

**19. Approve Work Order #10 to PS-561-00/BJC – Engineering and Professional Services Agreement – Wastewater Collection System Improvements and Operations, with PBS&J, Orlando (\$64,300.00).**

Work Order #10 will provide for the design, permitting, bidding and construction services for a Master Lift Station Bar Screen System at the Greenwood Lakes Wastewater Treatment Facility. Providing the bar screen system prior to the Master Lift Station not only will protect the Master Lift Station pumps from excessive wear but will also provide safer environment for the mechanism and operators to work on the equipment at ground level. The cost of the Work Order is not-to-exceed \$64,300.00.

Funds are available in account number 087801-56065000 (Water & Sewer, Construction in Progress) CIP #DG8561X. Environmental Services and Fiscal Services/Purchasing and Contracts Division recommend the Board to approve and authorize the Chairman to execute the Work Order.

WORK ORDER  
FOR  
ENGINEERING AND PROFESSIONAL SERVICES AGREEMENT (PS-561-00/BJC)  
WASTEWATER COLLECTION SYSTEM IMPROVEMENTS AND OPERATIONS

WORK ORDER NO.: 10  
PROJECT: Lift Station Upgrades  
COUNTY: SEMINOLE COUNTY, a Political Subdivision  
of the State of Florida  
CONSULTANT: POST, BUCKLEY, SCHUH AND JERNIGAN, INC.

Execution of this Work Order by the COUNTY shall serve as authorization for the CONSULTANT to provide for the above project, professional services as set out in the Scope of Services attached as Exhibit "A" to that certain Agreement of February 10, 2000 between the COUNTY and the CONSULTANT and further delineated in the specifications, conditions and requirements stated in the following listed documents which are attached hereto and made a part hereof.

ATTACHMENTS:

- Drawings/Plans/Specifications
- Scope of Services
- Special Conditions
- \_\_\_\_\_

The CONSULTANT shall provide said services pursuant to this Work Order, its attachments and above-referenced Agreement which is incorporated herein by reference as if it had been set out in its entirety. Whenever the Work Order conflicts with said Agreement, the Agreement shall prevail.

TERM: This Work Order shall terminate upon completion of the Scope of Services or thirty (30) days after completion of the Construction Project.

**METHOD OF COMPENSATION:**

(a) This Work Order is issued on a:

- FIXED FEE BASIS
- TIME BASIS METHOD WITH A NOT-TO-EXCEED AMOUNT
- TIME BASIS METHOD WITH A LIMITATION OF FUNDS AMOUNT

(b) The compensation is based on a "Fixed Fee Basis". The CONSULTANT shall perform all work required by this Work Order for the sum of SIXTY-FOUR THOUSAND THREE HUNDRED AND NO/100 DOLLARS (\$64,300.00). In no event shall the CONSULTANT be paid more than the Fixed Fee Amount.

Payment to the CONSULTANT shall be made by the COUNTY in strict accordance with the payment terms of the above-referenced Agreement.

It is expressly understood by the CONSULTANT that this Work Order, until executed by the COUNTY, does not authorize the performance of any services by the CONSULTANT and that the COUNTY, prior to its execution of the Work Order, reserves the right to authorize a party other than the CONSULTANT to perform the services called for under this Work Order if it is determined that to do so is in the best interest of the COUNTY.

IN WITNESS WHEREOF, the parties hereto have made and executed this Work Order on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ for the purposes stated herein.

ATTEST:

POST, BUCKLEY, SCHUH  
AND JERNIGAN, INC.

\_\_\_\_\_  
BECKY S. SCHAFFER  
Assistant Secretary

By: \_\_\_\_\_  
H. MICHAEL DYE  
Chairman of the Board

(CORPORATE SEAL)

Date: \_\_\_\_\_

BOARD OF COUNTY COMMISSIONERS  
SEMINOLE COUNTY, FLORIDA

ATTEST:

\_\_\_\_\_  
MARYANNE MORSE  
Clerk to the Board of  
County Commissioners of  
Seminole County, Florida.

