



CONSOLIDATED COMMISSION ON UTILITIES
Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671)649-3002 | guamccu.org

RESOLUTION NO. 45-FY2017

**RELATIVE TO APPROVAL OF OWNER'S SITE REPRESENTATIVE
(CONSTRUCTION MANAGEMENT) SERVICES CONTRACT FOR THE DESIGN
AND CONSTRUCTION OF THE UMATAC-MERIZO WASTEWATER TREATMENT
PLANT UPGRADE
PROJECT S17-002-BND**

WHEREAS, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities (“CCU”) has plenary authority over financial, contractual and policy matters relative to the Guam Waterworks Authority (“GWA”); and

WHEREAS, the Guam Waterworks Authority (“GWA”) is a Guam Public Corporation established and existing under the laws of Guam; and

WHEREAS, GWA has a number of critical Court Order (“CO”) projects including a complete evaluation of the Umatac-Merizo Wastewater Treatment Plant (WWTP) to determine what improvements are necessary at the plant to achieve compliance with the WWTP’s National Pollutant Discharge Elimination System (NPDES) permit through the United States Environmental Protection Agency (USEPA), as stated in Paragraph 15 of the 2011 Court Order, as well as the completion of construction activities identified in the approved plan resulting from the evaluation noted above, as stated in Paragraph 16 of the 2011 Court Order; and

WHEREAS, the System Evaluation Report required under Paragraph 15 of the 2011 Court Order, completed in December of 2013 by GWA’s Program Management Office (PMO), resulted in a recommendation to GWA and USEPA that, with suitable WWTP upgrades and coordination with regulatory agencies, continued discharge to the Toguan River could be a viable and cost-effective option; and

//

1 **WHEREAS**, in June of 2016, GWA’s PMO completed a Umatac-Merizo Wastewater
2 Treatment Plant Upgrade Project Basis of Design Report, which provided a preliminary design
3 intended to meet the June 30, 2016 interim deadline to execute a design contract, as described in
4 Paragraph 16 of the 2011 Court Order; and

5
6 **WHEREAS**, GWA Management, in an effort to comply with the intent of the 2011
7 Court Order interim deadline to execute a construction contract by June 30, 2017, determined
8 that the most expedient procurement process would be to proceed with a design-build project;
9 and

10
11 **WHEREAS**, in June of 2017, GWA entered into a contract with “Core Tech – Hawaiian
12 Dredging, LLC” to perform the Design and Construction of the Umatac-Merizo Wastewater
13 Treatment Plant Upgrade; and

14
15 **WHEREAS**, GWA also required construction management type engineering services to
16 oversee the design build construction activities and as such advertised the Request for Proposals
17 (RFP 07-ENG-2017) soliciting statement of qualifications from experienced and qualified
18 engineering firms to provide Owner’s Site Representative (Construction Management) Services
19 for the Design and Construction of the Umatac-Merizo Wastewater Treatment Plant Upgrade
20 project, and received and reviewed proposals from five proposers; and

21
22 **WHEREAS**, RFP packages were downloaded by multiply engineering firms, from which
23 GWA received proposal submittal from five (5) firms before the RFP submittal deadline; and

24
25 **WHEREAS**, the GWA A-E Selection Committee reviewed and evaluated the five (5)
26 proposals and generated the ranking of the the most qualified firm (see EXHIBIT A-Evaluation
27 Score) which indicated “SSFM International” as being the highest-ranked firm; and

28
29 **WHEREAS**, the A-E Selection Committee submitted, through GWA’s engineering
30 division, for the General Manager’s (GM) Determination of selection, the ranking of the firms
31 evaluated from which GWA can begin scope and fee negotiation with the selected firm or any
32 successor at interest thereto (see EXHIBIT B- GM Determination); and

1 **WHEREAS**, GWA’s PMO negotiated the scope and fee with SSFM, and recommend for
2 acceptance the final scope and fee submitted by SSFM in the amount of One Million Two
3 Hundred Seventy Eight Thousand Fifty Dollars (\$1,278,050.00) (SEE EXHIBIT C – SCOPE
4 AND FEE PROPOSAL). The GWA Chief Engineer has reviewed the negotiated scope and fee
5 proposal and concurs with the findings of the PMO that it is reasonable and responsible; and
6

7 **WHEREAS**, GWA Management seeks approval of the fee proposal amount of One
8 Million Two Hundred Seventy Eight Thousand Fifty Dollars (\$1,278,050.00), plus a ten percent
9 (10%) contingency of One Hundred Twenty Seven Thousand Eight Hundred Five Dollars
10 (\$127,805.00), for a total amount of One Million Four Hundred Five Thousand Eight Hundred
11 Fifty Five Dollars (\$1,405,855.00); and
12

13 **WHEREAS**, funding for this project will be from the GWA Bond Funds under the line
14 items CIP WW 12-07 “Umatac Merizo STP Replacement”, System Development Charge Funds
15 and Internally Funded CIP; and
16

17 **NOW BE IT THEREFORE RESOLVED**, the Consolidated Commission on Utilities
18 does hereby approve the following:

- 19 1. The recitals set forth above hereby constitute the findings of the CCU.
- 20 2. The CCU finds that the terms of the scope and fee proposal submitted by SSFM
21 are fair and reasonable.
- 22 3. The CCU finds that the terms and conditions set by GWA relative to
23 commencement of work activities are fair and reasonable and serve as a measure
24 of Quality Assurance/Quality Control (QA/QC).
- 25 4. The CCU hereby authorizes the management of GWA to enter into a contract
26 with SSFM in the amount of One Million Two Hundred Seventy Eight Thousand
27 Fifty Dollars (\$1,278,050.00) (EXHIBIT C).
- 28 5. The CCU hereby further approves the total funding amount for this project of One
29 Million Two Hundred Seventy Eight Thousand Fifty Dollars (\$1,278,050.00),
30 plus a ten percent (10%) contingency of One Hundred Twenty Seven Thousand
31 Eight Hundred Five Dollars (\$127,805.00), for a total amount of One Million
32 Four Hundred Five Thousand Eight Hundred Fifty Five Dollars (\$1,405,855.00).



