

1 **GUAM CONSOLIDATED COMMISSION ON UTILITIES**

2 **RESOLUTION NO. 42-FY2015**

3 **RELATIVE TO APPROVAL OF THE ROUTE 2 “WAR IN THE PACIFIC”**
4 **SEWER DESIGN CONTRACT WITH SSFM INTERNATIONAL, INC.**

5
6 **WHEREAS**, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities
7 (“CCU”) has plenary authority over financial, contractual, and policy matters relative to the
8 Guam Waterworks Authority (“GWA”); and

9
10 **WHEREAS**, the Guam Waterworks Authority (“GWA”) is a Guam Public Corporation
11 established and existing under the laws of Guam; and

12
13 **WHEREAS**, GWA has received a grant from USEPA under the State Revolving Fund
14 program to improve the sewer collection system, which included approximately 2,100 linear feet
15 of gravity sewer line along Route 2 fronting the “War in the Pacific” National Historical Park,
16 also known as “Ga’an Point” in Agat; and

17
18 **WHEREAS**, the stretch of gravity sewer line indicated underwent a Sanitary Sewer
19 Evaluation Survey (SSES) which discovered that a portion of the sewer pipeline had experienced
20 a collapse, causing SSOs and surcharging upstream; and

21
22 **WHEREAS**, GWA and USEPA agree that efforts to rehabilitate, repair or replace the
23 sewer line is necessary and the first order to do so is through scope of services that includes
24 general civil engineering, geotechnical engineering, and archeological investigation for
25 wastewater collection system evaluation, analysis and design; and

26
27
28 **WHEREAS**, GWA has advertised the Request for Proposal (RFP-06-ENG-2015)
29 soliciting statement of qualification from experienced and qualified engineering firms to provide
30 construction management services for the Agat-Santa Rita WWTP Replacement Project; and

31
32 //

1 **WHEREAS**, RFP packages were downloaded by multiple interested parties, from which
2 GWA received proposal submittals from six (6) engineering firms before the RFP submittal
3 deadline; and

4
5 **WHEREAS**, GWA A-E Selection committee reviewed and evaluated the six (6)
6 proposals (see EXHIBIT A – Evaluation Score) and generated a short list of the top three (3)
7 firms with a recommendation to award a contract to the firm SSFM International, Inc. and any
8 successor at interest thereto (see EXHIBIT B – Evaluation Summary and GM Determination);
9 and

10
11 **WHEREAS**, SSFM International, Inc. and GWA negotiated the price for the design
12 services to be provided in the amount of Two Hundred Sixty Six Thousand Seven Hundred
13 Twenty Dollars and Zero Cents (\$266,720.00) with design service options related to
14 Geotechnical Field Investigation Services in the amount of Fifteen Thousand Six Hundred Sixty
15 Eight Dollars and Zero Cents (\$15,668.00) and Archeologic Data Analysis & Report in the
16 amount of Eleven Thousand Two Hundred Sixty Six Dollars and Zero Cents (\$11,266.00) should
17 these service options be needed (see EXHIBIT C – Fee Proposal); and

18
19 **WHEREAS**, the design service options noted above are viewed by GWA engineering as
20 potentially necessary based on the condition of the existing asbestos cement pipe and the
21 archeological permitting and that these options will be based on Time and Material service; and

22
23 **WHEREAS**, GWA Management seeks approval of the fee proposal amount of Two
24 Hundred Ninety Three Thousand Six Hundred Fifty Four Dollars and Zero Cents (\$293,654.00),
25 plus a ten percent (10%) contingency of Twenty Nine Thousand Three Hundred Sixty Five
26 Dollars and Forty Cents (\$29,365.40) to bring the total authorized funding amount to a maximum
27 of Three Hundred Twenty Three Thousand Nineteen Dollars and Forty Cents (\$323,019.40); and

28
29 **WHEREAS**, funding for this project will be from USEPA Grant Funds with an estimated
30 project budget of Two Million Fifty One Thousand Dollars and Zero Cents (\$2,051,000.00); and
31
32

