	1	0	0	
4.9	Preliminary Design Report	LS	1	0	0	
4.10	Computation Book & Quantities	LS	1	12	12	Develop additional quantities associated AAF, new paving limits, guardrail, and new stormsewer.
4.11	Cost Estimate	LS	1	0	0	
4.12	Technical Special Provisions	LS	1	0	0	
4.13	Submittal Preparations	EA	5	0	0	
Roadway Analysis Technical Subtotal					117	
4.14	Field Reviews	LS	1	0	0	
4.15	Technical Meetings	LS	1	11	11	SJRWMD coordination
4.16	Quality Assurance/Quality Control	LS	%	5%	6	
4.17	Independent Peer Review	LS	%	0%	0	
4.18	Supervision	LS	%	5%	6	
Roadway Analysis Nontechnical Subtotal					23	
4.19	Coordination	LS	%	3%	4	
4. Roadway Analysis Total					144	

Project Activity 4: Roadway Analysis

Task No.	Task	Units	No of Units	Hours/ Unit	SUPPLEMENT	Comments
Technical Meetings						
	Typical Section	EA				
	Pavement	EA				
	Access Management	EA				
	15% Line and Grade	EA				
	Driveways	EA				
	Local Governments (cities, counties, MPO)	EA				
	Work Zone Traffic Control	EA				
	30/60/90/100% Comment Review Meeting:	EA				
	Other Meetings (AAF, SJRWMD)	EA	1	3	3	
	Subtotal Technical Meetings				3	
	Progress Meetings	EA	2	4	8	
	Phase Review Meetings	EA			0	
	Total Meetings				11	
					Carries to 4.15	

Note: Project Manager attendance at progress, phase and field review meetings are manually entered on General Task 3

Project Activity 5: Roadway Plans

Task No.	Task	Scale	Units	No. of Units	SUPPLEMENTAL	No. of Sheets	Total Hours	Comments
5.1	Key Sheet		Sheet		2	0	0	Update
5.2	Summary of Pay Items Including Quantity Input		Sheet	0	0	0	0	
5.3	Drainage Map		Sheet	2	6	2	12	Update for AAF Improvements, New Storm Sewer, Grading Limits
5.4	Interchange Drainage Map		Sheet	0	0	0	0	
5.5	Typical Section Sheets		Sheet	2	2	2	4	Includes MSE Walls
5.6	General Notes/Pay Item Notes		1	0	0		0	
5.7	Summary of Quantities		Sheet	2	4	2	8	MSE Walls
5.8	Box Culvert Data Sheet		Sheet	0	6	0	0	
5.9	Bridge Hydraulics Recommendation Sheets		Sheet	0	36	0	0	
5.10	Summary of Drainage Structures		Sheet	1	12	1	12	Includes new structures for AAF and MSE walls
5.11	Optional Pipe/Culvert Material		Sheet	0	0	0	0	
5.12	Project Layout		Sheet	0	12	0	0	
5.13	Plan/Profile Sheet		Sheet	0	0	0	0	
5.14	Profile Sheet		Sheet	5	3	5	15	Add Ditch Profiles for MSE Walls and AAF
5.15	Plan Sheet		Sheet	5	3	5	15	Add, MSE Wall and Roadway Lane addition
5.16	Special Profile		Sheet	2	4	2	8	Two Extra Sheets for Ditch profiles for AAF and Future MSE Wall to Accommodate Ultimate
5.17	Back of Sidewalk Profile Sheet		Sheet	0	0	0	0	
5.18	Interchange Layout Sheet		Sheet	0	0	0	0	
5.19	Ramp Terminal Details (Plan View)		Sheet	0	0	0	0	
5.20	Intersection Layout Details		Sheet	0	0	0	0	
5.21	Miscellaneous Detail Sheets		Sheet	0	4	0	0	
5.22	Drainage Structure Sheet (Per Structure)		EA	1	3	1	3	
5.23	Miscellaneous Drainage Detail Sheets		Sheet	0	24	0	0	
5.24	Lateral Ditch Plan/Profile		Sheet	0	8	0	0	

SR 528 Econ River Bridges, SA 2, SMF, V7.xlsx

5. Roadway Plans

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4/22/2016

Project Activity 5: Roadway Plans

Task No.	Task	Scale	Units	No. of Units	SUPPLEMENTAL	No. of Sheets	Total Hours	Comments
5.25	Lateral Ditch Cross Sections		EA	88	0.5	88	44	MSE Walls and Final Grading for AAF
5.26	Retention/Detention Ponds Detail Sheet		Sheet	0	12	0	0	
5.27	Retention Pond Cross Sections		EA	0	1	1	0	
5.28	Cross-Section Pattern Sheet		Sheet	0	8	0	0	
5.29	Roadway Soil Survey Sheet		Sheet	0	4	0	0	
5.30	Cross Sections		EA	0	0.5		0	
5.31	Traffic Control Plan Sheets		Sheet	0	10	0	0	
5.32	Traffic Control Cross Section Sheets		EA	0	0.5		0	
5.33	Traffic Control Detail Sheets		Sheet	0	12	0	0	
5.34	Utility Adjustment Sheets		Sheet	0	8	0	0	
5.35	Selective Clearing and Grubbing		Sheet	0	7	0	0	
5.36	Erosion Control Plan		Sheet	0	8	0	0	
5.37	SWPPP		Sheet	0	6	0	0	
5.38	Project Control Network Sheet		Sheet	0	0	0	0	
5.39	Environmental Detail Sheets		LS	0	0		0	
5.40	Utility Verification Sheet (SUE Data)		Sheet	0	0	0	0	
Roadway Plans Technical Subtotal							109	121
5.41	Quality Assurance/Quality Control		LS	%	5%		6	
5.42	Supervision		LS	%	5%		6	
5. Roadway Plans Total							109	133

