



GWA RESOLUTION NO. 16-FY2023

**RELATIVE TO APPROVAL OF THE PRESSURE ZONE REALIGNMENT PHASE 2
CONSTRUCTION MANAGEMENT CONTRACT**

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, the Water Resource Master Plan Update 2018 (WRMP) developed and included the island wide pressure zone realignment plan (Appendix G of WRMP); and

WHEREAS, the construction of Pressure Zone Realignment Phase 1 is nearing completion and Pressure Zone Realignment Phase 2 construction project Invitation for Bid (IFB) documents are in process of preparation for bid; and

WHEREAS, GWA has advertised the Request for Proposals (RFP-05-ENG-2022) soliciting statement of qualifications from experienced and qualified engineering firms to provide construction management services for the Pressure Zone Realignment Phase 2 construction project; and

WHEREAS, 16 interested parties registered for the RFP package, from which GWA received proposal submittals from 6 firms before the RFP submittal deadline; and

WHEREAS, the GWA Architect-Engineer Selection committee reviewed and evaluated the 6 proposals (See Exhibit A – Evaluation Score Summary) and generated a short list of the top

1 3 firms with a recommendation to award a contract to the firm AMOrient Engineering (See
2 Exhibit B – GM’s Determination); and

3
4 **WHEREAS**, AMOrient Engineering and GWA negotiated the price for the construction
5 management services for the Pressure Zone Realignment Phase 2 to be provided in the total
6 amount of One Million Six Hundred Eighty-Eight Thousand Nine Hundred Twenty-Five Dollars
7 (\$1,688,925.00) (See Exhibit C – Scope of Work and Fees); and

8
9 **WHEREAS**, GWA management seeks approval of the fee proposal amount of One
10 Million Six Hundred Eighty-Eight Thousand Nine Hundred Twenty-Five Dollars
11 (\$1,688,925.00), along with a ten percent (10%) contingency of One Hundred Sixty-Eight
12 Thousand Eight Hundred Ninety-Two Dollars (\$168,892.00), to bring the total authorized
13 funding amount to a maximum of One Million Eight Hundred Fifty-Seven Thousand Eight
14 Hundred Seventeen Dollars (\$1,857,817.00); and

15
16 **WHEREAS**, funding for this project will be from the USEPA Grant No. M98T48323
17 and subsequent USEPA Grant No. updates; and

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


- 21
- 22 1. The recitals set forth above hereby constitute the findings of the CCU.
 - 23 2. The CCU finds that the terms of the fee proposal submitted by AMOrient
24 Engineering are fair and reasonable.
 - 25 3. The CCU hereby authorizes the management to accept the fee proposal from
26 AMOrient Engineering, which is also incorporated into this Resolution in its
27 entirety (Exhibit C).
 - 28 4. The CCU hereby further authorizes the management of GWA to enter into a
29 contract with AMOrient Engineering, in the amount of One Million Six
30 Hundred Eighty-Eight Thousand Nine Hundred Twenty-Five Dollars
31 (\$1,688,925.00).
- 32


1 5. The CCU hereby further approves the total funding amount for this project of
2 One Million Six Hundred Eighty-Eight Thousand Nine Hundred Twenty-Five
3 Dollars (\$1,688,925.00), along with a ten percent (10%) contingency of One
4 Hundred Sixty-Eight Thousand Eight Hundred Ninety-Two Dollars
5 (\$168,892.00), to bring the total authorized funding amount to a maximum of
6 One Million Eight Hundred Fifty-Seven Thousand Eight Hundred Seventeen
7 Dollars (\$1,857,817.00).

8 6. Funding source shall be the following:
9 • USEPA Grant No. M98T48323 and subsequent USEPA Grant No.
10 updates.

11
12 **RESOLVED**, that the Chairman certified and the Board Secretary attests to the adoption
13 of this Resolution.

14
15 **DULY AND REGULARLY ADOPTED**, this 3rd day of April 2023.