By: \_\_\_\_\_  
DARYL G. MCLAIN, Chairman

Date: \_\_\_\_\_

For the use and reliance  
of Seminole County only.

Approved as to form and  
legal sufficiency.

As authorized for execution  
by the Board of County Commissioners  
at their \_\_\_\_\_, 20\_\_\_\_  
regular meeting.

\_\_\_\_\_  
County Attorney  
AC/lpk  
4/18/03 4/25/03  
w014-561

Attachment:  
Exhibit "A" - Scope of Services

Client: Seminole County Utilities  
 Activity: Design and Construction Services  
 Project: Greenwood Lakes WWTF - Screen System  
 Phase: Design and Bidding  
 Date of Estimate: 17-Apr-03 03:15 PM  
 Multipliers: Labor: 1.00 Expen: 1.00  
 Subcons: 1.00

File:  
Project No.

**LABOR COST DETAIL**

CATEGORY	Task 1.1	Task 1.2	Task 1.2	Task 1.2	Task 1.3	Task 1.4	Task 1.6	Task 1.7	Task 2	TOTAL HOURS	HOURLY RATE	TOTAL LABOR
	PDR	60% Design	90% Design	Final Design	Geo/Survey	Estimates	Meetings	Permitting	Bidding			
Project Manager										0	\$0	\$0
Sr. Engineer IV	2	2	4		1					0	\$123.10	\$0
Sr. Engineer III	6	24	12	12	3	6	9	12	16	9	\$152.40	\$1,372
Sr. Technician/Sr. CAD Operators	2	24	10	10					4	100	\$129.00	\$12,900
Secretary III/Typists	2	8	8	4					3	50	\$62.70	\$3,135
Survey Crew										25	\$48.00	\$1,200
Sr. Engineer I										0	\$0	\$0
Engineer II									8	0	\$65.70	\$0
										40	\$75.20	\$3,008
										0	\$0	\$0
										0	\$0	\$0
<b>TOTAL HOURS</b>	12	70	46	34	4	6	9	12	31	224		
<b>TOTAL LABOR COST</b>	\$1,300	\$6,192	\$4,071	\$2,969	\$539	\$774	\$1,161	\$1,548	\$3,060	\$0		\$21,615

**DIRECT COST SUMMARY**

ITEM	TOTAL											
Transportation	\$15								\$48			\$143
Computer/Software												\$0
Computer/CADD	\$12	\$144	\$60						\$24			\$300
Telephone/Courier/Postage	\$10	\$15	\$10					\$30				\$65
Internal Printing/Reprographics		\$50	\$50		\$10			\$25				\$157
Outside Printing		\$150	\$150						\$200			\$650
Geotechnical Report					1,800							\$1,800
Electrical Consultant			\$3,500						\$300			\$3,800
Structural Consultant			\$3,900						\$350			\$4,250
FDEP Permit Fee							\$500					\$500
Seminole CO. Bldg Dept FEE							\$2,322					\$2,322
<b>DIRECT \$/TASK</b>	\$37	\$359	\$270	\$7,610	\$1,810	\$0	\$72	\$2,907	\$922	\$0	<b>TOTAL DIRECT COSTS</b>	\$13,987
<b>TOTAL \$/TASK</b>	\$1,337	\$6,551	\$4,341	\$10,579	\$2,349	\$774	\$1,233	\$4,455	\$3,992	\$0	<b>TOTAL FEE =</b>	\$35,602

Client: Seminole County Utilities  
 Activity: Design and Construction Services  
 Project: Greenwood Lakes WWTF - Screen System  
 Phase: Construction  
 Date of Estimate: 17-Apr-03 01:50 PM  
 Multipliers: Labor: 1.00 Expen: 1.00  
 Subcons: 1.00

File:  
 Project No.