Project Activity 6: Drainage Analysis

Task No.	Task	Units	No of Units	Hours/ Unit	SUPPL- EMENT	Comments
6.1	Determine Base Clearance Water Elevation	Per Location	0	0	0	
6.2	Pond Siting Analysis	Per Basin	0	16	0	
6.3	Design of Cross Drains	EA	0	0	0	
6.4	Design of Roadway Ditches	Per Ditch Mile	0	0	0	
6.5	Design of Outfalls	EA	0	0	0	
6.6	Design of Stormwater Management Facility (Offsite Pond)	EA	1	0\	0	
6.7	Design of Stormwater Management Facility (Roadside Ditch as Linear Pond or Infield Pond)	Per System	0	0	0	
6.8	Design of Flood Plain Compensation Area	Per Encroachment	0	0	0	
6.9	Design of Storm Drains	EA	1	2	2	
6.10	Optional Culvert Material	LS	0	0	0	
6.11	French Drain Systems	Per 1000 Feet of French Drain	0	0	0	
6.12	Drainage Wells	EA	0	0	0	
6.13	Drainage Design Documentation Report	LS	1	16	16	For AAF and MSE Walls.
6.14	Bridge Hydraulic Report	EA	0	0	0	
6.15	Temporary Drainage Analysis	LS	1	0	0	
6.16	Cost Estimate	LS	0	8	0	
6.17	Technical Special Provisions	LS	1	0	0	
6.18	Other Drainage Analysis	LS	1	0	0	
Drainage Analysis Technical Subtotal					18	

Project Activity 6: Drainage Analysis

Task No.	Task	Units	No of Units	Hours/ Unit	SUPPL EMENT	Comments
6.19	Field Reviews	LS	0	0	0	
6.20	Technical Meetings	LS	1	8	8	
6.21	Quality Assurance/Quality Control	LS	%	5%	1	
6.22	Independent Peer Review	LS	%	0%	0	
6.23	Supervision	LS	%	5%	1	
Drainage Analysis Nontechnical Subtotal						10
6.24	Coordination	LS	%	3%	1	
6. Drainage Analysis Total						29

Technical Meetings

Base Clearance Water Elevation	EA				
Pond Siting	EA				
Agency	EA	1	8		8
Local Governments (cities, counties)	EA				
CFX/Atkins Drainage	EA				
Other Meetings (Bi-weekly Team Meetings)	EA				
Subtotal Technical Meetings					
Progress Meetings (if required by CFX)	EA				
Phase Review Meetings	EA				
Total Meetings					8

Carries to 6.20

Note: Project Manager attendance at progress, phase and field review meetings are manually entered on General Task 3

Project Activity 8: Environmental Permits, Compliance and Clearances

Task No.	Task	Units	No. of Units	Hours/ Units	SUPPLEMENTAL	Comments
8.1	Preliminary Project Research	LS	1	0	0	
8.2	Complete Permit Involvement Form	LS	1	0	0	
8.3	Establish Wetland Jurisdictional Lines and Assessments	LS	0	8	0	
8.4	Agency Verification of Wetland Data	LS	1	0	0	
8.5	Complete And Submit All Required Permit Applications	LS	1	8	8	Update for AAF.
8.6	Prepare Dredge and Fill Sketches	LS	1	80	80	Prepared, Modify Plans to Reflect Wetland Impacts, 2 Drain Maps, 8 Plan sheets @ 8 Hrs Ea
8.7	Prepare USCG Permit Sketches	LS	1	0	0	Not Included
8.8	Prepare Water Management District Right-of-Way Occupancy Sketches	LS	1	0	0	
8.9	Prepare Coastal Construction Control Line (CCCL) Permit Application	LS	1	0	0	
8.10	Prepare Tree Permit Information	LS	1	0	0	Not Included
8.11	Mitigation Coordination and Meetings	LS	1	0	0	RHPZ & Wetlands - Not Required
8.12	Mitigation Design	LS	1	0	0	Not Included
8.13	Environmental Clearances and Technical Support	LS	1	0	0	Not Included
8.14	Environmental Clearances and Reevaluations	LS	1	0	0	Not Included
8.15	Other Environmental Permits	LS	1	0	0	Not Included
Environmental Permits, Compliance and Clearances Technical Subtotal						88
8.16	Technical Meetings	LS	1	0	0	Meetings are listed below
8.17	Quality Assurance/Quality Control	LS	%	5%	4	
8.18	Supervision	LS	%	5%	4	
Environmental Permits, Compliance and Clearances Nontechnical Subtotal						8
8.19	Coordination	LS	%	3%	3	
8. Environmental Permits, Compliance and Clearances Total						99

Project Activity 8: Environmental Permits, Compliance and Clearances

Task No.	Task	Units	No. of Units	Hours/ Units	SUPPLEMENTAL	Comments
Technical Meetings						
	WMD	EA				
	ACOE	EA				
	USCG	EA				
	USFWS	EA				
	FFWCC	EA				
	FDOT	EA				
	Other Meetings	EA				
	Subtotal Technical Meetings				0	
	Progress Meetings	EA	0	0	0	
	Phase Review Meetings	EA	0	0	0	
	Total Meetings				0	
					Carries to 8.16	

Note: Project Manager attendance at progress, phase and field review meetings are manually entered on General Task 3

Project Activity 9: Structures - Summary and Miscellaneous Tasks and Drawings

Task No.	Task	Units	Design and Production Staffhours				Comments				
			No. of Units	Hours per Unit	No. of Sheets	Total					
	General Drawings										
9.1	Index of Drawings	Sheet	0	0	0	0					
9.2	Project Layout	Sheet	0	85	0	0					
9.3	General Notes and Bid Item Notes	Sheet	0	20	0	0					
9.4	Miscellaneous Common Details	Sheet	1	0\	0						
9.5	Incorporate Report of Core Borings	Sheet	0	0	0	0					
9.6	Existing Bridge Plans	LS	0	0		0					
9.7	Assemble Computation Book and Quantities	LS	1	4		4	Include 1 hour for MSE Walls for each submittal (4 updates after BCM @ 4 hrs)				
9.8	Cost Estimate	LS	1	4		4	Include 1 hour for MSE Walls for each submittal (4 updates after BCM @ 4 hrs)				
9.9	Technical Special Provisions	LS	1	0		0					
Structures - Summary and Miscellaneous Tasks and Drawings Subtotal					0	8					
Task No.	Task	Total	Task 10	Task 11	Task 12	Task 13	Task 14	Task 15	Task 16	Task 17	Task 18
10-16	Bridge 1	0	0	0	0	0	0	0	0		
10-16	Bridge 2	0									
10-16	Bridge 3	0									
17	Retaining Walls	278								278	
18	Miscellaneous Structures	0									0
Structures Technical Subtotals		278	0	0	0	0	0	0	0	278	0