16
17 Certified by:
18 
19 _____
20 **JOSEPH T. DUENAS**
21 Chairperson

17 Attested by:
18 
19 _____
20 **PEDRO ROY MARTINEZ**
21 Secretary

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SECRETARY'S CERTIFICATE

I, Pedro Roy Martinez, Board Secretary of the Consolidated Commission on Utilities as evidenced by my signature above do hereby certify as follows:

The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular meeting by the members of the Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

AYES: 5
NAYS: Ø
ABSENT: Ø
ABSTAIN: Ø



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GUAM WATERWORKS AUTHORITY

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

July 27, 2022

To: Barbara C. Cruz, P.E.
Acting Chief Engineer

From: Josephine E. Smith, PMBA 
Chairperson, Consultant Selection Board

Subject: RFP-05-ENG-2022
Construction Management Services for Pressure Zone Realignment Construction
Phase II
GWA Project No. W18-001-BND

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

EVALUATION COMMITTEE MEMBERS	
Name	Title
Garrett K.A. Yeoh	Senior Engineer
Cheuk Nam Yam	Senior Engineer
Jessey A. Mendiola	Junior Engineer
Vince EC Pangelinan	Operations and Maintenance Manager

Offerors	Evaluation Score				Total	Rank
1. Amorient Engineering	79	90	85	79	333	1
2. Duenas, Camacho & Associates, Inc.	76	88	83	79	326	2
3. AECOM Technical Services, Inc.	71	85	80	68	304	3
4. TG Engineers, PC	67	78	78	76	299	4
5. EMPSCO Engineering Consultants	57	86	75	80	298	5
6. E.M. Chen & Associates, Inc.	59	82	75	75	291	6

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

For your review and approval. Notification letters will be issued thereafter.

Approved by:



Barbara C. Cruz, P.E.



GUAM WATERWORKS AUTHORITY

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

MEMORANDUM

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

From: Barbara C. Cruz, P.E. *BC*
Acting Chief Engineer

Subject: RFP-05-ENG-2022
Construction Management Services for Pressure Zone Realignment Construction
Phase II
GWA Project No. W18-001-BND

Date: July 28, 2022

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

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

1. Amorient Engineering
2. Duenas, Camacho & Associates, Inc.
3. AECOM Technical Services, Inc.

Concurred:

Vincent Guerrero

 Vincent E. Guerrero
 Supply Management Administrator

7/28/2022

 Date

GENERAL MANAGER'S DETERMINATION

Consultant Firm Selected:

Amorient Engineering

Remarks:

Miguel C. Bordallo

 Miguel C. Bordallo, P.E.
 General Manager

29.7.2022

 Date



17 November 2022

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

Attn: Mr. Miguel C. BORDALLO, P.E.
**Subject: Fee Proposal for Construction Management Services for the Pressure Zone
Realignment Construction Phase II; GWA Project No. W18-001-BND [JR0656]**

Dear Mr. BORDALLO,

We are pleased to submit our fee proposal to provide Construction Management services of the Pressure Zone Realignment Construction Phase II. Our proposal is based on the GWA RFP-05-ENG-2022 dated April 26, 2022.

A. SCOPE

The scope of work is to be performed consist of Construction Management (CM) and Inspection Services on behalf of GWA for the development of the Pressure Zone Realignment Construction Phase II Project. The Construction Manager (CM) will manage the entire construction process to ensure project is completed.

B. GENERAL CONSTRUCTION MANAGEMENT SCOPE OF WORK

The CM will provide all services relating to the daily field observation, inspection, testing, supervision, management, coordination, and compliance monitoring for the construction projects and rehabilitation work. The project generally consists of piping removal and replacement including system control valves, valve vaults, flow metering between service zones, mechanical and electrical improvements, new instrumentation control, SCADA, and all other required system upgrades necessary for the system to function properly.

C. PRE-CONSTRUCTION PHASE SERVICES

The Pre-Construction Phase Services will cover the following and include the required deliverables as per SOW.

1. Design Document Review
2. CM Quality Assurance
3. Construction Management Plan
4. Contract Bidding

D. CONSTRUCTION PHASE SERVICES

The Construction Phase Services will cover the following and include the required deliverables as per SOW.