**LABOR COST DETAIL**

CATEGORY	Task 3.1 Geotech	Task 3.2 Meetings	Task 3.3 Submittals	Task 3.4/3.5 Site Visits	Task 3.6 Pay Requests	Task 3.7 RFIs/RFI's	Task 3.8 Final Insp.	Task 3.9 Record Dwg's	Task 3.10 FDEP Cert.	Task 3.11 Closeout	TOTAL HOURS	HOURLY RATE	TOTAL LABOR
Project Manager											0	\$0	\$0
Sr. Engineer IV		1		2							0	\$123.10	\$0
Sr. Engineer III	3	3	12	60	4	12	8	4	3	3	112	\$129.00	\$14,448
Sr. Technician/Sr. CAD Operators								8			8	\$62.70	\$502
Secretary III/Typists		1	4	4							9	\$48.00	\$432
Survey Crew											0	\$0	\$0
Sr. Engineer I		3	10	94		6					0	\$85.70	\$0
Engineer II									2	4	119	\$75.20	\$8,949
											0	\$0	\$0
											0	\$0	\$0
<b>TOTAL HOURS</b>	3	8	26	160	4	20	8	12	5	7	253		
<b>TOTAL LABOR COST</b>	\$387	\$813	\$2,492	\$15,306	\$516	\$2,304	\$1,032	\$1,018	\$537	\$688			\$25,092

**DIRECT COST SUMMARY**

ITEM	TOTAL
Transportation	\$590
Computer/Software	\$0
Computer/CADD	\$103
Telephone/Courier/Postage	\$77
Internal Printing/Reprographics	\$136
Outside Printing	\$0
Electrical Consultant	\$1,500
Structural Consultant	\$1,200
	\$0
	\$0
<b>DIRECT \$/TASK</b>	\$3,606
<b>TOTAL \$/TASK</b>	\$28,698

**SEMINOLE COUNTY  
MASTER LIFT STATION BAR SCREEN SYSTEM  
GREENWOOD LAKES WWTF**

**SCOPE OF SERVICES**

**BACKGROUND**

Seminole County (COUNTY) has requested assistance of PBS&J (ENGINEER) for the design, permitting, bidding, and construction phase services for the addition of a mechanical bar screen with by pass provisions upstream of the master lift station at the Greenwood Lakes WWTF. Design will include a installation of a mechanically cleaned bar screen, dog house manholes with a overflow weir plate to divert the raw wastewater through the new screen, screenings compactor/conveyor, and a removable FRP housing around the screen with wall opening for the conveyor.. The screen shall operate automatically based on the level differential across the screen. In the event the screen fails to start and becomes blinded, the weir plate installed in the upstream doghouse manhole will divert the flow to the existing manhole. The FRP housing would be connected to the existing odor control system. The anticipated scope of services will include the following tasks:

**TASK 1 – DESIGN AND PERMITTING PHASE**

The scope below is based following assumptions and/or information provided by the COUNTY:

- Screen structure depth is assumed to be approximately 16 feet.
- Two doghouse manholes would be installed on the existing influent sewer line to divert the flow through the new screen structure. An overflow weir plate shall be installed in the upstream manhole.
- The screenings dumpster is assumed to sit outside. The conveyer shall be equipped with a screenings bagger. The screen shall be enclosed by a portable/removable pre-engineered FRP shelter for odor control and to facilitate the screen removal for repair and maintenance. No custom building design is included in the scope.
- A single tall screen at the required depth shall be included in the design.
- No new odor control system design is included in the scope. The FRP housing shall be connected to the existing odor control system.
- Design will be based on the site plan information provided by COUNTY.
- The screen structure and the manholes shall be lined for protection from chemical attack.
- COUNTY will provide a copy of the current WWTF operating permit.
- A total allowance of \$2,822.00 is included in the budget for estimated permit fees.

**Task 1.1 – Preliminary Design**

ENGINEER will meet with the COUNTY at the project site to discuss the major features of the desired screening system and establish the approximate location for the new facility. Based on these discussions with the COUNTY, the ENGINEER will prepare a preliminary design report (PDR) describing the improvements and the selected equipment. Based on the approved PDR, ENGINEER will prepare final plans and specifications suitable for bidding purposes.