Project Activity 9: Structures - Summary and Miscellaneous Tasks and Drawings

Task No.	Task	Units	No. of Units	Hours per Unit	Total	Comments
9.10	Field Reviews	LS	1	0	0	0
9.11	Technical Meetings	LS	1	0	0	Meetings are listed below
9.12	Quality Assurance/Quality Control	LS	%	5%	14	
9.13	Independent Peer Review	LS	%	0%	0	
9.14	Supervision	LS	%	5%	14	
Structures Nontechnical Subtotal					28	
9.15	Coordination	LS	%	5%	16	Management & Coordination
9. Structures - Summary and Miscellaneous Tasks and Drawings Nontechnical and Coordination Total					52	

Technical Meetings

BCR Coordination/Review	EA	0	0	0	1 person @ 2 hours each inc. prep and minutes
90/100% Comment Review	EA	0	0	0	1 person @ 2 hours each inc. prep and minutes
Aesthetics Coordination	EA	0	0	0	
Regulatory Agency	EA	0	0	0	
Local Governments (cities, counties)	EA	0	0	0	
Utility Companies	EA	0	0	0	
Other Meetings	EA	0	0	0	
Subtotal Technical Meetings				0	
Progress Meetings	EA	0	0	0	1 person @ 2 hours each inc. prep
Phase Review Meetings	EA	0	0	0	1 person @ 3 hours each inc. prep and minutes

Project Activity 9: Structures - Summary and Miscellaneous Tasks and Drawings

Total Meetings	0
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Project Activity 17: Structures - Retaining Walls

Task No.	Task	Unit	No. of Units	SUPP LEME	Total Hours	Comments
General Requirements						
17.1	Key Sheet	Sheet	0	0	0	
17.2	Horizontal Wall Geometry	Per Wall	2	4	8	North Bridge: Two Permanent MSE Walls
Permanent Proprietary Walls						
17.3	Vertical Wall Geometry	Per Wall	2	18	36	North Bridge: Permanent MSE Walls, determine geometry/elevations of future widening vs. tie-in to end bents
17.4	Semi-Standard Drawings	Sheet	1	8	8	
17.5	Wall Plan and Elevations (Control Drawings)	Sheet	5	22	110	North Bridge: Wall 1 = 500' (2 sheets), Wall 2 = 950' (3 sheets), numerous drainage structures
17.6	Details	Sheet	3	16	48	North Bridge: Wall details (plan and sections at end bent), aesthetic details
Temporary Proprietary Walls						
17.7	Vertical Wall Geometry	Per Wall			0	
17.8	Semi-Standard Drawings	Sheet			0	
17.9	Wall Plan and Elevations (Control Drawings)	Sheet			0	
17.10	Details	Sheet			0	
Cast-in-Place Retaining Walls						
17.11	Design	EA Design	0	0	0	
17.12	Vertical Wall Geometry	EA Wall	0	0	0	
17.13	General Notes	Sheet	0	0	0	
17.14	Wall Plan and Elevations (Control Drawings)	Sheet	0	0	0	
17.15	Sections and Details	Sheet	0	0	0	
17.16	Reinforcing Bar List	Sheet	0	0	0	

Project Activity 17: Structures - Retaining Walls

Task No.	Task	Unit	No. of Units	SUPP L EME	Total Hours	Comments
Other Retaining Walls and Bulkheads						
17.17	Design	EA Design	1	16	16	North Bridge: Temporary Steel sheet pile design
17.18	Vertical Wall Geometry	EA Wall	2	8	16	North Bridge: Temporary Steel sheet pile design
17.19	General Notes, Tables and Misc. Details	Sheet				
17.20	Wall Plan and Elevations	Sheet	3	12	36	North Bridge: Temporary Steel sheet pile design
17.21	Details	Sheet	0	0	0	
17. Structures - Retaining Walls Total					12	278

Antillian Engineering

SR 528 ECONLOCKHATCHEE BRIDGE WIDENING TO DALLAS BLVD PROJECT № 528-131

Geotechnical Scope of Services Summary

Project Description:

4.05 Geotechnical Investigation for Permanent MSE Walls (by Antillian)

- Perform a total of 11 SPT borings to 30-50 feet each for the 1,500 linear feet of proposed permanent face MSE walls approximately 14 feet high between Sta. 1410+00 and the western bridge abutment at Sta. 1415+50, and between the eastern bridge abutment at Sta. 1418+50 and Sta. 1428+00. Field and lab effort were reduced by using bridge borings drilled at abutments by GEC for MSE wall analysis. Wall straps will be estimated to account for the future raising of the MSE walls to approximately 23 feet high at STA 1428 to accommodate the estimated ultimate Dallas Boulevard profile as indicated in the CFX SR 528 8-Lane Concept Study.
- Visually examine all recovered soil samples in the laboratory utilizing the Unified Soil Classification System. Perform laboratory tests on selected representative soil samples, including grain size analysis, Atterberg limits, organic content, natural moisture content, LBR and corrosion series testing as appropriate.
- Collect groundwater level measurements and estimate wet seasonal high groundwater tables.

35. Geotechnical

Estimator: PGS

2/24/2016

ANTILLIAN scope for Permanent MSE Walls on N Side of SR 528

SR 528 Econlockhatchee Bridge Widening
528-131

Representing	Print Name	Signature / Date
FDOT District	CFX	
Consultant Name	Antillian Engineering Associates, Inc.	