1. Project Records and Document Control ⁽¹⁾
2. Daily Construction Reports
3. Progress Photo Log
4. Submittal & Shop Drawings
5. Contractor Project Schedules
6. Payment Request
7. Payroll Report
8. Project Meetings
9. As-Built Drawings Record
10. Request for Information
11. General Compliance Monitoring
12. Claims and Disputes
13. Change Order Negotiations and Review
14. Design Changes and Verification Request
15. Construction Monitoring, Special Inspection, and Quality Control Monitoring
16. Testing (Quality Assurance) ⁽²⁾
17. Acceptance
18. Construction Survey Services (Quality Assurance)
19. Project Closeout (Punch List and Project Closeout Inspections)
20. Train and Warranty Periods
21. Miscellaneous Items (Pressure/ Flow Logging Equipment) ⁽³⁾

(1) Procure subscription was estimated at \$18,000 per year. This figure may vary depending on the contract value and the duration of the works. Actual cost will be invoiced plus 15%.

(2) A provisional sum of \$65,000 was included in our lump sum. Actuals plus 15% will be invoiced monthly.

(3) A provisional sum of \$50,000 was included in our lump sum for the purchase of GWA equipment to be used during the project. Actual plus 15% will be invoiced.

E. POST CONSTRUCTION PHASE SERVICES

1. Final Report
2. Record Drawings

F. INFORMATION AND ACCESS REQUIRED

It is our understanding that any available documents related to the project will be provided to Amorient as supplements to the design but not limited to:

1. CAD & PDF version of the approved Construction Drawings & Specifications.
2. Contractor Project Cost Estimates and Construction Schedule.
3. Access to all 17 sites will be provided to Amorient and shall be coordinated to the designated project POC from GWA.

G. CONSTRUCTION MANAGEMENT FEES

Our lump sum fee for the services described above is **\$1,688,925 (one million six hundred eighty-eight thousand nine hundred twenty-five dollars)**. GRT is included and will be applied to each invoice.

Thank you for considering us for the Construction Management of this project.

Please do not hesitate if you have any questions/ clarifications on our fee proposal.

Sincerely,


Hernan BONSEMBIANTE
President

JR0656 CONSTRUCTION MANAGEMENT SERVICES FOR PRESSURE ZONE REALIGNMENT CONSTRUCTION PHASE II

PRICE PROPOSAL

Disciplines	PRINCIPAL	RESIDENT ENGINEER	SUPPORT ENGINEERS (PE)	ENGINEERING TECHNICIAN	ADMIN	QA TESTING/SURVEYING	PROCORE SUBSCRIPTION	GWA EQUIPMENT	COMPANY VEHICLE	TOTAL	NOTES	
Hourly Rate or Lump Sum	\$210	\$175	\$180	\$135	\$95	\$65,000	\$18,000	\$50,000	\$0			
Phase I: Pre-Construction Phase Services												
1	Project Kick-off Meeting	4	4	4	4	8				\$3,560		
2	Design Document Review & Report	2	16	36	8	16				\$12,300	Identify any deficiencies in the construction documents	
3	CM Quality Assurance	2	16	4	2	36				\$7,630	Develop a Quality Assurance Plan	
4	Construction Management Plan	2	24	4	2	36				\$9,030		
5	Contract Bidding	2	40	8		16				\$10,380	Technical Memorandum	
Phase II: Construction Phase Services												
6	Project Records and Document Control					8	2			\$36,760	Procure Project Management	
7	Daily Construction Reports		940		100					\$178,000		
8	Progress Photo Log										Included	
9	Submittal and Shop Drawings Review and Approval			20						\$3,600		
10	Contractor Project Schedules			52		52				\$14,300		
11	Payment Request	4		24		72				\$12,000		
12	Payroll Report	4		24		72				\$12,000		
13	Weekly Project Meetings			52						\$9,360		
14	As-Built Drawing Record				208					\$28,080		
15	Request for Information tracking and coordination				104	20				\$15,940		
16	General Compliance Monitoring	4								\$840		
17	Design Changes and Verification Request	4		80	160					\$36,840		
18	Construction Monitoring, Special Inspection, and Quality Control Monitoring		3120	208	3260					\$1,023,540		
19	Testing (Quality Assurance)						0.5			\$32,500		
20	Claims and Disputes	8		40						\$8,880		
21	Change Order Negotiations and Review	8		12		16				\$5,360		
22	Acceptance	4			136	16				\$20,720		
23	Construction Survey Services (Quality Assurance)						0.5			\$32,500		
24	Project Closeout	4								\$840		
25	Training and Warranty Periods	2								\$420		
Post Construction Services												
26	Final Report	4		40	40	80				\$21,040		
27	Record Drawings	4		16	136					\$22,080		
Miscellaneous Items												
28	Logistics & Travel								0	\$0		
29	Pressure/Flow Logging Eqpt							1		\$50,000		
Subtotals		62	4160	624	4160	448	1	2	1	0	\$1,608,500	
Total										\$1,688,925	Total includes GRT	