**Task 1.2 – Final Design**

It is assumed that the COUNTY will provide the front-end documents (Division 0). Review sets of documents will be provided at 60%, 90%, and 100% level of completion.

**Task 1.3 – Surveys and Geotechnical Services**

ENGINEER will retain a subconsultant to conduct a geotechnical investigation. Investigation will include one soil boring and subsequent report, which will be used as the basis of design for the structure foundation. Prior to design ENGINEER will request from the COUNTY geotechnical data from previous investigations for this area. If deemed appropriate ENGINEER will use that data instead of conducting aforementioned boring. If the existing soils report is sufficient for the design purposes a credit will be provided.

Because the screen structure will be located on an existing wastewater treatment plant site, it is assumed that the ENGINEER may utilize COUNTY record drawings, property, and other surveys of existing sites in lieu of significant survey work. Therefore, no survey services are included in this scope of work. To supplement existing available survey information, the ENGINEER will use the top of the existing manhole as a benchmark for vertical and horizontal controls.

**Task 1.4 – Estimate of Probable Cost**

ENGINEER will provide an opinion of probable cost with the PDR and at the 100% design phase.

**Task 1.5 – Deliverables**

ENGINEER will provide the following deliverables:

- Draft PDR and Final PDR (2 copies)
- 60% plans/specifications (3 copies)
- 90% plans/specifications (3 copies)
- 100% plans/specifications (3 copies)

**Task 1.6 – Review Meetings**

ENGINEER will attend formal review meetings with COUNTY to receive written comments at the 60%, 90%, and 100% stages.

**Task 1.7 – Permitting**

ENGINEER will prepare permit applications required by the COUNTY's Building Department. An allowance for the estimated permit application and inspection fee in the amount of \$2322.00 (\$45 Application fee + Inspection fee @ \$4/\$1000 of construction cost of the project) is included in the budget.

ENGINEER will prepare a FDEP minor permit modification letter to submit to the FDEP to add the new screen system at the existing WWTF site. An allowance for the permit modification fee in the amount of \$500.00 is included in the budget.

No other permit services are anticipated or included herein.

**Task 1.8 – Final Deliverables**

ENGINEER will provide the following deliverables:

- One set of Mylar reproducible of 100% plans
- One set of unbound technical specifications for bid sets
- One (1) electronic set of plans (ACAD 2000)
- One (1) electronic set of specifications (MS Word)

**TASK 2 - BIDDING SERVICE****Task 2.1 – Pre-Advertise Meeting**

ENGINEER will attend pre-advertised meeting with Purchasing Division to assist in setting up the project for bid and to set the schedule.

**Task 2.2 – Pre-bid Conference**

The COUNTY will issue bidding documents to prospective bidders. The ENGINEER will attend a pre-bid conference at a location selected by the COUNTY. The ENGINEER will answer questions as appropriate and take meeting minutes.

**Task 2.3 – Addenda**

Purchasing will receive the questions during the bid. The ENGINEER will prepare responses to those written questions provided by Purchasing and in consultation with the COUNTY'S Project Manager and forward them to Purchasing. Purchasing will issue all addenda. The budget is based on preparing one addendum.

**Task 2.4 – Bid Opening and Evaluation**

The COUNTY will tabulate the bids for the project, and the ENGINEER will review the bid packages from each bidder, and contact references for the apparent low bidder. The ENGINEER will summarize the findings of the bid evaluation and make recommendation of award/reject in writing to the COUNTY'S Project Manager.

**Task 2.5 – Attend Pre-Award Meeting**

ENGINEER will attend pre award meeting at a location selected by the COUNTY and take meeting minutes and submit minutes to all attendees.