GUAM WATERWORKS AUTHORITY

Gloria B. Nelson Public Service Building • 688 Route 15 • Mangilao, Guam 96913

June 1, 2017

To: Thomas F. Cruz, P.E., Chief Engineer

From: Gloria P. Bensen 
Chairperson, Consultant Selection Board

Subject: RFP-07-ENG-2017
Owner's Site Representative (Construction Management) Services for the Design and Construction of the Umatac-Merizo Wastewater Treatment Plant Upgrade
GWA Project No. S17-002-BND

The following information is intended to document the evaluation process undertaken for the referenced solicitation.

EVALUATION COMMITTEE MEMBERS	
Name	Title
John Davis, P.E.	CIP Wastewater Engineer Supervisor
Rylma Carino	Junior Engineer
David Fletcher	Operations and Maintenance Manager
Irina Constantinescu, P.E.	Brown and Caldwell, PMO

Consultant	Evaluation Score				Total	Rank
1. AmOrient Engineering	90	90	87	73	340	2
2. E.M. Chen & Associates, Inc.	70	88	69	49	276	5
3. TG Engineers, PC	90	92	96	61	339	3
4. EMPSCO Engineering Consultants	80	92	80	86	338	4
5. SSFM International	85	90	97	85	357	1

Scores were evaluated based on sum of the individual scores. The recommendation of the evaluation committee is shown in the ranking above.

Please review and approve at your earliest convenience so that we may proceed with the notification letters.



GUAM WATERWORKS AUTHORITY

"Better Water. Better Lives."

Gloria B. Nelson Public Service Building
688 Route 15, Mangilao, Guam 96913

MEMORANDUM

To: Miguel C. Bordallo, P.E., General Manager

From: Thomas F. Cruz, P.E., Chief Engineer *Thomas F. Cruz*

Subject: RFP-07-ENG-2017
 Owner's Site Representative (Construction Management) Services for the Design and Construction of the Umatac-Merizo Wastewater Treatment Plant Upgrade
 GWA Project No. S17-002-BND

Date: June 1, 2017

The Selection Committee has completed all necessary actions for selecting the most qualified consultant for the referenced solicitation. All proposals were reviewed and scored according to the conditions established in the solicitation. The evaluation summary sheet is attached for your information.

The committee recommends the following top three (3) firms in order of preference for the project:

1. SSFM International
2. AmOrient Engineering
3. TG Engineers, PC

Concurred:

[Signature]
 VINCENT E. GUERRERO
 Supply Management Administrator

6/2/17
 Date

GENERAL MANAGER'S DETERMINATION

Consultant Firm Selected:

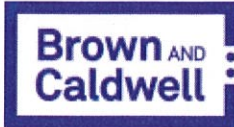
SSFM Int.

Remarks:

[Signature]
 MIGUEL C. BORDALLO, P.E.
 General Manager

6.7.17
 Date

July 12, 2017



Mr. Thomas Cruz, P.E.
Chief Engineer
Guam Waterworks Authority
Gloria B. Nelson Public Service Building
688 Route 15
Mangilao, Guam 96913

148556

Subject: Letter of Recommendation for Owner's Site Representative (Construction Management) Services for the Umatac-Merizo Wastewater Treatment Plant Upgrade; GWA Project Number S17-002-BND

Dear Mr. Cruz:

Brown and Caldwell (BC) has reviewed and negotiated with SSFM International, Inc. (SSFM) the construction management services scope and fee for the Umatac-Merizo Wastewater Treatment Plant Upgrade project. BC recommends executing a contract with SSFM to provide construction management services for the aforementioned project. Their fee and scope proposal associated with construction management services was reasonable and responsible. Table 1, below, indicates the cost change made between SSFM's initial and final fee proposal as result of negotiations. During negotiations, SSFM agreed to reduce their fee in some areas but were also directed by BC to add scope in others, leading to a higher final fee than proposed initial fee. BC also directed SSFM to prepare a time & material (T&M) proposal, rather than a lump sum proposal. Attachment 1 provides the revised detailed summary of SSFM's scope and fee proposal.

Table 1: Fee Proposal Summary

	Original Proposed Fee	Final Negotiated Fee
	\$1,231,707.00	\$1,278,050.00
Percent of Project Cost ¹	7%	7%

¹Percent of Project Cost Based upon select design-build bid of \$18,645,450.00.

414 W Soledad Avenue, Suite 602
Hagatna, GU 96910

T: 671.300.4220

Exhibit C (2 of 25)

If you have any questions, please call me at (671) 300-4223.

Respectfully Submitted,

Brown and Caldwell

A handwritten signature in black ink, appearing to read "Bill Chang", with a long horizontal flourish extending to the right.

Bill Chang, P.E.
Supervising Engineer

cc: Erickson Marble, Brown and Caldwell
Gloria Bensen, Guam Waterworks Authority

Attachments:

1. Final Negotiated CM Scope and Fee

July 5, 2017

2017_085.000

CLIENT: Guam Waterworks Authority
Gloria B. Nelson Public Service Building
688 Route 15
Mangilao, GU 96913

Attention: Mr. Thomas F. Cruz, P.E., Chief Engineer

PROJECT: Owner's Site Representative (Construction Management) Services for the Design and Construction of the Umatac-Merizo Wastewater Treatment Plant Upgrade; GWA Project No. S17-002-BND

REFERENCE: GWA RFP 07-ENG-2017

PROPOSAL FOR PROFESSIONAL SERVICES

We are pleased to submit the following proposal between **Guam Waterworks Authority** (hereinafter referred to as CLIENT) and **SSFM INTERNATIONAL, INC.** (hereinafter referred to as SSFM) to provide OWNERS SITE REPRESENTATIVE services for this project as described herein.

