

To: File

From: Reuben Meador / Alvin Shipmon (GOHSEP)

Date: 5/23/2012

Re: Cost Analysis: Engineering Cost, St. Charles Parish 1603n-089-0004

In response to the request by St. Charles Parish to assist in the determination of cost reasonableness, regarding Engineering fees for the west bank water plant generator elevation project proposed by GSE Associates, LLC, (GSE) the following applies:

Findings

During the review of GSE's proposed engineering fees for the referenced grant project, it was determined that St. Charles Parish has to complete a cost analysis as identified in 44 CFR 13.36, for professional services to ascertain the - reasonableness of the proposed engineering fees.

Action/Research

After careful review of the GSE Associates, LLC fees as listed in the project budget, the engineering fees, according to the "Cost Curve A" with an added .1 percent modification factor based on project complexity, developed by the Division of Administration for the State of Louisiana and the 2011 BCI* & CPI (See Attached) a portion of the fee amounting to \$652 for basic engineering/architectural services appears to fall outside the cost curve A; however, based on the complexity of the project, the entire fee of \$23,100 appears to be reasonable and eligible for reimbursement by the Governors Office of Homeland Security and Emergency Preparedness.

Complexity: This project is in an existing plant. This requires that all existing systems be kept running while the modifications, changes are made. Creates extra work as opposed to a new plant where only the new design has to be considered. In effect this involves a design for 2 sets of conditions.

The project site physical space is limited which requires an exact measurement of existing equipment locations and conditions. To make space for the new design, will require moving, relocating, retesting existing equipment etc. Different layouts will need to be investigated in order to determine the most feasible secure space for the generator. This may require several design layouts to achieve an acceptable layout for the owner. (See supporting Documentation).

Supporting Regulations

Louisiana Capital Improvement projects procedural manual for design and construction:

5.2.3 – Medium Complex (1.1 of basic compensation), to be determined by Owner projects of special character and/or function requiring an above average level of skill in design and containing more than ordinary requirements of scientific, mechanical, and electrical equipment. (See Attached Calculation Chart)

SEE ATTACHED COST CURVE	
Total of Construction Costs	\$192,349
Reasonable Eng & Design Fee According to the 2011 FP&C – BCI & CPI using a 1.1 Modification factor	\$22,448
2011 Percentage based on AFC	11.6769%
Providence Engineering total engineering fee charged	\$23,100
Additional Modification factor used based on project complexity	1.1
Amount outside of cost curve A	\$652
Is the final amount after allowances, additions, and deductions eligible and reasonable?	YES

Field Survey and Record Drawings

The lump sum survey fees and rate schedule are described below:

Rate	Rate Classification	Wage Rate	Total
21 Hours	Party Chief	@ \$65.00	\$1,365.00
21 Hours	Instrument Man	@ \$47.00	\$ 987.00
21 Hours	Survey Vehicle	@ \$13.50	\$ 283.50
1.5 Days	Trimble GPS System	@ \$275.00	\$ 412.50
1.0 Day	Trimble Total Station	@ 150.00	\$ 150.00
TOTAL			\$3,198.00


Reimbursable Expenses:

6 sets of Construction plans and specifications for potential bidders @\$110/set = \$660

Concurrence on modification factor and project complexity description

I Alvin Shipmon, GOHSEP BCA Analyst/Engineer, have reviewed the project complexity explanation as described by Mr. Clay Breaud of GSE Associates, LLC. I concur with his explanation and description of the project as well as the (1.1) modification factor added to the computation fee chart.

Signature



Date

05-24-2012

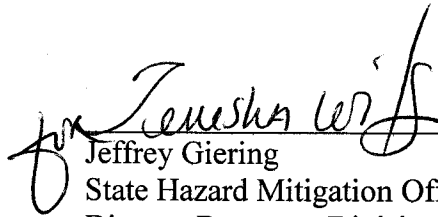

Jeffrey Giering
State Hazard Mitigation Officer
Disaster Recovery Division

EXHIBIT "B"
2011

COMPUTATION OF FEE

PROJECT No.: 1603-089-0004 PART:

PROJECT NAME: West Bank Water Plant Generator Elevation

FUNDS AVAILABLE FOR CONSTRUCTION (AFC) = \$192,349

FEE COMPUTATION:

FEE % for calculation = $\frac{46.10}{\text{Log}(\text{AFC}(1975 \text{ BCI}/\text{Current BCI}))}$ = 9.7849%

RENOVATION FACTOR (RF) = 1.000 (None)

MODIFICATION FACTOR (MF) = 1.100

FEE = FEE % (AFC(1975 BCI/Current BCI)(Current CPI/1975 CPI)(RF)(MF) =
= \$ 22,448.00

FEE as a percentage of AFC: 11.6705%

<u>INDICES:</u>		BCI	CPI
1975		1306	53.8
Current	2010	4883	218.1

Professional Liability Insurance Coverage shall be in the amount required by the following schedule unless otherwise indicated. No deductible shall be in excess of 5% of the amount of the policy. The prime Designer shall be fully responsible to the Owner for his associates and his professional consultant's work. Responsibility for professional liability coverage for the total project design (including all professional consultants) rests solely with the prime Designer.