NOTE: Signature Block is optional, per District preference

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
	Roadway					
		Roadway Geotechnical Subtotal			0	
	Structures					
35.27	Develop Detailed Boring Location Plan	LS	1	2	2	
35.28	Stake Borings/Utility Clearance	Boring	11	0.3	3	MSE Walls: 2 SPT to 30 ft, 2 SPT to 35 ft, 3 SPT to 40 ft, 2 SPT to 45 ft, 2 SPT to 50 ft (440 ft) NIC GEC bridge borings
35.29	Coordinate and Develop MOT Plans for Field Investigation	EA	0	6	0	
35.30	Drilling Access Permits	Location	0	0	0	
35.31	Property Clearances	EA	0	0	0	
35.32	Collection of Corrosion Samples	EA	7	0.25	2	One per 300 LF of wall
35.33	Coordination of Field Work	100 ft of boring	4.4	0.3	1	
35.34	Soil and Rock Classification - Structures	100 ft of boring	4.4	2	9	
35.35	Tabulation of Laboratory Data	100 ft of boring	4.4	0.5	2	
35.36	Estimate Design Groundwater Level for Structures	EA	2	0.25	1	
35.37	Selection of Foundation Alternatives (BDF)	Bridge boring	0	4	0	
35.38	Detailed Analysis of Selected Foundation Alternate(s)	Bridge boring	0	4	0	
35.39	Bridge Construction and Testing Recommendations	Bridge boring	0	3	0	
35.40	Lateral Load Analysis (Optional)	Bridge boring	0	0	0	

35. Geotechnical

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
35.41	Walls	Wall Boring	13	2	26	GEC bridge borings included in analysis
35.42	Sheet Pile Wall Analysis (Optional)	Wall Boring	13	2	26	External stability analysis only, structural design of sheetpile wall not included.
35.43	Design Soil Parameters for Signs, Signals, High Mast Lights, and Strain Poles and Geotechnical Recommendations	Boring	0	2	0	
35.44	Box Culvert Analysis	EA	0	0	0	
35.45	Preliminary Report - BDR	EA	0	16	0	90%, 100%, Final submittals
35.46	Final Report - Bridge and Associated Walls	EA	0	24	0	
35.47	Final Reports - Signs, Signals, Box Culvert, Walls and High Mast Lights	EA	1	24	24	
35.48	SPT Boring Drafting	100 lf of boring	4.4	5	22	
35.49	Other Geotechnical	LS	1	0	0	
Structural Geotechnical Subtotal					118	
Geotechnical Technical Subtotal					118	
35.50	Technical Special Provisions	EA	0	0	0	
35.51	Field Reviews	LS	0	6	0	
35.52	Technical Meetings	LS	1	2	2	Meetings listed below
35.53	Quality Assurance/Quality Control	LS	%	5%	6	
35.54	Supervision	LS	%	5%	6	
Geotechnical Nontechnical Subtotal					14	
35.55	Coordination	LS	%	3%	4	
35. Geotechnical Total					136	

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	PM Attendance at Meeting Required?	Number
Kickoff Meeting with CFX	EA	0	2	0		0
Boring Layout Approval	EA	0	0	0		0
Attend in BDR Review Meeting	EA	0	0	0		0

35. Geotechnical

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
30/60/90% Submittal Review		EA	0	2	0	0
Other Meetings		EA	0	0	0	0
Subtotal Technical Meetings					0	Subtotal Project Manager Meetings
Progress Meetings (if required by CFX)		EA	1	2	2	PM attendance at Progress Meetings is manually entered on General Task
Phase Review Meetings		EA	0	2	0	attendance at Phase Review Meetings is manually entered on General Task
Total Meetings			2	2	2	Total Project Manager Meetings (carries to Tab 3)
						0

Carries to Tab 3

Carries to 33 18

SUMMARY GEOTECHNICAL & CONTAMINATION SERVICES**FEE SCHEDULE:** 2015**PROJECT:** SR 528 Econlockhatchee Bridge Widening**PREPARED BY:** PGS**FPID:****DATE:** 4/22/2016

Item	Description	Unit	Unit Price	No of Units	Cost
01.00.00	GEOTECHNICAL FIELD EXPLORATION				
01.01.00	Crew & Equipment Mobilization:				
01.01.01	Truck Rig Mobilization	EA	\$450.00	0	\$ -
01.01.02	Mudbug Mobilization	EA	\$500.00	1	\$ 500.00
01.01.03	Track Rig Mobilization	EA	\$3,000.00	0	\$ -
01.01.04	Barge (small) Mobilization	EA	\$8,500.00	0	\$ -
01.01.05	Barge (offshore) Mobilization	EA	N/A	0	\$ -
01.01.06	CPT Rig Mobilization	EA	\$500.00	0	\$ -
01.01.07	Support Boat Mobilization	EA	\$200.00	0	\$ -
01.01.08	Pavement Coring Equipment Mobilization	EA	\$250.00	0	\$ -
01.01.09	Soil Survey/Coring/GPR Crew Mobilization	EA	\$250.00	0	\$ -
01.01.10	Tri Pod Rig Mobilization	EA	\$2,500.00	0	\$ -
01.01.11	Low Clearance Rig Mobilization	EA	N/A	0	\$ -
01.01.12	Drill Rig Remobilization	EA	\$150.00	1	\$ 150.00
01.02.00	Auger Borings (ASTM D-1452):				
01.02.01	Truck Auger Borings	LF	\$9.00	0	\$ -
01.02.02	Mudbug Auger Borings	LF	\$11.25	0	\$ -
01.02.03	Track Auger Borings	LF	\$13.50	0	\$ -
01.03.00	Standard Penetration Test Borings (ASTM D-1586):				
01.03.01	SPT - Truck/MB:				
01.03.01A	SPT - Truck/MB: 0-50 FT	LF	\$12.00	330	\$ 3,960.00
01.03.01B	SPT - Truck/MB: 50-100 FT	LF	\$14.00	0	\$ -
01.03.01C	SPT - Truck/MB: 100-150 FT	LF	\$21.00	0	\$ -
01.03.01D	SPT - Truck/MB: 150-200 FT	LF	\$28.00	0	\$ -
01.03.01E	SPT - Truck/MB: 200-250 FT	LF	\$38.00	0	\$ -
01.03.01F	SPT - Truck/MB: 250-300 FT	LF	N/A	0	\$ -
01.03.02	SPT - B/T/A:				
01.03.02A	SPT - B/T/A: 0-50 FT	LF	N/A	0	\$ -
01.03.02B	SPT - B/T/A: 50-100 FT	LF	N/A	0	\$ -