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

- 3 1. The recitals set forth above hereby constitute the findings of the CCU.
4 2. The CCU finds that the terms of the fee proposal submitted by SSFM
5 International, Inc. are fair and reasonable.
6 3. The CCU finds that the terms of the conditions set by GWA relative to
7 commencement of work activities are fair and reasonable and serve as a
8 measure of Quality Assurance/Quality Control (QA/QC).
9 4. The CCU hereby authorizes the management of GWA to enter into a contract
10 with SSFM International, Inc., in the amount of Two Hundred Ninety Three
11 Thousand Six Hundred Fifty Four Dollars and Zero Cents (\$293,654.00) from
12 which Twenty Six Thousand Nine Hundred Thirty Four Dollars and Zero
13 Cents (\$26,934.00) will be on a Time and Materials bases.
14 5. The CCU hereby further approves the total funding amount for this project of
15 Two Hundred Ninety Three Thousand Six Hundred Fifty Four Dollars and
16 Zero Cents (\$293,654.00), plus a ten percent (10%) contingency of Twenty
17 Nine Thousand Three Hundred Sixty Five Dollars and Forty Cents
18 (\$29,365.40) to bring the total authorized funding amount to a maximum of
19 Three Hundred Twenty Three Thousand Nineteen Dollars and Forty Cents
20 (\$323,019.40).

21
22 **RESOLVED**, that the Chairman certified and the Board Secretary attests to the adoption
23 of this Resolution.

24
25 **DULY AND REGULARLY ADOPTED**, this 25th day of August 2015.

26
27 Certified by:

28 

29 _____
30 **JOSEPH T. DUENAS**
31 Chairperson

27 Attested by:

28 

29 _____
30 **J. GEORGE BAMBA**
31 Secretary

32 //

1 I, J. George Bamba, Board Secretary of the Consolidated Commission on Utilities as
2 evidenced by my signature above do hereby certify as follows:

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

7 AYES: _____ 5
8 NAYS: _____ 0
9 ABSTENTIONS: _____ 0
10 ABSENT: _____ 0
11
12
13



14 ///

16 ///

19 ///

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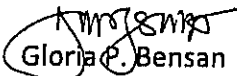


GUAM WATERWORKS AUTHORITY

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

July 7, 2015

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

From:  Gloria P. Bensen
Chairperson, Consultant Selection Board

Subject: RFP-06-ENG-2015
Design Services for Route 2 Agat War in the Pacific National Park Sewerline
Rehabilitation and Replacement
GWA Project No. S15-004-EPA

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

EVALUATION COMMITTEE MEMBERS	
Name	Title
John Davis, P.E.	Engineer Supervisor
Clinton Huntington II	Senior Engineer
Sylvia Mercado	Engineer II
Vincent Pangelinan	Centralized Wastewater Maintenance Superintendent

Consultant	Evaluation Score				Total	Rank
1. EMPSCO Engineering Consultants	76	35	85	69	265	6
2. SSFM International, Inc.	80	89	95	82	346	1
3. Duenas, Camacho & Associates, Inc.	69	55	90	80	294	3
4. AmOrient Engineering	77	45	80	77	279	5
5. AECOM	78	50	91	81	300	2
6. GHD, Inc.	69	46	83	82	280	4

Scores were evaluated based on straight average 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

Gloria B. Nelson Public Service Building, 688 Route 15, Mangilao, Guam • Tel. (647) 300-6846

MEMORANDUM

July 7, 2015

To: Mark G. Miller
Interim General Manager

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

Subject: Evaluation Summary
RFP-06-ENG-2015
Design Services for Route 2 Agat War in the Pacific National Park Sewerline
Rehabilitation and Replacement
GWA Project No. S15-004-EPA

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 and shortlisted firms were interviewed.

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

1. SSFM International, Inc.
2. AECOM
3. Duenas, Camacho & Associates

The evaluation summary sheet is attached for your information.

GENERAL MANAGER'S DETERMINATION

Consultant Firm Selected:

Agree with committee rating & selection.

Remarks:

SSFM International, Inc. selected.