III. SCOPE OF WORK

Construction Management Services for Pressure Zone Realignment Construction Phase II GWA Project No. W18-001-BND

A. CONSTRUCTION DESCRIPTION:

The scope of work to be performed consist of Construction Management (CM) and Inspection Services on behalf of GWA for the development of the Pressure Zone Realignment Construction Phase II Project. The Construction Manager (CM) will manage the entire construction process to ensure project is completed. The CM services will be conducted in two phases: Phase I, for pre-construction activities before the issuance of the DPW building permit and Phase II, for construction, after the issuance of the DPW building permit.

The following is a general description of water system improvements to be completed:

- Pressure Zone Realignment Phase II
 - Construction or rehabilitation of multiple PRV/PRSV vaults, piping, valves, fittings, and other necessary appurtenances to connect to GWA's existing water system
 - Demolition or abandonment of existing facilities, including yard piping, vaults, and appurtenances
 - Installation and commissioning of electrical systems and SCADA

B. GENERAL CONSTRUCTION MANAGEMENT SCOPE OF WORK

The CM will provide all services relating to the daily field observation, inspection, testing, supervision, management, coordination, and compliance monitoring for the construction projects and rehabilitation work. The project generally consists of piping removal and replacement including system control valves, valve vaults, flow metering between service zones, mechanical and electrical improvements, new instrumentation control, SCADA, and all other required system upgrades necessary for the system to function properly.

The construction management team and/or sub-consultants shall have extensive knowledge and experience with the following:

- Civil work
- Mechanical pipe work, to include piping and valves and all relevant water utility work
- Instrumentation, including flow meters, pressure sensors, alarms
- Electrical systems
- SCADA
- System commissioning

The construction management, testing, and field observation services for well rehabilitation projects will require general construction management and observation, as well as specialized inspection and testing.

In general, the proposer will be the CM as an independent contractor Owner's Representative of GWA whose primary functions are to:

- Keep GWA advised and informed as to project progress and cost
- Manage 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 CM shall administer the Contract, except that the CM is not authorized to make any decisions on the behalf of GWA that materially affect the intent of the design or financially obligate GWA in any manner.

C. PRE-CONSTRUCTION PHASE SERVICES

- **From the time of issuance of the Notice to Proceed (NTP) for Phase I (for pre-construction activities prior to the issuance of DPW building permit), ALL DUTIES listed in this section shall be part of the CM's daily duties within typical working hours.**

1. Design Document Review

The CM shall perform review of the design documents. The CM will provide redline mark-up of the plans and specifications and annotated comments. The review will also verify that the design is clearly presents and poses no potential construction related conflicts or deficiencies which may lead to substantive changes to the design, schedule, or cost of the project. Review will identify any contractual and technical deficiencies and contradictions in the construction documents.

Deliverables (electronic pdf files and hard copies):

- Final Design Review Report

1. CM Quality Assurance

The Construction Management consultant and/or sub-consultants shall have experience in managing the construction of water lines, and all relevant water utility work.