SUMMARY GEOTECHNICAL & CONTAMINATION SERVICES**FEE SCHEDULE:** 2015**PROJECT:** SR 528 Econlockhatchee Bridge Widening**PREPARED BY:** PGS**FPID:****DATE:** 4/22/2016

Item	Description	Unit	Unit Price	No of Units	Cost
01.03.02C	SPT- B/T/A: 100-150 FT	LF	N/A	0	\$ -
01.03.02D	SPT- B/T/A: 150-200 FT	LF	N/A	0	\$ -
01.03.02E	SPT- B/T/A: 200-250 FT	LF	N/A	0	\$ -
01.03.02F	SPT- B/T/A: 250-300 FT	LF	N/A	0	\$ -
01.04.00	Cone Penetration Test Soundings (ASTM D-3441):				
01.04.01	CPT - Truck/MB:				
01.04.01A	CPT - Truck/MB: 0-50 FT	LF	\$11.50	0	\$ -
01.04.01B	CPT - Truck/MB: 50-100 FT	LF	\$11.50	0	\$ -
01.04.01C	CPT - Truck/MB: 100-150 FT	LF	\$12.50	0	\$ -
01.04.01D	CPT - Truck/MB: 150-200 FT	LF	N/A	0	\$ -
01.04.01E	CPT - Truck/MB: 200-250 FT	LF	N/A	0	\$ -
01.04.01F	CPT - Truck/MB: 250-300 FT	LF	N/A	0	\$ -
01.04.02	CPT - B/T/A:				
01.04.02A	CPT - B/T/A: 0-50 FT	LF	N/A	0	\$ -
01.04.02B	CPT - B/T/A: 50-100 FT	LF	N/A	0	\$ -
01.04.02C	CPT - B/T/A: 100-150 FT	LF	N/A	0	\$ -
01.04.02D	CPT - B/T/A: 150-200 FT	LF	N/A	0	\$ -
01.04.02E	CPT - B/T/A: 200-250 FT	LF	N/A	0	\$ -
01.04.02F	CPT - B/T/A: 250-300 FT	LF	N/A	0	\$ -
01.05.00	Rock Coring - HW Barrel (ASTM D-2113):				
01.05.01	Rock Coring - Truck/MB:				
01.05.01A	Rock Coring - Truck/MB: 0-50 FT	LF	\$35.00	0	\$ -
01.05.01B	Rock Coring - Truck/MB: 50-100 FT	LF	\$38.00	0	\$ -
01.05.01C	Rock Coring - Truck/MB: 100-150 FT	LF	\$43.00	0	\$ -
01.05.01D	Rock Coring - Truck/MB: 150-200 FT	LF	\$48.00	0	\$ -
01.05.01E	Rock Coring - Truck/MB: 200-250 FT	LF	\$55.00	0	\$ -
01.05.01F	Rock Coring - Truck/MB: 250-300 FT	LF	N/A	0	\$ -
01.05.02	Rock Coring - B/T/A:				
01.05.02A	Rock Coring - B/T/A: 0-50 FT	LF	N/A	0	\$ -

SUMMARY GEOTECHNICAL & CONTAMINATION SERVICES**FEE SCHEDULE:** 2015**PROJECT:** SR 528 Econlockhatchee Bridge Widening**PREPARED BY:** PGS**FPID:****DATE:** 4/22/2016

Item	Description	Unit	Unit Price	No of Units	Cost
01.05.02B	Rock Coring - B/T/A: 50-100 FT	LF	N/A	0	\$ -
01.05.02C	Rock Coring - B/T/A: 100-150 FT	LF	N/A	0	\$ -
01.05.02D	Rock Coring - B/T/A: 150-200 FT	LF	N/A	0	\$ -
01.05.02E	Rock Coring - B/T/A: 200-250 FT	LF	N/A	0	\$ -
01.05.02F	Rock Coring - B/T/A: 250-300 FT	LF	N/A	0	\$ -
01.06.00	Grout Seal Boreholes:				
01.06.01	Grout Boreholes - Truck/MB:				
01.06.01A	Grout - Truck/MB: 0-50 FT	LF	\$4.50	0	\$ -
01.06.01B	Grout - Truck/MB: 50-100 FT	LF	\$5.00	0	\$ -
01.06.01C	Grout - Truck/MB: 100-150 FT	LF	\$5.50	0	\$ -
01.06.01D	Grout - Truck/MB: 150-200 FT	LF	\$6.00	0	\$ -
01.06.01E	Grout - Truck/MB: 200-250 FT	LF	\$6.50	0	\$ -
01.06.01F	Grout - Truck/MB: 250-300 FT	LF	N/A	0	\$ -
01.06.02	Grout Boreholes - B/T/A:				
01.06.02A	Grout - B/T/A: 0-50 FT	LF	N/A	0	\$ -
01.06.02B	Grout - B/T/A: 50-100 FT	LF	N/A	0	\$ -
01.06.02C	Grout - B/T/A: 100-150 FT	LF	N/A	0	\$ -
01.06.02D	Grout - B/T/A: 150-200 FT	LF	N/A	0	\$ -
01.06.02E	Grout - B/T/A: 200-250 FT	LF	N/A	0	\$ -
01.06.02F	Grout - B/T/A: 250-300 FT	LF	N/A	0	\$ -
01.07.00	Temporary Casing:				
01.07.01	3" Temp. Casing - Truck/MB:				
01.07.01A	3" Casing - Truck/MB: 0-50 FT	LF	\$9.00	0	\$ -
01.07.01B	3" Casing - Truck/MB: 50-100 FT	LF	\$10.00	0	\$ -
01.07.01C	3" Casing - Truck/MB: 100-150 FT	LF	\$12.00	0	\$ -
01.07.01D	3" Casing - Truck/MB: 150-200 FT	LF	\$14.00	0	\$ -
01.07.01E	3" Casing - Truck/MB: 200-250 FT	LF	\$16.00	0	\$ -
01.07.01F	3" Casing - Truck/MB: 250-300 FT	LF	N/A	0	\$ -
01.07.02	3" Temp. Casing - B/T/A:				