Mark G. Miller
Interim General Manager

Date 7/13/2015



Exhibit C (1 of 11)

Ixora Industrial Park
215 Rojas Street, #213
Harmon Guam 96913
Phone: (671) 646-7736
Fax: (671) 646-7737
www.ssfm.com

August 7, 2015

Contract 2015_124.000

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

Attention: Mr. Mark G. Miller, GWA Interim General Manager

PROJECT: Route 2 Agat War in the Pacific National Park Sewer Line Rehabilitation and Replacement Project
Guam
GWA Project S15-004-EPA

REFERENCES: 1) GWA RFP-06-ENG-2015, Dated May 21, 2015
2) GWA Letter Dated July 15, 2015

AGREEMENT FOR PROFESSIONAL SERVICES

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

ATTACHMENTS

This AGREEMENT 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

GENERAL DESCRIPTION OF THE PROJECT

The project is described as identifying sewer pipeline deficiencies, evaluating alternative solutions, developing engineering design documents, and providing bidding and construction support services for a sewer pipeline rehabilitation or replacement effort along Route 2, War in the Pacific National Park, in Agat.

The main gravity sewer pipeline experiences sanitary sewer overflows and surcharging, especially during wet weather. During the Sanitary Sewer Evaluation Survey of Agat, it was discovered that a portion of the sewer pipeline has collapsed.

During manhole inspections, all the manholes directly upstream from the War in the Pacific National Park were found to be surcharged. When GWA tried to Closed-Circuit Television (CCTV) the line, they found that rock and debris within the pipeline. Following further investigation, an open hole to the collapsed pipe below was discovered.

The location of the collapsed pipe is approximately 450' from where the sanitary sewer pipeline turns to enter the Agat Wastewater Treatment Plant. This project is evaluate approximately 2,100 feet of pipe along Route 2, from the entrance to the WWTP, upstream past the War in the Pacific National Park, for repair or replacement to improve wastewater service and reliability. The existing pipe diameter is 20". The main gravity lines in Route 2 have no redundancy. Therefore, any temporary halt in services for these lines will require bypass measures to be in place.





August 7, 2015

Contract 2015_124.000

SERVICES TO BE PROVIDED

1. Description of Civil Engineering Services
 - a. Pre-design data gathering of available design records, site investigation including coordinating with sub consultants for CCTV of sewer lines and manholes, assessment report following NASSCO standards, topographic survey and asbestos sampling at selected manholes.
 - b. Arrange for minimal sewer vacuum trucks during the CCTV investigation. GWA shall provide assistance in plugging the lines and provide additional vacuum trucks as necessary in case of unexpected large flows and/or debris in the pipes.
 - c. Prepare plans, specification and cost estimate for rehabilitation or replacement the existing 2,100 LF of 20" gravity collector sewer pipeline and sewer manholes. Estimates will conform to the guidelines of the Association for the Advancement of Cost Engineering International (AACE).
 - d. Prepare plans or reference to Guam DPW standards for sidewalks, curbs, roadway, traffic signs, pavement markings, asphalt and concrete driveway restoration.
 - e. Prepare plans for recommended contractor stockpile and staging area.
 - f. Prepare plans for proposed sewer bypass during construction.
 - g. Provide design alternative report based upon the findings and conclusions from the pre-design data gathering and site investigation work. Determine which sewer pipe segments are to be replaced or rehabilitated.
 - h. Provide a traffic control plan for the rerouting of traffic around the construction area during construction of the improvements.
 - i. Prepare an erosion and sedimentation control plan.
 - j. Prepare an archeologic records search summary for the project area and include a monitoring plan.
 - k. Prepare an EPA NPDES General Permit Application NOIs for storm water associated with construction activities and dewatering.
2. Description of Topographic Survey Services
 - a. Establish horizontal and vertical benchmarks throughout project site.
 - b. Provide spot elevations checks of GWA furnished LIDAR elevations.
 - c. Indicate location of sewer manholes, measuring invert and showing pipe alignments where applicable.
 - d. Exclude boundary survey.
 - e. Complete field survey in two weeks, weather and schedule permitting.
 - f. Provide computation and AutoCAD mapping.
3. Description of Asbestos Survey Services
 - a. Coordinate with USEPA early on in the project and prepare a work plan, incorporating USEPA's guidance.
 - b. Provide safety plan for asbestos sampling and confined space entry at sewer manholes.
 - c. Conduct a site investigation and determine the presence of asbestos in the pipe and in the soil.
 - d. Take samples of the pipe material and analysis.
 - e. Provide markup specification in PDF format for asbestos containing material (ACM) pipe demolition and disposal.
 - f. Provide cost estimate for abatement/mitigation.
4. Description of Archeologic Monitoring Plan and Services (Optional Service)
 - a. Prepare an Archeologic Monitoring and Discovery Plan.
 - b. Consult with representatives from Guam Historic Preservation Office