The CM will review, record, and comment on submittal on Quality Control Plan submitted by the Construction Contractor. The CM will develop, implement, and maintain a Quality Assurance Plan for civil, structural, electrical, mechanical, and instrumentation elements.

The CM will file contractor certifications: review, file, and submit inspection test results; and assess substantial completion.

Content of the Quality Assurance Plan will include the following at the minimum:

- Documentation of site conditions prior to beginning construction
- Review of approved submittals from the Contractor prior to fabrication or installation of materials and equipment
- Inspection, observation, and documentation of daily field work
- Monitoring of the Contractor's Quality Control Plan

- QA testing schedule
- In-plant fabrication and/or witness testing at place of manufacture (where applicable)
- Reports and record keeping
- Non-conforming and deficient work resolution process
- Monitoring the Construction Contractor's implementation of their Quality Control Plan
- Complete list of any specialized inspections

It is important to note that the CM is responsible for monitoring the Contractor's compliance with the Contract Documents, but not responsible for the means and methods the Contractor may use to perform the work.

Deliverables (electronic pdf files and hardcopies):

- Quality Assurance

2. Construction Management Plan

The CM will develop and implement the Construction Management Plan (CM Plan) including guidelines for project organization and coordination in the field, standard daily operations, change order procedures, safety, quality, schedule, and cost control. The CM Plan sets forth the procedures and approach for the construction of the project. The CM Plan will serve the CM, the Owner's Representative, and Contractors by defining the project, project team members and their roles, coordination among team members, procedure, key milestones, and schedule constraints. By establishing these parameters early in the project, the CM Plan will help control resources and costs, establish communication and coordination between the CM, Constructor, and GWA.

The CM will file contractor certifications: review, file, and submit inspection test results; and assess substantial completion.

Content of the Quality Assurance Plan will include the following at the minimum:

- Documentation of site conditions prior to beginning construction
- Review of approved submittals from the Contractor prior to fabrication or installation of materials and equipment
- Inspection, observation, and documentation of daily field work
- Monitoring of the Contractor's Quality Control Plan
- In-plant fabrication and/or witness testing at place of manufacture (where applicable)
- Reports and record keeping
- Non-conforming and deficient work resolution process
- Monitoring the Construction Contractor's implementation of their Quality Control Plan
- Complete list of specialized inspections for groundwater wells.

It is important to note that the CM is responsible for monitoring the Contractor's compliance with the Contract Documents, but not responsible for the Contractor's means and methods the Contractor may use to perform the work.

Deliverables (electronic pdf files and hardcopies):

- Construction Management Plan
- Quality Assurance Plan

3. Contract Bidding

Upon receipt of the construction bid packages, the CM will review the bid packages and provide GWA with a recommendation and/or concurrence of the proposed selected Contractor. Recommendation shall include document review to ensure compliance with all bid requirements and procurement regulations, bid analysis, and contractor selection.

Deliverables (electronic pdf files and hardcopies):

- Technical Memorandum(s) – Document Review, Bid Analysis, and Contractor Selection

D. CONSTRUCTION PHASE SERVICES

- **From the time of issuance of the NTP for Phase II (for construction, after issuance of the DPW building permit), ALL DUTIES listed in this section shall be part of the CM and Inspectors daily duties within typical working hours.**

1. Project Records and Document Control

These services and tools shall be provided by the CM to ensure that the project is efficiently managed and constructed according to the terms of the Contract and the Request for Proposal. The function is concerned with proper collection and organization of construction documents, gathering data regarding project progresses, producing progress reports, and monitoring time, cost, and quality.

The CM will use a construction management and project collaboration application- Procore Construction Project Management- to track communication, design documents, construction documents, finances, and reporting.

- Communication documents: Memos, daily inspector logs for both contractor and CM, meeting minutes, and all other relevant documentation
- Construction documents: Submittals, RFIs, testing results, photo logs, special inspection, change orders, corrective actions, punch list, various construction logs, payment applications, wage rate reporting, and all other relevant documentation. The CM shall produce a submittal log independent of the Contractor's log.
- Design documents: Specifications, drawings, permits, bid documents, contract documents, and all other relevant documentation

2. Daily Construction Reports

The onsite inspectors shall maintain a log of material deliveries, daily site production, site condition, field orders, progress photos, material testing, special inspections, documentation of delays, non-conformance, punch lists, and other material and work facts and issues regarding the prosecution of the work. The daily reports and logs shall be available to GWA project team for review at any time via the project management software.