SUMMARY GEOTECHNICAL & CONTAMINATION SERVICES**FEE SCHEDULE:** 2015**PROJECT:** SR 528 Econlockhatchee Bridge Widening**PREPARED BY:** PGS**FPID:****DATE:** 4/22/2016

Item	Description	Unit	Unit Price	No of Units	Cost
01.07.02A	3" Casing - B/T/A: 0-50 FT	LF	N/A	0	\$ -
01.07.02B	3" Casing - B/T/A: 50-100 FT	LF	N/A	0	\$ -
01.07.02C	3" Casing - B/T/A: 100-150 FT	LF	N/A	0	\$ -
01.07.02D	3" Casing - B/T/A: 150-200 FT	LF	N/A	0	\$ -
01.07.02E	3" Casing - B/T/A: 200-250 FT	LF	N/A	0	\$ -
01.07.02F	3" Casing - B/T/A: 250-300 FT	LF	N/A	0	\$ -
01.07.03	4" Temp. Casing - Truck/MB:				
01.07.03A	4" Casing - Truck/MB: 0-50 FT	LF	\$10.00	110	\$ 1,100.00
01.07.03B	4" Casing - Truck/MB: 50-100 FT	LF	\$12.00	0	\$ -
01.07.03C	4" Casing - Truck/MB: 100-150 FT	LF	\$14.00	0	\$ -
01.07.03D	4" Casing - Truck/MB: 150-200 FT	LF	\$16.00	0	\$ -
01.07.03E	4" Casing - Truck/MB: 200-250 FT	LF	\$18.00	0	\$ -
01.07.03F	4" Casing - Truck/MB: 250-300 FT	LF	N/A	0	\$ -
01.07.04	4" Temp. Casing - B/T/A:				
01.07.04A	4" Casing - B/T/A: 0-50 FT	LF	N/A	0	\$ -
01.07.04B	4" Casing - B/T/A: 50-100 FT	LF	N/A	0	\$ -
01.07.04C	4" Casing - B/T/A: 100-150 FT	LF	N/A	0	\$ -
01.07.04D	4" Casing - B/T/A: 150-200 FT	LF	N/A	0	\$ -
01.07.04E	4" Casing - B/T/A: 200-250 FT	LF	N/A	0	\$ -
01.07.04F	4" Casing - B/T/A: 250-300 FT	LF	N/A	0	\$ -
01.08.00	Extra SPT Samples:				
01.08.01	Extra SPT Samples - Truck/MB:				
01.08.01A	Extra SPT Samples - Truck/MB: 0-50 FT	EA	\$35.00	0	\$ -
01.08.01B	Extra SPT Samples - Truck/MB: 50-100 FT	EA	\$37.00	0	\$ -
01.08.01C	Extra SPT Samples - Truck/MB: 100-150 FT	EA	\$75.00	0	\$ -
01.08.01D	Extra SPT Samples - Truck/MB: 150-200 FT	EA	\$90.00	0	\$ -
01.08.01E	Extra SPT Samples - Truck/MB: 200-250 FT	EA	\$105.00	0	\$ -
01.08.01F	Extra SPT Samples - Truck/MB: 250-300 FT	EA	N/A	0	\$ -
01.08.02	Extra SPT Samples - B/T/A:				

SUMMARY GEOTECHNICAL & CONTAMINATION SERVICES**FEE SCHEDULE:** 2015**PROJECT:** SR 528 Econlockhatchee Bridge Widening**PREPARED BY:** PGS**FPID:****DATE:** 4/22/2016

Item	Description	Unit	Unit Price	No of Units	Cost
01.08.02A	Extra SPT Samples - B/T/A: 0-50 FT	EA	N/A	0	\$ -
01.08.02B	Extra SPT Samples - B/T/A: 50-100 FT	EA	N/A	0	\$ -
01.08.02C	Extra SPT Samples - B/T/A: 100-150 FT	EA	N/A	0	\$ -
01.08.02D	Extra SPT Samples - B/T/A: 150-200 FT	EA	N/A	0	\$ -
01.08.02E	Extra SPT Samples - B/T/A: 200-250 FT	EA	N/A	0	\$ -
01.08.02F	Extra SPT Samples - B/T/A: 250-300 FT	EA	N/A	0	\$ -
01.09.00	Undisturbed Samples (ASTM D-1587):				
01.09.01	Undisturbed Samples - Truck/MB:				
01.09.01A	Undisturbed Samples - Truck/MB: 0-50 FT	EA	\$120.00	2	\$ 240.00
01.09.01B	Undisturbed Samples - Truck/MB: 50-100 FT	EA	\$140.00	0	\$ -
01.09.01C	Undisturbed Samples - Truck/MB: 100-150 FT	EA	\$240.00	0	\$ -
01.09.01D	Undisturbed Samples - Truck/MB: 150-200 FT	EA	\$300.00	0	\$ -
01.09.02	Undisturbed Samples - B/T/A:				
01.09.02A	Undisturbed Samples - B/T/A: 0-50 FT	EA	N/A	0	\$ -
01.09.02B	Undisturbed Samples - B/T/A: 50-100 FT	EA	N/A	0	\$ -
01.09.02C	Undisturbed Samples - B/T/A: 100-150 FT	EA	N/A	0	\$ -
01.09.02D	Undisturbed Samples - B/T/A: 150-200 FT	EA	N/A	0	\$ -
01.10.00	Drill Rig and Crew (Clearing/Difficult Access)				
01.10.01	Drill Rig and 2-Man Crew - Truck/MB	HR	\$200.00	16	\$ 3,200.00
01.10.02	Drill Rig and 2-Man Crew - B/T/A	HR	\$300.00	0	\$ -
01.10.03	Drill Rig and 3-Man Crew - Truck/MB	HR	\$250.00	0	\$ -
01.10.04	Drill Rig and 3-Man Crew - B/T/A	HR	\$375.00	0	\$ -
01.11.00	Drill Mud Contain/Disposal				
01.11.01	Drill Mud Contain/Disposal - Truck/MB	EA	\$200.00	0	\$ -
01.11.02	Drill Mud Contain/Disposal - B/T/A	EA	\$400.00	0	\$ -
01.12.00	Hand Probing/Wash Borings				
01.12.01	Hand Probing/Wash Borings - 2 Person Crew	HR	\$125.00	0	\$ -
01.12.02	Hand Probing/Wash Borings - 3 Person Crew	HR	\$175.00	0	\$ -
01.13.00	Field Permeability Test				