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Exhibit C (3 of 11)

Guam Waterworks Authority
Route 2 Agat War in the Pacific National Park Sewer
Line Rehabilitation and Replacement Project
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- c. Provide monitoring during geotechnical investigation for three borings.
- 5. Description of CCTV Sewer Line and Manhole Investigation and Assessment
 - a. Prepare a work plan.
 - b. Conduct CCTV investigation and assessment following NASSCO standards.
 - c. Flush existing lines and manholes up to 2,100 LF and remove backflow if pipe walls and joints are not visible on CCTV due to high turbidity. GWA shall provide assistance in plugging the lines and provide additional vacuum trucks as necessary in case of unexpected large flows and/or debris in the pipes.
 - d. Submit assessment report.
 - e. Provide recommendation for pipe repair or replacement.
- 6. Description of Geotechnical Investigation Services (Optional Service for road and pipe replacement work)
 - a. Provide one (1) mobilization to the job site.
 - b. Coordinate site boring with the Archeological monitoring.
 - c. SSFM to provide proposed soils boring locations, up to 3 borings 10-20 feet deep, along existing 2,100 LF sewer alignment.
 - d. Provide subsurface soil sampling and analysis (moisture and density, sieve analysis, Atterburg Limits, Modified Proctor and California Bearing Ratio tests) during regular working hours.
 - e. Ship off-island soils samples corrosivity tests.
 - f. Provide recommendation for trenching and shoring, pipe bedding, backfill material specification and compaction requirements, and asphalt pavement requirements.

CHARGES FOR PROFESSIONAL SERVICES

For the services to be provided shown hereinbefore, compensation for our services shall be lump sum including the Guam gross receipt tax as follows:

LUMP SUM FEE = \$266,720.00

OPTIONS:

- 1) Geotechnical Field Investigation Services \$ 15,668.00
- 2) Archeologic Data Analysis & Report \$ 11,266.00
- 3) Archeologic Field Monitoring During Construction. Monitoring services will be conducted on an on-call basis with a four-hour minimum for each call out at \$150/HR = \$600 per call.

If our services covered by this Agreement have not been completed within 18 months of the date hereof, through no fault of SSFM, the remaining fees shall be escalated at the rate of 5% per year.

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>
Data Gathering and Site Investigations	6 weeks after notice to proceed (NTP Est September 15)
30% Design	6 weeks (Estimated September 2015 pending NTP)
GWA Review	3 Weeks Upon Receipt of 30% Design



Exhibit C (4 of 11)

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<u>Phase</u>	<u>Estimated Time</u>
Progress 90% Design	4 Weeks Upon Receipt of GWA Review (Est. November 2015)
GWA Review	3 Weeks Upon Receipt of 90% Design
100% "Issued for Bid"	3 Weeks Upon Receipt of GWA Review (Est. December 2015)
Ready to Advertise	January 2016
Pre-bid Meeting	To be Announced by GWA (Est. March 2016)
Bid Evaluation	To be Announced by GWA (Est. March 2016)
USEPA Approval of Contractor	To be Announced by GWA (Est. April 2016)
Award Contract	To be Announced by GWA (Est. May 2016)
100% "Issue for Construction"	To be Announced by GWA (Est. May 2016)

CONTINGENCY FOR CONSTRUCTION COSTS

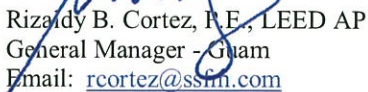
Since this PROJECT utilizes a project delivery process that requires establishment of an opinion of probable construction cost before completion of the contract documents, SSFM recommends that the CLIENT requests that the Owner and/or General Contractor provide for an adequate contingency amount in the construction costs for contract document changes during construction.