3. Progress Photo Log

The CM shall prepare and retain a set of digital photos capturing the different phases of the project and clearly labeled. The photo log shall capture all phases of the project – pre-construction, construction, and post-construction. The photo log shall be digital.

4. Submittal and Shop Drawings

The CM shall review and act on (approve or reject) all submittals required by the Contract documents. The CM shall review and provide comments regarding shop drawings, work drawings, material submittals, traffic control plan, safety plan, demolition plan, and all other submittals for conformance with the Contract documents. CM reviewer shall be a competent person. In the event of a Contractor request for a time extension or material or equipment substitution, the CM shall make a recommendation to GWA regarding the substitution. The GWA Chief Engineer or his authorized representative will approve the substitution.

5. Contractor Project Schedules

The CM shall review the Contractor's work schedule for accuracy and for efficient sequencing of the work. The CM will direct the Contractor to make any changes deemed necessary and coordinate approval of the revised schedule with GWA. Any delays shall be documented and notified to GWA and the Contractor when actual progress is behind schedule. The CM shall adhere to the requirements set forth in the Contract document for contractor project schedule tracking and review.

6. Payment Request

The CM shall receive and review payment requests from the Contractor. Payment requests shall be reviewed for compliance with the Contract document and with the actual work completed. Upon completion of the review, the CM shall make any necessary adjustments, certify, and forward the request to GWA for processing of the payment. The CM shall submit their review, recommendation, acceptance, or rejection within 5 working days of receipt from the Contractor.

7. Payroll Report

The CM shall also review any payroll submittals required by the Contract documents including prevailing wage submissions. At the minimum, the Contractor and its subcontractors shall provide bi-weekly pay records for each of its employees on the project. The proposer will also

conduct random employee interviews to verify the pay request information. Upon completion of the review, the CM shall require the Contractor to make any necessary adjustments, certify, and forward the payroll report along with the pay request to GWA for processing.

8. Project Meetings

The CM shall schedule, arrange, and conduct conferences and meeting as required for clear communication of the Contract requirements and adherence to project schedules.

The CM shall arrange for a weekly progress meeting with the Contractor and GWA to discuss progress of work, Contract requirements, and other issues related to the administration and prosecution of work. The CM shall prepare meeting minutes for all progress meetings with contractors, sub-contractors, GWA, and all other parties. The meeting minutes shall include action items from week to week until it has been completed. After each meeting the following day meeting minutes shall be furnished to GWA.

The CM shall arrange meetings between the Contractor and GWA, and other parties such as GEPA and DPW as necessary to address project issues that require decisions that cannot be made by the CM or to resolve regulatory concerns.

9. As-Built Drawing Record

Throughout the project, the CM shall review the Contractor's Review drawings to ensure that they are current and capture any deviations from the original plan set.

The CM shall maintain a separate set of red-line as-built drawing on site. Drawings shall be available for GWA at any time. Monthly as-builts documents shall be uploaded to the project management software system.

Deliverables (electronic pdf files and 5 hard copies):

- CM's As-Built Record Drawings

10. Request for Information

Track all Request for Information and maintain an RFI log. Coordinate receipt of answers from other sources. Provide RFI response with GWA's input regarding any aspect of the Contract documents, which includes the plans and technical specifications.

11. General Compliance Monitoring

The CM shall evaluate and ensure Contractor 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 limited to the following:

- Regulations and Laws: Monitor compliance with Territorial and/or Federal laws, regulations, and rules.