ATTACHMENTS

This PROPOSAL together with the following attachments constitute the entire agreement between the parties herein:

1. EXHIBIT "A": Scope of Services
 - a. Description of Services
 - b. Basic Scope of Work
 - c. Work Not Included in This Agreement
 - d. Information Required From Client
 - e. Assumptions Made
2. EXHIBIT "B": *Schedule of Billing Rates*

GENERAL DESCRIPTION OF THE PROJECT

The project is described as the design and construction of the Umatac-Merizo Wastewater Treatment Plant (WWTP) Upgrade project. GWA plans to improve the WWTP, including rehabilitation or installation of pump stations, headworks, aerated lagoon, storage tank, overland flow system, and UV disinfection system. The goal of the Owner's Site Representative (OSR) is to observe, advise, and assist GWA with the Design-Build project.

SERVICES TO BE PROVIDED

Description of Owner's Site Representative Services as described in Owner's Site Representative (CM) for Umatac-Merizo WWTP Upgrade (See Exhibit A – Scope of Services)

OWNERS SITE REPRESENTATIVE (OSR) CHARGES

For the basic scope of work shown hereinbefore, compensation for our services shall be calculated on a Time and Materials basis using the billing rates of assigned personnel in effect at the time of these services are performed plus 4.166% Guam Tax, not to exceed \$1,278,050.00. See Exhibit B – Schedule of Billing Rates and estimates for Not-To-Exceed amount.

July 5, 2017

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ADDITIONAL SERVICES: Services beyond the scope indicated above shall be on a Time and Material basis using billing rates in effect at the time these services are performed, plus 4.166% Guam Tax. However, before any additional services are provided, SSFM must receive the CLIENT's consent to those services.

Weather Delays or Contractor's Contract Extensions

1. SSFM's fees for the services covered by this Agreement are based on an estimated construction contract time period and without allowances for construction contract extensions caused by weather delay days or other reasons.
2. For construction contract time extensions, Client agrees to compensate SSFM for services provided during this period on a Time and Material basis using the billing rates of SSFM's assigned personnel plus 4.166% Guam Tax.

Overtime Pay

1. SSFM's estimate of fee's for the services covered by this Proposal are based on regular 5 days a week and 8 hours per day excluding weekends and holidays. Overtime work, if necessary, shall be charged to GWA and/or Contractor as approved by GWA.

PAYMENTS ON ACCOUNTS AND LATE PAYMENTS: Invoices for our services shall be submitted, at our option, either upon completion of any phase of service or on a monthly basis. Invoices shall be payable when rendered and shall be considered "past due" if not paid within 30 days after the invoice date. A service charge will be charged at the rate of 1.5% (18% annual rate) per month or the maximum allowable by law on the then outstanding balance of "past due" accounts. In the event that any portion of an account remains unpaid 90 days after billing, SSFM may, without waiving any claim or right against the CLIENT, and without liability whatsoever to the CLIENT, suspend the performance of the service.

REIMBURSABLES (MATERIALS):

1. Reimbursable expense means the expense incurred directly or indirectly in connection with the project such as, but not limited to, off-island transportation, lodging, meals, long distance telephone calls and facsimile transmissions, overnight deliveries, internet, computer and equipment lease or rental costs, and the cost of reproductions beyond those normally required for coordination and information purposes.
2. Reimbursable expenses shall be billed at a multiple of 1.15 times the cost incurred plus Guam Tax.

SCHEDULE OF SERVICES: Excluding CLIENT and OWNER review periods, significant scope changes and/or redesigns by CLIENT, or other delays beyond the control of SSFM, the time schedule for the proposed scope of services should proceed according to the following time estimates:

<u>Phase</u>	<u>Estimated Time</u>
Pre-Construction Design Phase	3 months after notice to proceed (NTP)
Construction Phase	17 months after Pre-Construction Phase
Post-Construction Phase	2 months after Construction Phase



Exhibit C (5 of 25)

Guam Waterworks Authority
Owner's Site Representative (Construction
Management) Services for the Design and
Construction of the Umatac-Merizo Wastewater
Treatment Plant Upgrade
Page 3

July 5, 2017

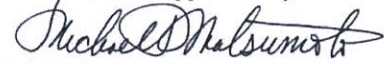
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Thank you very much for this opportunity to provide professional services for this PROJECT.

SSFM INTERNATIONAL, INC.


Rizaldy B. Cortez, P.E., PMP, LEED AP
Guam General Manager / RME
Email: rcortez@ssfm.com

Reviewed and Approved By:


Michael P. Matsumoto, P.E., FACEC
President/CEO
Email: mmatsumoto@ssfm.com

Enclosures: Exhibit "A" – Scope of Services (RFP dated 6/20/17 pages 14-23)
Exhibit "B" – Schedule of Billing Rates

EXHIBIT "A"
SCOPE OF SERVICES

DESCRIPTION OF SERVICES

1. Our construction management services as outlined under "Basic Scope of Work" will be limited to the following physical limits:

The Umatac-Merizo Wastewater Treatment Plant site

BASIC SCOPE OF WORK

1. Owners Site Representative (CM Services) – Refer to attached Exhibit A-2 (RFP Scope Definition pages 14-23)

WORK NOT INCLUDED IN THIS AGREEMENT

Other than the services described in paragraphs hereinbefore, the following work are not included in this Agreement, however, SSFM can provide these services either through in-house staff or by subconsultants as additional services:

1. Design Engineering Work NOT INCLUDED
2. Design Review Work NOT INCLUDED
3. Submittal approval and RFI Responses NOT INCLUDED
4. Value Engineering Work NOT INCLUDED

ASSUMPTIONS MADE

1. OSR (CM) Field Office to be provided by the Owner.
2. Work will be completed within the estimated time shown on the SCHEDULE OF SERVICES in the cover letter.

III. SCOPE OF WORK

Owner's Site Representative (Construction Management) Services for the Design and Construction of the Umatac-Merizo Wastewater Treatment Plant Upgrade
GWA Project No. S17-002-BND

The work performed under this scope shall consist of Owner's Site Representative (Construction Management) Services for the Design and Construction of the Umatac-Merizo Wastewater Treatment Plant Upgrade project. For the purpose of clarity and alignment with the Design-Build contract for this project, this Scope of Work will hereafter use the term "Owner's Site Representative" to describe the desired professional services included under this Scope of Work. Hereafter, the terms "CM," "Construction Manager," and "Construction Management" will not be used.