Should this AGREEMENT meet with your approval, please sign and return one copy; if not, please call for further discussions and/or clarifications.

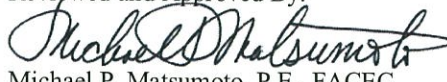
We will begin services upon receipt of a signed copy of this AGREEMENT. In the event that you ask us to proceed with any work on this PROJECT and are unable to return a signed copy of this AGREEMENT to us, we will begin services with the understanding that you have agreed with all of the terms and conditions of this AGREEMENT.

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

SSFM INTERNATIONAL, INC.


Rizaldy B. Cortez, P.E., LEED AP
General Manager - Guam
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

August 7, 2015

EXHIBIT "A"

SCOPE OF SERVICES

DESCRIPTION OF SERVICES

1. Our engineering services as outlined under "Basic Scope of Work" will be limited to the following physical limits:
Approximately 2,100 linear feet along Route 2 by 100 feet wide area, from the entrance to the WWTP, upstream past the War in the Pacific National Park, for repair or replacement to improve wastewater service and reliability. The sewer alignment segment map is attached to the GWA RFP.
2. Estimated Construction Budget (Proposed Improvements): \$ 2,000,000.00
(Note: This budget information was provided by GWA)

BASIC SCOPE OF WORK

1. Engineering Services:
 - (a) Concept (30%) Design Phase:
 - (1) Prepare Design Alternatives Report
 - (2) Provide a maximum of 3 site visits to visually observe existing conditions.
 - (3) Conduct research and review of existing documents.
 - (4) Review LIDAR and topographic survey.
 - (5) Establish design criteria.
 - (6) Provide design criteria for use by the Soils Engineer, archeologists findings, asbestos containing material survey and sewer assessment report.
 - (7) Prepare concept drawings:
 - (a) Title Sheet and Location Map
 - (b) Notes, Legend, Symbols
 - (c) Contractor's Stockpile & Staging Site Plan
 - (d) Utility Notes
 - (e) Erosion & Sedimentation Control (ESC) Plan
 - (f) Sewer Bypass Plan
 - (g) Plans and Profiles at 1"=40' Scale Printed on Half Size Sheets
 - (8) Prepare outline of portions of specifications pertaining to SSFM's scope of services.
 - (9) Attend a maximum of 2 client meetings.
 - (b) Design Development Phase:
 - (1) Respond to review comments on concept design deliverables.
 - (2) Prepare design of selected alternative.
 - (3) Prepare progress (90%) design drawings:
 - (a) Title Sheet and Location Map
 - (b) Notes, Legend, Symbols

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- (c) Contractor's Stockpile & Staging Plan
- (d) Utility Notes
- (e) Erosion & Sediment Control (ESC) Plan
- (f) Sewer Bypass Plan
- (g) ESC Details
- (h) Civil Utilities Details
- (i) Site-Specific Traffic Control Plans
- (4) Prepare technical specifications pertaining to SSFM's scope of services.
- (5) Prepare an updated Basis of Design
- (6) Prepare opinion of probable construction costs limited to SSFM's portion of the work only.
- (7) Prepare prefinal NPDES General Permit Application(s), calculations, and exhibits.
- (8) Attend a maximum of 2 client meetings.
- (c) Final (100%) Contract Documents Phase:
 - (1) Respond to review comments on progress (90%) deliverables.
 - (2) Prepare final drawings appropriate for construction and to the prevailing standard of care.
 - (3) Prepare final draft of portions of specifications pertaining to SSFM's scope of services.
 - (4) Prepare record engineering calculations, if required by CLIENT or public agency.
 - (5) Obtain approvals from appropriate public agencies.
 - (6) Prepare NPDES General Permit Application(s)
- (d) Construction Administration Phase:
 - (1) Bidding and Award.
 - (a) Facilitate Pre-Bid Meeting, provide agenda, sign-in and meeting minutes.
 - (b) Assist in the evaluation of bidder's qualifications.
 - (c) Provide addenda and clarifications pertaining to SSFM's scope of services.
 - (d) Evaluate requests for substitutions.
 - (e) Attend pre-bid meeting if required by CLIENT.
 - (2) Pre-Construction Services.
 - (a) Attend one (1) preconstruction meeting, if required by CLIENT.
 - (b) Provide clarifications pertaining to SSFM's scope of services.
 - (c) Attend a maximum of 2 client meetings