- Labor laws: Monitor Contractor and subcontractor procedures to verify legal status of employees on site. Verify bi-weekly compliance with labor requirements for federally funded projects including posting of wage rate schedules at the job site and safety requirements.
- Licensure: Confirm that the Contractor and its subcontractor and their workers have all required licenses and ensure that said licenses are valid throughout the terms of the Contract.
- Permit Compliance: Monitor and track Contractor's compliance in obtaining required permit and approvals.
- Insurance: Review Contractor's insurance documents submitted to GWA for compliance with Contractor requirements. Track insurance documents, ensure insurance is valid throughout the term of Contract and maintain insurance certificate log.

12. Claims and Disputes

The CM shall promptly notify GWA regarding any issues that arise during construction of the Project that could result in claims and/or disputes. The CM shall provide the following services to assist GWA with the resolution of claims and disputes:

- Claim 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 Chief Engineer and Attorney for GWA.
- Claims Reviews & Interpretation: Review claims submitted by the Contractor, provide GWA with interpretation of Contract drawings and specifications and provide written recommendations to GWA regarding the solution of the dispute. At the outset of the Contract, the CM shall work with the Contractor to provide pricing for equipment, material, personnel, and other relevant considerations as specified in the bid. Prices agreed upon shall be used in any subsequent Change Order. No amounts shall be paid except for actual losses incurred by the Contractor through no fault of their own or for risks not allocated to the Contractor under the bid.

13. Change Order Negotiations and Review

Prepare independent cost estimates and negotiate change orders with the Contractor subject to GWA approval (final approval of negotiated change orders can only be made by the GWA General Manager).

Track all change orders and maintain a change order log. Provide change order evaluations, negotiations, and recommendations for approval by GWA. Change orders shall not be made when the Contractor has assumed such risk in the bid. Change orders may include requests for additional payments for differing site conditions and the CM shall utilize the bid document to determine if a change order is warranted. CM shall submit change order requests and supporting documentation to GWA for approval within 5 working days of receipt from the Contractor wherever practical.

The CM shall maintain copies for all approved change orders (originals to be provided to GWA) and ensure that subsequent pay requests accurately represent these change orders. Approved change orders shall be administered by the CM along with other work elements according to the provisions of this scope of work.

14. Design Changes and Verification Request

As directed by GWA, prepare changes to the Contract technical documents (design and specifications) required to address a change order. GWA will direct the CM to make design changes only when changes are deemed by the GWA Chief Engineer and the Engineer of Record to have no material effect on the original intent of the design. All other design changes shall be forwarded to the Engineer of Record for processing.

If the request for change will materially change the original design, the CM shall coordinate with the Engineer of Record to accomplish the necessary design changes. The CM shall prepare a design change/verification request (DCVR) for submission to and for the approval of the Engineer of Record. If the required changes to the design are not covered within the original design scope of service, the CM will prepare a design scope amendment; solicit a fee proposal for the amendment on behalf of GWA, and assist with the negotiations.

15. Construction Monitoring, Special Inspection, and Quality Control Monitoring

The CM shall provide full time inspection observation and special inspection services to ensure that the work is accomplished in accordance with the Contract documents. A full time Resident Engineer shall be assigned to manage all sites and will be at one of the sites during normal working hours unless attending project related meetings or during holidays, vacation, or sick days.

The CM shall provide an appropriately sized on-site staff necessary to adequately monitor the construction. The Resident Engineer and onsite field staff shall have demonstrable experience (satisfactory to GWA) relative to the discipline and type of work being performed. Project field staff shall review project documents, conduct daily observations, special inspections (where applicable), prepare and submit Daily Observation and Special Inspection Reports; communicate deficiency issues and resolve with Contractor; and update Non-Compliance log.

In addition to general compliance inspections, the CM shall provide Special Inspections services in accordance with IBC 2009, Chapter 17 by a person with demonstrable experience (satisfactory to GWA) related to concrete placement, structural field welding, fielding welding of reinforcement, concrete anchoring, expansion bolts, high strength bolting, grading, excavation, backfilling, and other operations that require special inspections. The Special Inspections staff shall be approved by GWA before inspection.

16. Testing (Quality Assurance)

Contractor Testing: Schedule, observe, approve or reject, and document testing required under the Contract to be performed by the Contractor.