SUMMARY GEOTECHNICAL & CONTAMINATION SERVICES**FEE SCHEDULE:** 2015**PROJECT:** SR 528 Econlockhatchee Bridge Widening**PREPARED BY:** PGS**FPID:** **DATE:** 4/22/2016

Item	Description	Unit	Unit Price	No of Units	Cost
01.13.01	Field Permeability Test (0-10')	EA	\$300.00	0	\$ -
01.13.02	Field Permeability Test (10-25')	EA	\$400.00	0	\$ -
01.14.00	Temporary Piezometer				
01.14.01	Temporary Piezometer (0-50')	LF	\$25.00	0	\$ -
01.14.02	Temporary Piezometer Locking Assembly	EA	N/A	0	\$ -
01.15.00	Pavement Cores (Excluding MOT)	EA	\$100.00	0	\$ -
01.16.00	Ground Surface D.R.I	EA	\$500.00	0	\$ -
01.17.00	Field Vane Shear Strength	EA	\$400.00	0	\$ -
01.18.00	Dilatometer Sounding	HR	\$240.00	0	\$ -
01.19.00	Ground Penetrating Radar Crew - 2 Person	HR	\$250.00	0	\$ -
01.20.00	CPT Data Reduction	EA	N/A	0	\$ -
01.21.00	Maintenance of Traffic				
01.21.01	MOT - Barricades	DAY	\$50.00	5	\$ 250.00
01.21.02	MOT - Flashing Arrowboard	DAY	\$125.00	0	\$ -
01.21.03	MOT - Law Enforcement Officer	DAY	\$400.00	0	\$ -
01.21.04	MOT - Crash Truck	DAY	\$1,500.00	0	\$ -
01.21.05	MOT - Support Vehicle	DAY	\$40.00	0	\$ -
01.21.06	MOT - Signs	DAY	\$40.00	5	\$ 200.00
01.21.07	MOT - Certified Traffic Control Specialist	HR	\$75.00	0	\$ -
01.22.00	Other Support Services				
01.22.01	Support Vehicle	DAY	\$50.00	0	\$ -
01.22.02	Support Boat	DAY	\$200.00	0	\$ -
01.22.03	Heavy Equipment	DAY	N/A	0	\$ -
01.22.04	GPS Unit	DAY	\$45.00	0	\$ -
02.00.00	GEOTECHNICAL LABORATORY TESTING SERVICES				
02.01.00	Grain Size Analysis:				
02.01.01	Full Gradation	EA	\$60.00	0	\$ -
02.01.02	Single Sieve	EA	\$36.00	28	\$ 1,008.00
02.02.00	Hydrometer (FM 1-T 88)	EA	\$150.00	0	\$ -

SUMMARY GEOTECHNICAL & CONTAMINATION SERVICES**FEE SCHEDULE:** 2015**PROJECT:** SR 528 Econlockhatchee Bridge Widening**PREPARED BY:** PGS**FPID:****DATE:** 4/22/2016

Item	Description	Unit	Unit Price	No of Units	Cost
02.03.00	Organic Content (FM 1-T 267)	EA	\$40.00	12	\$ 480.00
02.04.00	Atterberg Limits:				
02.04.01	Atterberg - Liquid Limit	EA	\$38.00	4	\$ 152.00
02.04.02	Atterberg - Plastic Limit	EA	\$38.00	4	\$ 152.00
02.05.00	Natural Moisture Content (FM 1-T 265)	EA	\$11.00	14	\$ 154.00
02.06.00	Unit Weight	EA	\$40.00	1	\$ 40.00
02.07.00	Consolidation (FM 1-T 216)	EA	\$450.00	1	\$ 450.00
02.08.00	Permeability (FM 1-T 215/5-513)	EA	\$250.00	0	\$ -
02.09.00	Corrosion Series (pH, Sulfate, Chloride, Resistivity)	EA	\$145.00	12	\$ 1,740.00
02.11.00	Unconfined Compression:				
02.11.01	Unconfined Comp. - Soil	EA	\$225.00	0	\$ -
02.11.02	Unconfined Comp. - Rock	EA	\$150.00	0	\$ -
02.12.00	Limerock Bearing Ratio (FM 5-515)	EA	\$330.00	0	\$ -
02.13.00	Specific Gravity (FM 1-T 100)	EA	\$55.00	1	\$ 55.00
02.14.00	Bitumen Extraction (FM 1-T 164)	EA	\$90.00	0	\$ -
02.15.00	Aggregate Gradation (FM 1-T 30)	EA	\$60.00	0	\$ -
02.16.00	Direct Shear (ASTM D-3080)	EA	\$230.00	0	\$ -
02.17.00	Shrinkage Factor (FM 1-T 092)	EA	\$50.00	0	\$ -
02.18.00	Swell Potential (ASTM D-4546)	EA	\$50.00	0	\$ -
02.19.00	Proctor Compaction (FM 5-521/525)	EA	\$100.00	0	\$ -
02.20.00	Splitting Tensile (ASTM D-3967)	EA	\$150.00	0	\$ -
03.00.00	GEOTECHNICAL ENGINEERING AND TECHNICAL SERVICES				
03.01.00	Senior Engineer	HR	\$135.63	29	\$ 3,933.27
03.03.00	Project Engineer	HR	\$133.38	81	\$ 10,803.78
03.04.00	CADD/Computer Technician	HR	\$83.09	26	\$ 2,160.34
	GEOTECHNICAL MAN HOUR TOTAL	136	GEOTECHNICAL TOTAL		\$ 30,728.39
04.00.00	CONTAMINATION FIELD EXPLORATION				
CONTAMINATION MAN HOUR TOTAL		0	CONTAMINATION TOTAL		\$ -
AFP ADJUSTMENT					\$ -