GWA plans to improve the Umatac-Merizo Wastewater Treatment Plant (WWTP), including rehabilitation or installation of pump stations, headworks, aerated lagoon, storage tank, overland flow system, and UV disinfection system. The goal of the Owner's Site Representative (OSR) is to observe, advise, and assist GWA with the Design-Build project. The OSR will coordinate the construction process with the Design-Builder's designated representative at the project site. The OSR is not the Design-Builder's subcontractor, consultant, agent, or employee.

The OSR, an independent consultant and owner's representative for GWA, will have these primary functions:

- Observe construction progress on the site by the Design-Builder
- Monitor construction for conformance with the Design-Builder's plans and specifications
- Review the construction schedule relative to actual construction progress
- Review Design-Builder pay applications in comparison with construction work performed
- Receive and log Design-Builder submittals
- Keep GWA advised and informed as to project progress and cost
- Provide supporting information during the change process
- Disclose any information relevant to GWA's interest
- Make proactive recommendations to GWA for action to maintain progress and achieve the project schedule and budget
- Act in the best interest of GWA

The OSR shall not:

- Authorize any deviation from the contract documents or substitution of materials or equipment (including "or-equal" items)
- Exceed limitations of GWA's authority as set forth in the contract documents
- Undertake any of the responsibilities of the Design-Builder, construction subcontractors, project design professionals, or suppliers
- Advise on, issue directions relative to, or assume control over any aspect of the means, methods, technique, sequences, or procedures of the Work

Exhibit C (8 of 25)

- Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the Design-Builder's activities or operations
- Accept submittals from anyone other than the Design-Builder
- Have any authority with respect to GWA's occupancy of the construction, in whole or in part

GWA has retained a Program Manager, Brown and Caldwell, to assist with the administration of the GWA's capital improvement program. The selected consultant will work under the direction of the GWA General Manager, the GWA Chief Engineer, and Brown and Caldwell (Program Manager). Brown and Caldwell is the designated GWA project manager for this design-build project.

The OSR's dealings in matters pertaining to the construction in general shall be with the Design-Builder's designated representatives at the Site. The OSR's dealings with the Design-Builder's construction subcontractors and suppliers, including project design professionals, shall only be through or with the knowledge and approval of the Design-Builder.

OWNER'S SITE REPRESENTATIVE SERVICES

The OSR shall provide and maintain an appropriately sized on-site inspection staff throughout the duration of the construction period for the project. OSR responsibilities include construction monitoring and inspection, review of Design-Builder applications for payment, construction schedule assessment, construction document review, and OSR professional practice, which includes the specific activities described below. The OSR shall be responsible for the safety of their personnel at the site of the project and shall provide a written Health and Safety Plan for all OSR activities at the project site.

A general scope of services is provided. However, proposing consultants are encouraged to offer their own opinions and suggestions regarding the scope of services for the work included herein. The scope of the OSR's services, as currently envisioned by the GWA, would include, but not be limited to, the following areas of work:

A. GENERAL OSR TASKS

The OSR will provide services relating to the daily field observation, inspection, coordination, communication, and monitoring for the construction and rehabilitation work. Specific construction work components of this project include the following:

- Demolition of existing equipment and structures
- UV disinfection system and effluent flow meter installation
- Headworks construction, including influent flow meter and screens
- Aerated lagoon improvements
- Storage tank installation
- Process electrical, instrumentation and control
- Grading and drainage, including the overland flow system upgrade
- Archaeological monitoring, as needed

Exhibit C (9 of 25)

General construction assistance services consist of:

1. Project Liaison: The OSR shall serve as GWA's liaison:
 - a. With the Design-Builder regarding the construction Work.
 - b. With the Design-Builder when the Design-Builder's operations affect GWA's onsite operations.
 - c. With respect to the Design-Builder's requests for additional details or information from GWA, or for clarifications and interpretations of the contract documents.
 - d. With respect to proposed modifications of the contract documents, Change Orders, and similar matters.

2. Project Correspondence: The OSR shall review Design-Builder's correspondence, reports, and inspection documentation as required to communicate project activities and issues with GWA. The OSR shall develop a format for daily and weekly reports for the approval of GWA. At a minimum, the following reports and documents shall be provided:
 - a. Daily Construction Log: The onsite inspector shall maintain a Daily Construction Log, which shall be available to GWA for review at any time. This item is further discussed below, under "Duties of the Resident Inspector."
 - b. Weekly Status Report: The OSR shall prepare and submit a weekly construction progress report to the GWA Chief Engineer or designated project manager. The status report shall summarize the daily construction activities, weekly progress meetings with the Design-Builder, and include an updated construction schedule.
 - c. Progress Photo Log: The OSR shall prepare and retain a construction progress photo log in an organized album with phases of the project clearly labeled. The photo log shall capture all phases of the project pre-construction, during construction, and post-construction.

3. Design-Builder Applications for Payment: The OSR shall review each construction-related Application for Payment received from the Design-Builder, according to the following procedure:
 - a. Note compliance with the established procedure for Application for Payment submission, and for compliance with Bid and Contract requirements.
 - b. Meet with the Design-Builder to review each Application for Payment.
 - c. Forward the Application for Payment with recommendations to GWA, noting particularly the relationship of the payment requested to:
 - i. The Schedule of Values accepted by the Owner;
 - ii. Relevant cost of the work provisions;
 - iii. Construction completed;
 - iv. Materials and equipment delivered to the site, but not incorporated in the construction Work.

The OSR shall submit their review and recommendations within 5 working days of receipt from the Design-Builder.

4. Certificates and Operation & Maintenance Manuals: During the course of construction, the OSR shall review materials and equipment certificates, operation &

Exhibit C (10 of 25)

maintenance (O&M) manuals, and other documentation required by the contract documents to be assembled and furnished by the Design-Builder. The OSR shall note whether the documentation is applicable to the items actually installed, and deliver such documentation to GWA for its review and acceptance prior to payment for that part of the Work.