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. Civil Engineering Work NOT INCLUDED

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- a. Attendance at public hearings.
 - b. Owner or CLIENT requested finishes on sidewalks and driveways.
 - c. Hydraulic modeling and sewer flow monitoring.
 - d. Landscaping and landscape irrigation.
 - e. Electrical service, telephone service, CATV service.
 - f. Treatment system for non-domestic sewage.
 - g. Hazardous material location or identification other than asbestos.
 - h. Hazardous material removal.
 - i. New offsite utility improvements such as new sewers, new water mains or new offsite drains.
 - j. Environmental assessment.
 - k. Reproduction services for bid sets or construction permit applications.
 - l. Preparation and/or processing of construction permit applications. (Contractor will be responsible for construction permits)
2. Topographic Survey Work NOT INCLUDED
- a. Construction Stakeout.
 - b. Post Construction Survey.
 - c. Archeological Survey.

INFORMATION REQUIRED FROM CLIENT

1. Existing engineering plans, specifications, LIDAR survey, geotechnical reports, CCTV sewer investigations and sewer flow analysis.

ASSUMPTIONS MADE

1. Existing utilities (sewers, water mains, and drain lines) are adequate to serve the existing development.
2. The NPDES General Permit will be accepted by Guam Environmental Protection Agency (GEPA). If after GEPA review, GEPA determines that an Individual NPDES Permit is required, additional services and fees will be required.
3. Geotechnical and Archeological services are proposed as additive options. If during the course of the project, those services are requested, the scope and fees as listed above will become part of the agreement.

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Exhibit C (8 of 11)

Route 2 Agat Sewer Line Rehabilitation and Replacement Project

Task Number	Task Description	Principal Engineer	Project Manager	Staff Engineer	Project Inspector	Secretary/Clerk	CADD Operator	Subconsultants	Amount
HOURLY LABOR RATES		\$ 212.00	\$ 186.00	\$ 95.00	\$ 132.00	\$ 82.00	\$ 90.00		
1	PROJECT MANAGEMENT								
A	Project Meetings	4	24			4			5,640
B	Project Management Plan (per GWA)	1	8						1,700
C	Schedule	1	16						3,188
D	Monthly Progress Report with Billing		24			12			5,448
	Expenses								892
	SUBTOTAL	6	72			16			16,868
2	DATA RESEARCH								
A	Record Plans, Insp & Maint Records, Etc.	2	4	12					2,308
B	Find Existing & Future Flow Estimates	2	4	12					2,308
C	Interview with GWA Staff	2	12			4			2,984
	Expenses								405
	SUBTOTAL	6	20	24		4			8,005
3	FIELD INVESTIGATION								
A	ID Data Gaps for 2100 LF Pipe Segment	2	8		24				5,080
B	Pipe & SMH Assessment		8		24				4,656
C	Supplemental Pipe Cleaning, CCTV	2	24	24				11,550	18,718
D	Flow Monitoring at SMH								
	Expenses								8,580
	SUBTOTAL	4	40	24	48			11,550	37,034
4	HYDRAULIC ANALYSIS								
A	Peak Flow (Opeak) Hydraulic Analysis								
B	Recommendation & Imprv to Accomodate Opeak								
	Expenses								
	SUBTOTAL								
5	DESIGN ALTERNATIVE REPORT (DAR)								
A	Data Reference List fr Task 2		8						1,488
B	Findings & Conclusions fr Task 3		8						1,488
C	Findings & Conclusions fr Task 4		8						1,488
	Expenses								275
	SUBTOTAL		24						4,739
6	DESIGN DOCUMENTS								
A	Project Controls								
A1	Utility Survey	2	8	8	4			7,000	10,200
A2	Archeologic Monitoring & Data Recovery Plan	2	4				5,436		6,604
A3	Program Manager Information Coord.	2	4						1,168
A4	ID & Comply with NEPA Grant Conditions	2	4						1,168
	Expenses								200
	SUBTOTAL	8	20	8	4		12,436		19,340
B	30% Design								