SUMMARY GEOTECHNICAL & CONTAMINATION SERVICES**FEE SCHEDULE:** 2015**PROJECT:** SR 528 Econlockhatchee Bridge Widening**PREPARED BY:** PGS**FPID:** **DATE:** 4/22/2016

Item	Description	Unit	Unit Price	No of Unlts	Cost
PROPOSAL MAN HOUR TOTAL		136	PROPOSAL TOTAL		\$ 30,728.39

VHB

**SR 528 ECONLOCKHATCHEE BRIDGE WIDENING TO DALLAS BLVD
PROJECT No 528-131**

**Supplemental No. 1B
Scope of Services**

Supplemental Services Description:

This supplemental request covers additional services for the design of additional project plan sheets to address the need for temporary IT lines prior to muck removal and other related changes.

Project Activity 33: Intelligent Transportation Systems Analysis

Estimator: CFX Project No 528-131 - SR 528 Bridge Replacement Over The Econlockhatchee River 0

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
33.1	ITS Analysis	LS	1	0	0	Provide Temporary IT System Until Final Grading Nears Completion
33.2	Communications Plan Analysis	LS	1	0	0	Temporarily communication analysis
33.3	Lighting Protection Analysis	LS	1	0	0	
33.4	Power Subsystem	LS	1	6	6	MOC Temp Power
33.5	Voltage Drop Calculations	LS	1	0	0	
33.6	Design Documentation	LS	1	2	2	
33.7	Existing ITS System	LS	1	0	0	
33.8	Queue Analysis	LS	1	0	0	
33.9	Reference and Master ITS Design File	LS	1	0	0	
33.10	Reference and Master Communications Design File	LS	1	0	0	
33.11	Pole Elevation Analysis	LS	1	0	0	
33.12	Sign Panel Design Analysis	LS	1	0	0	By Others
33.13	Quantities	LS	1	4	4	MOC Quantities
33.14	Cost Estimate	LS	1	2	2	MOC Cost Estimate
33.15	Technical Special Provisions	LS	1	0	0	
33.16	Other ITS Analyses	LS	1	0	0	
Intelligent Transportation Systems Analysis Technical Subtotal					14	
33.17	Field Reviews	LS	1	0	0	
33.18	Technical Meetings	LS	1	0	0	Meetings are listed below
33.19	Quality Assurance/Quality Control	LS	%	5%	1	
33.20	Supervision	LS	%	5%	1	
Intelligent Transportation Systems Analysis Nontechnical Subtotal					2	
33.21	Coordination	LS	%	3%	0	
33. Intelligent Transportation Systems Analysis Total					16	

Technical Meetings

Kickoff Meeting	EA	0	0	0
Local Governments (cities, counties, MPO)	EA	0	0	0
Utility Owners	EA	0	0	0
Field Meetings	EA	0	0	0
Other Meetings	EA	0	0	0
Subtotal Technical Meetings		0	0	0
Progress Meetings (if required by FDOT)	EA	0	0	0
Phase Review Meetings	EA	0	0	0
Total Meetings		0	0	0
Carries to 33.18				

Note: Project Manager attendance at progress, phase and field review meetings are manually entered on General Task 3

Project Activity 34: Intelligent Transportation Systems Plans

Estimator:

CFX Project No 528-131 - SR 528 Bridge Replacement Over The Econlockhatchee River

Task No.	Task	Scale	Units	No. of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
34.1	Key Sheet		Sheet	0	0	0	0	
34.2	Summary of Pay Items Including Trns*port Input		Sheet	0	0	0	0	
34.3	Tabulation of Quantities		Sheet	1	2	1	2	MOC Quantities
34.4	General Notes/Pay Item Notes		Sheet	1	2	1	2	MOC Notes
34.5	Project Layout		Sheet	0	0	0	0	
34.6	Typical and Special Details		Sheet	0	0	0	0	
34.7	Plan Sheet		Sheet	10	4	10	40	MOC Plan Sheets
34.8	ITS Communications Plans		Sheet	1	4	1	4	MOC
34.9	Fiber Optic Splice Diagrams		Sheet	0	0	0	0	
34.10	Lightning Protection Plans		Sheet	0	0	0	0	
34.11	Cross Sections		Sheet	0	0	0	0	
34.12	Guide Sign Worksheet(s)		Sheet	0	0	0	0	
34.13	Special Service Point Details		Sheet	0	0	0	0	
34.14	Strain Pole Schedule		Sheet	0	0	0	0	
34.15	Overhead/Cantilever Sign Structure		Sheet	0	0	0	0	By Others
34.16	Other Overhead Sign Structures (Long Span, Monotube, etc.)		Sheet	0	0	0	0	By Others
34.17	Traffic Control Plans		Sheet	0	0	0	0	
34.18	Interim Standards		Sheet	0	0	0	0	
34.19	GIS Data and Asset Management Requirements		LS		0	0	0	
Intelligent Transportation System Plans Technical Subtotal							13	48
34.20	Quality Assurance/Quality Control		LS	%	5%		2	
34.21	Supervision		LS	%	5%		2	
34. Intelligent Transportation System Plans Total							13	52