5. Project Meetings: The OSR shall attend meetings with the Design-Builder, construction subcontractors, GWA, and other stakeholders, such as Pre-Construction Conferences, progress meetings, job conferences, and other project-related meetings. The Design-Builder shall prepare an agenda and provide meeting minutes for each meeting.

6. Pre-Construction Conference: The OSR shall attend one or more Pre-Construction Conferences to discuss key contract elements, Design-Builder's construction schedule, coordination requirements, progress payment estimates, change orders, as-recorded drawings, submittals coordination, etc. The Design-Builder shall prepare an agenda and provide meeting minutes.

7. Progress Meetings: The OSR shall attend weekly progress meetings, arranged by the Design-Builder, to discuss progress of work, contract requirements, and other issues related to the administration and prosecution of the work. Prior to the weekly meeting, the OSR shall review the Design-Builder's record drawings to ensure that they are current and capture any deviations from the original plan set. The OSR shall also have a current copy of the original plan set. The Design-Builder shall prepare meeting minutes for all progress meetings with the OSR, subcontractors, the Program Manager, and GWA.

8. Other Meetings: Arrange meetings between the Design-Builder and GWA, and other stakeholders as necessary.

9. Project Coordination: The OSR shall coordinate and communicate with GWA, the Program Manager, and the Design-Builder. The OSR shall notify GWA of any deficiencies with the work of the Design-Builder.

10. PM/CM Software Coordination: The OSR shall procure the Project Management / Construction Management software selected by the Design-Builder. The OSR will coordinate with the Program Manager, GWA, and the Design-Builder to help ensure that all parties have the needed PM/CM software to effectively transmit and review project documents.

11. Requests for Information: Track all Requests for Information (RFIs) and maintain an RFI log. Coordinate receipt of answers from all sources. Assist GWA with the development of a response to RFIs regarding any aspect of the contract documents.

12. General Compliance Monitoring: The OSR shall evaluate Design-Builder compliance with all local and federal labor laws applicable to the project. Any violations shall be immediately reported to GWA. Compliance monitoring shall include but not be limited to the following:

Exhibit C (11 of 25)

- a. Regulations and laws: Monitor compliance with Territorial and/or Federal laws, regulations and rules.
 - b. Labor Laws: Monitor Contractor and subcontractor procedures to verify legal status of employees on site.
 - c. Licensure: Confirm that the Contractor and its subcontractor and their workers have all required licenses and ensure that said licenses are valid throughout the term of the Contract.
 - d. Permits: Monitor and track Design-Builder's compliance in obtaining required permits and approvals.
 - e. Review Design-Builder's insurance documents submitted to GWA for compliance with Contract requirements. Track insurance documents, ensure insurance is valid throughout the term of Contract and maintain insurance certificate log.
13. Claims and Disputes: The OSR shall promptly notify GWA regarding any issues that arise during construction of the project that could result in claims and/or disputes. The OSR shall provide the following services to assist GWA with the resolution of claims and disputes:
- a. Records: Maintain copies of all verbal and written communications, submittals, testimony, photos, and meetings regarding a potential dispute and promptly submit all originals to the GWA Chief Engineer and, if requested, the Attorney for GWA.
 - b. Claims: Review claims submitted by the Design-Builder and provide written recommendations to GWA regarding the solution of the dispute.
14. Stop Work Orders: The OSR, upon notice of serious or urgent Contract non-compliance issues relating to a portion of, or the entire project, shall issue specific stop work orders to the Design-Builder as follows:
- a. If the work or actions of the Design-Builder or subcontractor are an imminent threat to the public or personnel on the project, the stop work order may be issued orally at that time, with written confirmation to follow.
 - b. With prior notification and approval of the GWA Chief Engineer or Project Manager in all other cases.
 - c. Recommendations to issue Stop Work Orders shall be submitted to GWA upon the discovery by the OSR of such need.
15. Schedule Monitoring: The OSR shall review the Design-Builder's construction schedule. The OSR shall bring schedule variances to the attention of the Design-Builder and GWA. The OSR may recommend corrective action to GWA throughout the project in the event that construction progress falls behind schedule. An updated project schedule should be submitted with each of the Design-Builder's pay applications. If

Exhibit C (12 of 25)

necessary, a recovery schedule should also be submitted illustrating how the Design-Builder plans to bring a late project back within schedule.

16. Quality Control: The OSR shall monitor ongoing and completed construction work for compliance with the plans and specifications. The OSR shall advise GWA if, based on their observation, the work is not in compliance with the plans and specifications. Additionally, the OSR shall:

- a. Promptly advise the Program Manager or the GWA Chief Engineer if the Design-Builder fails to correct or remove the defective work.
- b. Assist with the preparation of punch lists and final inspection checklists, and verify that work is completed before final acceptance by GWA.

B. INTERPRETATIONS AND CLARIFICATIONS

1. Interpretation: The OSR shall provide GWA with interpretation of contract drawings, specifications, and recommendations as necessary. Provide requested interpretations of the plan and specifications in a timely manner to GWA for review and concurrence prior to submitting to the Design-Builder. The interpretations may be formally communicated as RFIs.

C. SUBMITTALS

1. The OSR shall receive samples furnished at the Site by the Design-Builder, and notify GWA of availability of samples for examination.
2. The OSR shall record date of receipt of submittals and samples approved by the Design-Builder.
3. The OSR shall advise GWA and the Design-Builder of the commencement of any portion of the construction work requiring a submittal or sample, for which the OSR believes that the submittal has not been accepted by GWA.
4. The OSR shall maintain a Submittal Log and shall keep track of submittals, status, and disposition.

D. INSPECTIONS AND TESTS

1. Resident Inspection, Construction Inspection, and Quality Control Monitoring: The OSR shall provide full-time observation and inspection services of construction. OSR work shall be performed in a way as to not impede the Design-Builder's progress nor allow for an unreasonable amount of work to be performed without inspection. In the event that any of the inspectors are not satisfactory to GWA, the OSR shall replace the person with one that is acceptable to GWA.