Construction Quality Assurance Testing: The CM shall provide testing to monitor the Contractor's independent testing firm. The CM shall propose a testing schedule during the CM scoping meeting.

17. Acceptance

The CM shall promptly reject, orally, or in writing, any construction work that does not fully comply with Contract documents. Within 24 hours of notification to the Contractor that work elements have been rejected, the CM shall provide a written description of the deficiency to the GWA Chief Engineer for his/her concurrence. When concurrence has been obtained, the Contractor shall be directed to correct the work. The CM shall promptly advise the GWA Project Manager or the GWA Chief Engineer if the Contractor fails to correct or remove the defective work.

The CM shall issue written stop work orders to the Contractor and immediately provide GWA with a copy for a portion of or the entire Contract non-compliance issues as follows:

- If condition of work or Contractor actions threatens the health and safety of Contractor personnel, GWA representatives, or public in such cases, stop work orders may be oral depending on the circumstances with written stop work order to follow.
- With prior notification and approval of the GWA Chief Engineer or Project Manager in all other cases.

18. Construction Survey Services (Quality Assurance)

The CM shall conduct survey and field measurements as necessary to verify that the work is located according to the plans and specifications. Changes to the horizontal and vertical alignments and elevations shall be made only with the approval of the GWA Chief Engineer.

- Pipeline Alignments and Location of Structures: Spot check Contractor's construction staking to verify the pipeline alignments and structure locations are as called for on the plan and specifications and in order to ensure that the work is located within lawful and approved Rights-of-Way and easements.
- Elevations: Spot check with Contractor's elevations for foundations, pads, pipe line inverts, backfill thickness, manholes, and other structures for which vertical elevations is a critical design element.
- Construction Survey Quality Assurance: The CM shall provide, at the minimum, the following CQA survey to monitor the Contractor's independent survey firm:

Water Line

- a. Invert of newly installed pipe
- b. Location of fittings
- c. Utility nodes, such as vertical and horizontal bends in pipes
- d. Exposed utilities
- e. New chambers, manholes, vaults, or structures

19. Project Closeout (Punch List and Project Closeout Inspections)

Throughout the construction of the project, prepare and maintain a list of defects and deficiencies in the work which must be corrected by the Contractor prior to final acceptance of work. The 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. Coordinate with the Contractor to ensure that all punch list items have been completed. When all items have been completed, inform GWA in writing recommending that the work be accepted.

Schedule, arrange, and conduct interim, pre-final, and final inspections of work with Contractor, GWA, GEPA, DPW, and other stakeholders in this project.

- Preliminary Inspection: Preliminary inspections shall be arranged as necessary for specific work elements that require the certification and approval of other agencies
- Pre-final Inspection: A pre-final inspection shall be conducted after substantial completion of the work
- Final Inspection: The final inspection shall be conducted after correction of pre-final inspection punch list items.

20. Train and Warranty Periods

The CM shall coordinate with the Contractor to schedule and conduct startup training and standard maintenance procedures required by the Contract document.

The CM shall maintain a copy of the warranties and compile associated Manufacturer and Contractor warranty documents. Warranty information shall be included in the final project report. All original warranty documents shall be provided to GWA along with Lien Release Information from the Contractor.

E. POST CONSTRUCTION SERVICES

1. Final Report

The CM shall prepare a final report after written acceptance of the work by GWA. The final report shall include a narrative documentation of all significant design and construction events and issues and shall become a historical record for the project. The Final Report shall include:

- All communication documentation
- All design documentation
- All construction documentation
- Warranty information
- Operation and maintenance information
- Asset management registry

Deliverables (electronic pdf files and 5 hard copies):

- CM Final Report

2. Record Drawings

After the conclusion of the project, the CM shall review and approve the official record drawings prepared by the Contractor. The Contractor's record drawings shall be checked with the CM's as-builts for accuracy and conformance.

Deliverables (electronic pdf files and 5 hard copies):

- As-Built Record Drawings

This Request for Proposal was approved by Miguel C. Bordallo, P.E., GWA General Manager and Maury McDonald, P.E., GWA Acting Chief Engineer.