**TASK 3 – CONSTRUCTION PHASE SERVICES**

Construction phase services are based on the following assumptions:

- The total construction time will not exceed six (6) months.
- The time when field construction activities requiring site visits will not exceed sixteen (16) weeks.
- It is assumed that during the initial to (2) months (shop drawings submittal and review period) from Notice to Proceed (NTP), the bi-weekly meeting will not be required and only monthly meetings (two) will be held during this phase. The Engineer's project engineer or designee will make construction site visits.

**Task 3.1 – Geotechnical Services During Construction**

The ENGINEER will prepare a scope of geotechnical services required during construction for material testing. Based on this scope, the COUNTY will contract directly with a geotechnical firm.

**Task 3.2 – Pre-Construction Meeting**

Attend pre-construction conference, take meeting minutes and submit minutes to all attendees.

**Task 3.3 – Shop Drawings**

Review and comment in consultation with the COUNTY Project Manager all shop drawings. It is assumed that up to a total of eight (8) submittals with two (2) re-submittals will be reviewed.

**Task 3.4 and 3.5 – Site Visits/Progress Meetings**

Conduct site visits to observe the construction for general conformance with the approved plans and specifications. It is assumed that for the first ten weeks only two (2) visits will be required. For the

remaining 16 weeks, we estimate that only 8 hour/week, as opposed to 12 hours/weeks included in the RFP will be adequate. Therefore, we have allocated 8-hours/per week, which results in a total of 144 hours for site visits and bi-weekly meetings. Should the construction schedule require additional site visits, these services will be provided as an additional service as mutually agreed by COUNTY and ENGINEER.

### **Task 3.6 – Pav Requests**

Review and approve monthly contractor pay requests before submittal to the COUNTY'S Project Manager.

### **Task 3.7 – RFI's and Change Orders**

Review up to four (4) RFI's, process up to one change order, and make a recommendation to the COUNTY'S Project Manager for acceptance of change order items.

### **Task 3.8 – Final Completion Site Visit**

Attend substantial and final completion site visits.

### **Task 3.9 – Record Drawings**

Prepare record drawings based on contractor's red line as-built markups. Provide one set of reproducible record drawings and AutoCAD files to the COUNTY.

### **Task 3.10 – FDEP Certificate of Completion**

Engineer will prepare and submit FDEP construction completion certification.

### **Task 3.11 – Closeout Documents**

The ENGINEER will process the necessary close out documents from the Contractor and forward to the COUNTY for final pay release and project closeout.

## **SERVICES PROVIDED BY COUNTY**

The ENGINEER will rely on information and services provided by the COUNTY, or others retained by COUNTY, in executing the services in this scope of work. The information and services include but is not limited to the following:

- Timely review and comment on deliverables.
- Access to the sites for field investigations.

- Electronic file copies of existing site conditions and facilities.
- Preparation of front-end documents (Division 0) including bidding requirements, bid forms, contracts, bonds, insurance, general and supplementary conditions.
- Reproduction and distribution of contract documents and addenda for the purpose of securing bids.
- Provide two (2) sets of contract documents for ENGINEER'S use during bidding.
- Conduct pre-bid and pre-award conferences.
- Perform legal reviews of contract documents and bids.
- Provide conformed contract documents to ENGINEER (two sets) and Contractor (as required by COUNTY's front-end documents).

## SCHEDULE

The services described above are anticipated to be completed in accordance with the following summary. Unless otherwise noted, all time durations shown below are working days measured from the date upon which the ENGINEER received the notice to proceed and appropriate work order, and after subsequent review and comment periods by the COUNTY after submission of deliverables.

### Task 1.1

- |  |         |
|--|---------|
| • Preliminary design report  | 15 days |
| • 60 % plans/specifications (Days following approval of PDR)                       | 45 days |
| • 90 % plans/specifications<br>(Days following receipt of all COUNTY 60% comments) | 15 days |
| • 100% plans/specifications<br>(Days following receipt of all COUNTY 90% comments) | 15 days |

## COMPENSATION

Compensation for the services described herein will be on a Lump Sum Basis Method as described in the Agreement. The Lump Sum fee for the services described herein is \$64,300. Attached is a breakdown of the fee.