- a. Resident Inspector: The OSR shall provide at least one full-time competent on-site inspector to observe all phases of the construction. The Resident Inspector shall have demonstrable experience satisfactory to GWA relative to the type of work being performed.

Exhibit C (13 of 25)

- b. Special Inspections: In addition to general compliance inspections, the OSR shall provide full-time inspection services by a person with demonstrable experience and certification satisfactory to GWA related to concrete placement, concrete anchoring, pre-stressing operations, grading, excavation, backfilling, and all other operations that require special inspections.
2. Duties of the Resident Inspector will include, but are not limited to:
- a. Prior to construction, review the plans and specifications and bring to GWA's attention any issues before they arise in the field.
 - b. Prepare a Daily Construction Log (daily report, diary, or log book) which will include the following data:
 - i. Design-Builder's hours at the site
 - ii. Construction subcontractors present at the site
 - iii. Record of construction personnel and equipment
 - iv. Weather conditions
 - v. Photographs of construction
 - vi. Site visitors
 - vii. Daily progress referenced by station locations or coordinate locations
 - viii. Review of testing results
 - ix. Review of the construction schedule versus construction progress
 - x. Any site accidents
 - xi. Force majeure or delay events
 - xii. Emergencies
 - xiii. Damage to property by fire or other causes
 - xiv. Discoveries of any constituents of concern or hazardous environmental conditions
 - xv. Deliveries of equipment and materials
 - xvi. Problems or complaints
 - c. Maintain daily contact with the Design-Builder's designated representative.
 - d. Record contact information of all construction subcontractors and major suppliers of materials and equipment (e.g., names, addresses, telephone numbers, fax numbers, email addresses, website locations)
 - e. Construction integrity review for compliance with the construction documents:
 - i. Check materials against approved submittals
 - ii. Proper support of and bedding for Pipe
 - iii. Proper foundation subgrades
 - iv. Pipe depth and location referenced by stationing or coordinates
 - v. Backfill and compaction
 - vi. Concrete samples
 - vii. Verification of appropriate testing
 - viii. Check for defective materials
 - ix. Verification of installation techniques
 - x. Construction of pipe restraints and thrust blocking as required by the construction documents
 - xi. Pressure testing

Exhibit C (14 of 25)

- xii. Check site clean-up; condition or removal of temporary erosion control structures (silt fencing, etc.) and repairs to roads, drive-ways, yards, drainage culverts, water piping, etc.
 - f. Record data for Record drawings:
 - i. Record and sketch, including station information as applicable, the location of all underground utilities
 - ii. GPS surveyed locations of the underground utilities, and locations of valves and fittings. Notes to include the size of the fitting or valve and its orientation
 - iii. Record and sketch all changes or variations to the construction plans
 - iv. Photograph and sketch details of fittings, connections and valves
 - v. Note any changes to the plans. Track all change orders and record on the construction plans
 - vi. Mark as-built data on a master set of plans for final drafting
 - g. Pay Request Review:
 - i. Make field measurements to verify all pay items
 - ii. Check and verify Contractor's pay requests
 - iii. Coordinate with Contractor to determine earned value for lump sum bid items
3. Observation of Testing, System Start-Ups, and Training: The OSR shall:
- a. Observe tests, equipment and systems start-ups, and operation & maintenance training.
 - b. Review Design-Builder's recordkeeping regarding tests, equipment, and system start-ups, and operation & maintenance training.
 - c. Coordinate and monitor testing required to be performed by GWA.
 - d. Maintain a log of all testing performed.

E. CHANGE MANAGEMENT

- 1. Change Order Review: Track all Change Orders (originals to be provided to GWA) and maintain a Change Order Log. Based on Design-Builder Proposed Change Orders, provide evaluations, independent cost estimates, and recommendations to GWA.
- 2. Change Order Documents: The OSR shall maintain copies of all approved change orders (originals to be provided to GWA) and ensure that subsequent pay requests accurately represent these change orders.

F. CONSTRUCTION SURVEY SERVICES

- 1. Construction Survey Services: The OSR shall review Design-Builder's survey and field measurements as necessary to verify that the work is installed in accordance with the plans and specifications. Changes to the horizontal and vertical alignments and elevations work shall be made only with the approval of the GWA Chief Engineer.
 - a. Pipeline Alignments and Location of Structures: Spot check Design-Builder's construction staking to verify the pipeline alignments and structure locations

Exhibit C (15 of 25)

are as called for on the plan and specifications and in order to ensure that the work is located within lawful and approved property, Rights-of-Way and easements.

- b. Elevations: Spot check the Design-Builder's elevations for foundations, pads, pipeline inverts, backfill thickness, manholes, and other structures for which vertical elevation is a critical design element.

G. DISPUTES BETWEEN OSR, GWA, AND DESIGN-BUILDER

1. The OSR shall make recommendations to GWA on all claims related to the technical requirements of the Contract Documents. The OSR is not responsible for resolving disputes between GWA and the Design-Builder.

H. PROJECT RECORDS AND DESIGN-BUILDER COMPLETION DOCUMENTS

1. Project Records: The OSR shall maintain a fully searchable electronic project record and a clearly labeled / tabbed set of 3-ring binders and electronic copies. The project records shall include all project correspondences, photos, daily logs, weekly reports, and other items required to document the construction process.

2. Punch List Development: Throughout the construction of the project, the OSR shall prepare and maintain a list of defects and deficiencies in the work, which will be communicated with GWA and the Design-Builder. The deficiency list shall be discussed at each project meeting. The unresolved deficiency list shall be provided to all members of the pre-final and final inspection team. The list shall be revised after inspections to reflect additional items identified during the inspection. The OSR is to monitor punch list completion, but is not responsible for the Design-Builder's correction of deficiencies.