Exhibit C (9 of 11)

Route 2 Agat Sewer Line Rehabilitation and Replacement Project

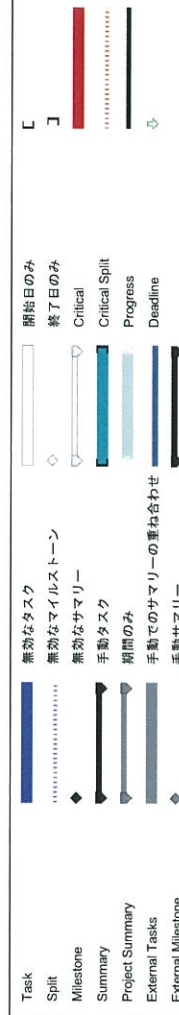
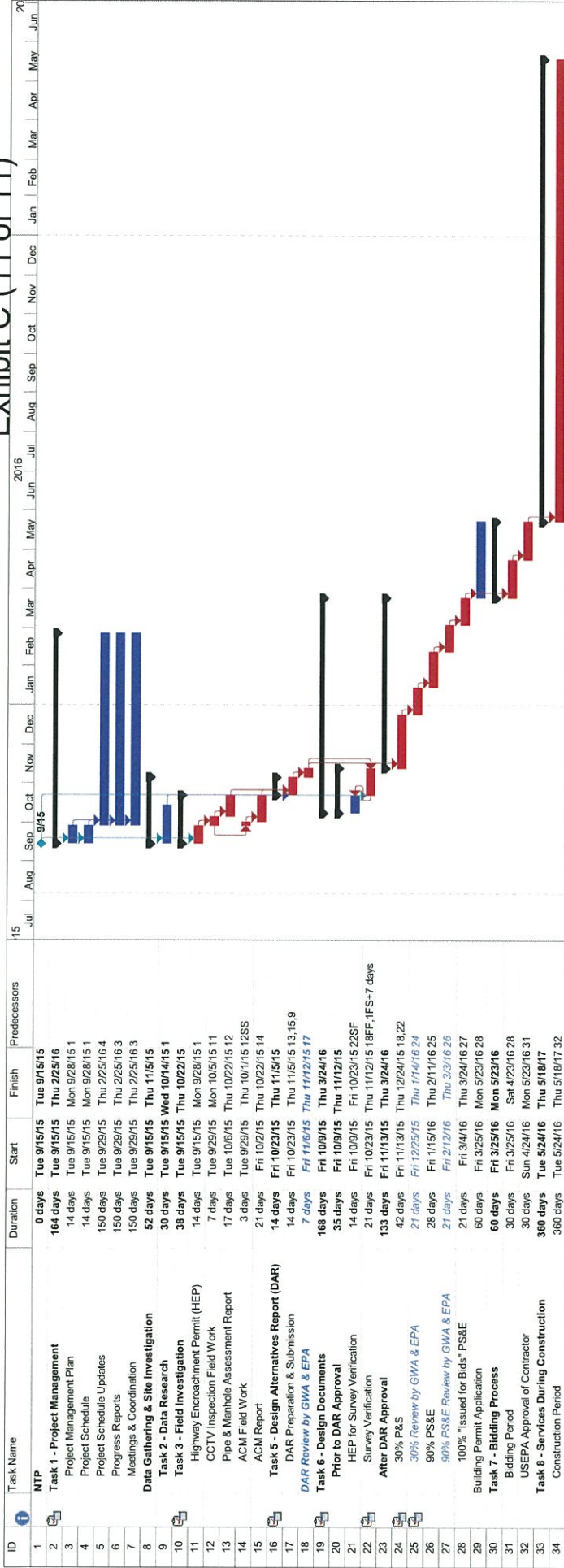
Task Number	Task Description	Principal Engineer	Project Manager	Staff Engineer	Project Inspector	Secretary/Clerk	CADD Operator	Subconsultants	Amount
HOURLY LABOR RATES		\$ 212.00	\$ 186.00	\$ 95.00	\$ 132.00	\$ 82.00	\$ 90.00		
B1	Prepare Notes, Demo, ESC, TCP and Plans		16	80		8	80		18,432
B2	Prepare Concept Outline Tech Spec		4			2			908
B3	Basis of Design		16			8			3,632
B4	QC Review & Editing	4	40	16			24		11,968
B5	Respond to Gov't Review Comments		4						744
	Expenses (Incl. 5 Sets)								2,100
	SUBTOTAL	4	80	96		18	104		37,784
C	Progress 90% Design								
C1	Prepare Plans, Including Plan Profiles, Details		16	60		8	120		20,132
C2	Prepare Tech Spec Sections		12			12			3,216
C3	Edit Basis of Design, Add Appendices		8			8			2,144
C4	QC Review & Editing	4	32	32			60		15,240
C5	Respond to Gov't Review Comments		8						1,488
	Expenses (Incl. 5 Sets)								3,700
	SUBTOTAL	4	76	92		28	180		45,920
D	Final 100% Design "Issued for Bid"								
D1	Prepare Plans, Including Plan Profiles, Details		16	60		8	90		17,432
D2	Edit Tech Spec Sections		12			12			3,216
D3	Edit Basis of Design & Appendices		8			8			2,144
D4	QC Review & Editing	4	40	24			32		13,448
D5	Digital Copies of FINAL Deliverables		8	16		8	16		5,104
	Expenses (Incl. 5 Sets)								3,700
	SUBTOTAL	4	84	100		36	138		45,044
E	Permit Applications								