SCHEDULE
LIMITS OF PROFESSIONAL LIABILITY

<u>Construction Cost</u>	<u>Limit of Liability</u>
0 to \$1,000,000	\$500,000
\$1,000,000 to \$10,000,000	\$1,000,000
\$10,000,000 to 20,000,000	\$1,500,000
\$20,000,000 to \$50,000,000	\$3,000,000
Over \$50,000,000	To be determined by Owner



PROVIDENCE/GSE
GSE ASSOCIATES, LLC

May 10, 2012

Mr. Robert Brou
Director of Waterworks
St. Charles Parish
P. O. Box 108
Luling, LA 70070

Re: Revised Proposal and Scope
Westbank Water Plant Generator and
Critical Equipment Elevation
St. Charles Parish, Louisiana

Dear Mr. Brou:

Thank you very much for selecting GSE to perform engineering services for the referenced project. Based upon our field trip and discussions with you, we anticipate GSE's revised scope of services to be as follows:

- 1) Elevate generator as allowable within confines of existing building roof line. This work includes providing support beams, modifying exhaust and muffler system, elevating auxiliary systems, and associated items of work. St. Charles Parish will furnish temporary generator and fuel during the modifications of the permanent generator. GSE will specify coordination of this activity during construction.
- 2) Elevate A, B, C and D plant main disconnects on outside of building. GSE will specify and coordinate these activities to ensure continuous operation of the plant.
- 3) Install owner supplied transfer switches on elevated stand outside of building.
- 4) Install generator distribution switchboard or elevated stand inside building.

GSE will survey existing site conditions and prepare measured drawings as needed for preparation of plans and specifications. The compliance provisions for federally assisted contracts will be included in the contract documents. St. Charles Parish will administer the compliance of these documents during the construction and provide necessary permits. GSE will provide bidding and construction administration services. St. Charles Parish will provide construction oversight (construction inspection) as needed during the construction phase.

Based upon GSE's most recent visit to the site and discussions with representatives of the waterworks, it was agreed to elevate and replace main disconnects on outside of building. In order to conform to present codes and not hinder access at doorway, these panels may have to be rotated and moved away from building. These details along with cost will have to be worked out in the design phase of the project.

Robert Brou

Director

St. Charles Parish Department of Waterworks

P.O. Box 108

Luling, Louisiana 70070

phone (985) 783-5110

fax (985) 785-2005



From: Clay Breaud [mailto:claybreaud@providenceeng.com]

Sent: Thursday, April 26, 2012 11:24 AM

To: Rob Brou

Subject: RE: HMGP#1603-089-0004 West Bank Water Plant Generator Elevation

Rob,

A) Basic Service Fee Complexity Explanation:

Project is in an existing plant. This requires that all existing systems be kept running while we make modifications, changes i.e. creates extra work as opposed to a new plant where only the new design has to be considered. In effect this involves a design for 2 sets of conditions.

Physical space is limited at the site. This requires an exact measurement of existing equipment locations and conditions. To make space for the new design, will require moving, relocating, retesting existing equipment etc. Different layouts will have to be investigated until we can fit the equipment into the congested space. This may require several design layouts to achieve an acceptable layout for the Owner.

B. Field Survey and Record Drawings:

Field survey – 2.5 days of a 2 man survey crew including equipment and vehicle to perform topographic survey and make precise measurements of existing equipment locations and conditions @ \$1,269 /day = \$3,170.

Record Drawings – Prepare electronic as-built drawings of the project for the owner.

~~Draftsmen/CAD Operator 8 hours @ \$68 = \$544~~

~~Engineer V 2 Hours @ \$148 = \$296~~

C. Reimbursable Expenses:

- ~~1) Recordation of Construction Contract & Substantial Completion Certificate in the Courthouse Records = \$340~~
- ~~2) 6 sets of Construction plans and specifications for potential bidders @ \$110/set = \$660~~

If we can be of further assistance, please let me know.

Thanks,

Clay

From: Rob Brou [mailto:rbrou@scpwater.org]

Sent: Tuesday, April 24, 2012 1:38 PM

To: Clay Breaud

Subject: FW: HMGP#1603-089-0004 West Bank Water Plant Generator Elevation

Robert Brou

05/23/2012

Mr. Robert Brou
Director of Waterworks
St. Charles Parish
May 10, 2012
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GSE proposes to provide these services in a lump sum amount as follows:

- A. Basic Engineering Services and Record Drawings \$ 23,100.00
- B. Prepare Measured Drawings and Field Survey (See attached Rate Schedule) \$ 3,198.00
- | | | | |
|----------|-----------------------|-------------|---------------|
| 21 Hrs. | Party Chief | @ \$ 65.00 | = \$ 1,365.00 |
| 21 Hrs. | Instrument Man | @ \$ 47.00 | = \$ 987.00 |
| 21 Hrs. | Survey Vehicle | @ \$ 13.50 | = \$ 283.50 |
| 1.5 Days | Trimble GPS System | @ \$ 275.00 | = \$ 412.50 |
| 1.0 Day | Trimble Total Station | @ \$ 150.00 | = \$ 150.00 |
- C. Reimbursable Expenses (Reproduction Cost) \$ 660.00
6 sets of Construction Plans and Specifications @ \$110.00/Ea.

These fees are based upon the agreed to final design. Any cost associated with redesign due to budget constraints shall be renegotiated with the Owner. If this proposal is acceptable and you would like GSE to prepare an engineering agreement, please advise.

Should you have any questions or would like to discuss this project further, please contact me at 991 Grand Caillou Road, Houma, Louisiana, 70363, phone number (985) 876-6380, fax number (985) 876-0621.

Sincerely,

Providence/GSE
GSE Associates, LLC



Clay Breaud
Company Manager

CB/dbp

Attachment

cc: Mr. Harry Hawney - GSE Associates, LLC