3. Inspections: The OSR shall participate in GWA's site visits and inspections.

- a. Preliminary Inspections: Preliminary inspections shall be arranged as necessary for specific work elements that require the certification and approval of other agencies. The OSR will advise GWA if a preliminary inspection appears necessary.

- b. Pre-Final Inspection: A pre-final inspection shall be conducted after the Design-Builder notifies GWA in writing that the Design-Builder believes the work is substantially complete. The OSR shall assist in the preparation of a punch list of items to be completed or corrected, and in preparation of the Certificate of Substantial Completion.

- c. Final Inspection: The final inspection shall be conducted after correction of punch list items. The OSR shall observe whether items on the final punch list have been completed or corrected, and make recommendations to GWA concerning acceptance and issuance of the notice of acceptability of the Work. The OSR shall assist GWA with preparing the notice of acceptability of the Work.

Exhibit C (16 of 25)

4. Final Report: The OSR shall prepare a final report after written final acceptance of the work by GWA. The final report shall include a narrative documentation of all significant construction events and issues, and shall become a historical record for the project. The project record described above shall become a part of and be submitted along with the final report. The final report and other post-construction activities specified herein shall be completed within thirty (30) calendar days of Final Completion, as accepted by GWA in writing.

5. Record Documents: The OSR shall communicate with the Design-Builder regarding development of official record documents. Record drawings shall be generated by the Design-Builder. Record drawings shall be marked "RECORD DRAWINGS," and be dated and sealed by Design-Builder's professional engineer licensed on Guam.

I. COMMISSIONING AND STARTUP

1. The OSR is to coordinate with the Design-Builder, Program Manager, and GWA to assist with successful startup and testing. In particular, the OSR will ensure that GWA Operations is involved with the process. Coordination between the OSR, Design-Builder, Program Manager, GWA Operations, and other stakeholders as required, should take place prior to initiation of startup and testing. Startup and testing is to be performed in accordance with the technical specifications.

J. TRAINING

1. The OSR shall coordinate with the Design-Builder, GWA, and the Program Manager to schedule startup training required by the construction contract.

K. WARRANTIES

1. The Design-Builder shall maintain a copy of warranties and compile associated Manufacturer and Design-Builder warranty documents. Warranty information shall be included in the final report. All original warranty documents shall be provided to the OSR and GWA.

L. SPARE PARTS

1. The OSR shall maintain a list of all spare parts to be delivered to GWA if applicable under the contract, and confirm that the spare parts have been formally transferred from the Design-Builder to GWA prior to project closure. Transfer documentation shall be included in the Final Report.

This Request for Proposal was approved by Miguel Bordallo, P.E. GWA General Manager and Thomas F. Cruz, P.E., Chief Engineer.



Exhibit C (18 of 25)

Guam Waterworks Authority
Owner's Site Representative (Construction
Management) Services for the Design and Construction
of the Umatac-Merizo Wastewater Treatment Plant
Upgrade
2017_085.000

Page B-1

July 5, 2017

EXHIBIT "B"

SCHEDULE OF CURRENT BILLING RATES

The hourly billing rates shown below include Guam Gross Receipt Tax.

<u>PERSONNEL CATEGORY</u>	<u>HOURLY BILLING RATE</u>
Principal	\$215.00
Project Manager	\$215.00
Resident Engineer	\$178.00
Clerk	\$59.00

See attached "Exhibit B-2" for estimated Not-To-Exceed amount.

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OWNER'S SITE REPRESENTATIVE (CM) SERVICES
 FOR DESIGN AND CONSTRUCTION OF UMATAC-MERIZO WWTP UPGRADE
 PROJECT NO.: S17-002-BND

EXHIBIT B-2

Exhibit C (19 of 25)

T&M BILLING RATE SUMMARY

CATEGORIES	RATE	UNIT	NTE QTY	NTE AMOUNT
Principal	\$215.00	Hour	381	\$81,915.00
Project Manager	\$215.00	Hour	1,066	\$229,190.00
Resident Engineer/Inspector	\$178.00	Hour	3,519	\$626,382.00
Secretaty/Clerk	\$59.00	Hour	3,519	\$207,621.00
Subtotal				\$1,145,108.00

Special Inspections				
Soils Engineer, PE	\$216.00	Hour	54	\$11,664.00
Soils Inspector	\$120.00	Hour	108	\$12,960.00
Concrete Special Inspector, PE	\$215.00	Hour	156	\$33,540.00
Concrete Inspector	\$99.00	Hour	288	\$28,512.00
Subtotal				\$86,676.00

QA Testing				
Soils Test: ASTM C-136, D-2419 & D-1557	\$401.00	Set	3	\$1,203.00
Compaction Test: ASTM D-1556 or D-2922	\$158.00	Set	30	\$4,740.00
Concrete Test: ASTM C-39 & C-138	\$175.00	Set	6	\$1,050.00
Asphalt Test: ASTM D-1559, D-2041, D-2172, D-2726	\$653.00	Set	3	\$1,959.00
Asphalt Test: ASTM D-2950	\$99.00	Each	6	\$594.00
Testing Technician	\$54.00	Hour	192	\$10,368.00
Subtotal				\$19,914.00

QA Survey				
2-Man Crew	\$1,078.00	Half Day	20	\$21,560.00
3-Man Crew	\$1,198.00	Half Day	4	\$4,792.00
Subtotal				\$26,352.00

Total Not-To-Exceed (NTE) Amount				\$1,278,050.00
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Exhibit C (20 of 25)

OWNER'S SITE REPRESENTATIVE (CM) SERVICES
FOR DESIGN AND CONSTRUCTION OF UMATAC-MERIZO WWTP UPGRADE
PROJECT NO.: S17-002-BND