4.1	Prepare Applications for NPDES NOI, Utilities and Highway	2	8	40		16	40		10,624
4.2	Coordinate with Gov't Authorities	2	8	20					3,812
4.3	Respond to Gov't Review Comments		8	8					2,248
	Expenses								600
	SUBTOTAL	4	24	68		16	40		17,284
F	Construction Cost Estimate								
4.1	30% Estimate								
4.2	Progress 90% Estimate		16	24					5,256
4.3	Final 100% Estimate								
4.4	QC Review & Editing	2	12						2,656
	Expenses								100
	SUBTOTAL	2	28	24					8,012
7	BIDDING PROCESS								
A	Pre-bid Mtg Agenda, Sign-in, Minutes		16			8			3,632
B	RFI Addendum		24	24		8	24		9,560
C	Bid Eval Conference		4						744
D	Recommend Constr Contract Award		4						744
	Expenses								70
	SUBTOTAL		48	24		16	24		14,750
8	SERVICES DURING CONSTRUCTION								

Exhibit C (10 of 11)

Route 2 Agat Sewer Line Rehabilitation and Replacement Project

Task Number	Task Description	Principal Engineer	Project Manager	Staff Engineer	Project Inspector	Secretary/Clerk	CADD Operator	Subconsultants	Amount
	HOURLY LABOR RATES	\$ 212.00	\$ 186.00	\$ 95.00	\$ 132.00	\$ 82.00	\$ 90.00		
A	Prepare "Issued for Construction" P&S	2	8			14	16		4,500
B	Design RFIs		40						7,440
	Expenses								
	SUBTOTAL	2	48			14	16		11,940
	TOTAL FEE	44	564	460	52	148	502	23,986	266,720
Options									
6 A5	Geotechnical Investigation	2	4					14,500	15,668
8 C	Archaeologic Field Data Analysis and Report							Total Hrs	\$ 11,266
	Field Monitoring Hourly Fee		\$ 125						
								Total	\$ 26,934

Exhibit C (11 of 11)



Project: 150807 Agri Sewer Initial Schedule
Date: Fri 8/7/15