Task Number	Task Description	Principal	Project Manager	Resident Engineer	Project Inspector	Secretary/Clerk	CADD Operator	Subconsultants	Amount
	HOURLY LABOR RATES	\$215.00	\$215.00	\$178.00		\$59.00			
A	DESIGN DOCUMENTS REVIEW								
1	Document Review								
2	Pre-bid Conference								
3	Bid Review and Comments								
4	Attend Pre-con meeting								
	SUBTOTAL								
B	CONSTRUCTION PHASE								
1	Project Controls								
1.1	Project correspondence								
1.2	Submittal review								
1.3	Payment requests								
1.4	Attend weekly progress meetings								
1.5	Request for information								
1.6	Claims and disputes								
1.7	Project records								
2	Construction Inspection								
2.1	Onsite inspection								
2.2	Acceptance of work								
2.3	Stop work orders								
2.4	Change orders								
2.5	Design changes								
2.6	DCVR								
3	Project Closeout								
3.1	Schedule monitoring								
3.2	Punchlist development								
3.3	Inspections								
3.4	Training and warranty								
	SUBTOTAL								
C	POST CONSTRUCTION								
1	Final report								
2	Project records								
3	Record drawings								
	SUBTOTAL								
	All of the above tasks	381	1,066	3,519		3,519			1,145,108
	SUBTOTAL								1,145,108
D	Special Inspection Estimated Fee								86,676
E	QA Testing Estimated Fee								19,914
F	Survey Estimated Fee								26,352
	SUBTOTAL								132,942
	TOTAL NOT-TO-EXCEED AMOUNT								1,278,050

Exclusions:

1. Design review
2. Submittal approval and RFI responses.
3. OSR (CM) field office (to be provided by Owner).

ONWER'S SITE REPRESENTATIVE (CM) SERVICES
 FOR DESIGN AND CONSTRUCTION OF UMATAC-MERIZO WWTP UPGRADE
 PROJECT NO.: S17-002-BND

Exhibit C (21 of 25)

RATE DEVELOPMENT

CATEGORIES	Direct Rate	188% OH	10% Profit	4.167% GRT	ROUNDED
Principal	\$65.00	\$187.20	\$205.92	\$214.50	\$215.00
Project Manager	\$65.00	\$187.20	\$205.92	\$214.50	\$215.00
Resident Engineer/Inspector	\$54.00	\$155.52	\$171.07	\$178.20	\$178.00
Project Inspector					
Secretaty/Clerk	\$18.00	\$51.84	\$57.02	\$59.40	\$59.00

ONWER'S SITE REPRESENTATIVE (CM) SERVICES
 FOR DESIGN AND CONSTRUCTION OF UMATAC-MERIZO WWTP UPGRADE
 PROJECT NO.: S17-002-BND
Exhibit C (22 of 25)

DURATIONS

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr		
Initial Design Phase																								
Submittal Phase																								
Construction Phase																								
Close-out Phase																								
Principal	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	2.2	
Project Manager	0.15	0.15	0.15	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	6.2
Resident Engineer/Inspector	0.3	0.5	0.5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20.3
Project Inspector																								0.0
Clerk	0.3	0.5	0.5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20.3
Total																								

OWNER'S SITE REPRESENTATIVE (CM) SERVICES
 FOR DESIGN AND CONSTRUCTION OF UMATAC-MERIZO WWTP UPGRADE
 PROJECT NO.: S17-002-BND

Task Number	Task Description	PSE&T Soils Engineer	PSE&T Soils Inspector	SSFIM Concrete, PE	SSFIM Concrete Inspector				Amount
	HOURLY LABOR RATES	\$ 216.00	\$ 120.00	\$215.00	\$99.00				
D	SPECIAL INSPECTIONS								
1	Soils								
1.1	Shallow foundations	6	12						2,736
1.2	Excavations	6	12						2,736
1.3	Classification & testing of fill matls	6	12						2,736
1.4	Backfilling & compaction	30	60						13,680
1.5	Observe subgrade	6	12						2,736
	SUBTOTAL	54	108						24,624
2	Concrete								
2.1	Inspection of reinforcements			48	96				19,824
2.2	Inspection of welding								
2.3	Inspection of bolts								
2.4	Inspection of anchors								
2.5	Verification use of design mix			12					2,580
2.6	Testing & sampling of fresh concrete								
2.7	Placement of concrete			48	96				19,824
2.8	Inspection of curing			48	96				19,824
	Expenses								
	SUBTOTAL			156	288				62,052
	TOTAL SPECIAL INSPECTIONS								86,676

PSE&T Soils Engineer & Inspector rate above includes SSFM 15% OH mark-up and 4.16% GRT.

ONWER'S SITE REPRESENTATIVE (CM) SERVICES **Exhibit C (24 of 25)**
 FOR DESIGN AND CONSTRUCTION OF UMATAC-MERIZO WWTP UPGRADE
 PROJECT NO.: S17-002-BND

Task Number	Task Description	ASTM C-136, D-2419 & D-1557	ASTM D-1556 or D-2922	ASTM C-39 & C-138	ASTM D-1559, D-2041, D-2172, D-2726	ASTM D-2950	Technician	Amount
	UNIT RATES	\$401.00	\$158.00	\$175.00	\$653.00	\$99.00	\$54.00	
E	QA TESTING *							
1	Soils							
1.1	Fill Materials	3						1,203
1.2	Backfill Compaction Tests		30					4,740
1.3	Testing Technician Onsite Time						132	7,128
2	Concrete							
2.1	Concrete Compressive Strength			6				1,050
2.2	Testing Technician Onsite Time						24	1,296
3	Asphalt Paving							
3.1	AC Mix Tests				3			1,959
3.2	AC Field Compaction Tests					6		594
3.3	Testing Technician Onsite Time						36	1,944
	Expenses							
	SUBTOTAL	3	30	6	3	6	192	19,914

OWNER'S SITE REPRESENTATIVE (CM) SERVICES
 FOR DESIGN AND CONSTRUCTION OF UMATAC-MERIZO WWTP UPGRADE
 PROJECT NO.: S17-002-BND

Task Number	Task Description	2-Man Crew	3-Man Crew						Amount
	UNIT RATES	\$1,078	\$1,198						
F	CONSTRUCTION SURVEY SERVICES *								
1	2-Man Crew for regular checking	20							21,560
2	3-Man Crew		4						4,792
	Expenses								
	SUBTOTAL	20	4						26,352