



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

GWA RESOLUTION NO. 52-FY2018

**RELATIVE TO APPROVAL OF CHANGE ORDERS TO THE BAZA GARDENS
WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PHASE I
AND PHASE II CONTRACTS**

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, to meet a mandate of the 2011 federal Court Order regarding the Baza Gardens Wastewater Treatment Plant (WWTP), GWA elected to remove the treatment plant from operation and to instead pump the wastewater to the new (under construction) Agat-Santa Rita WWTP; and

WHEREAS, due to schedule and funds constraints, the project was divided into three phases (I, II and III) and three separate construction contracts, extending from the Baza Gardens WWTP, across Route 17 (cross-island road), and terminating at the entrance to the new Agat-Santa Rita WWTP on Route 2A; and

WHEREAS, the CCU approved via Resolution 01-FY2017 a total funding authorization for Phase I with BME & Sons in the amount of Eight Million Two Hundred Eighty-Two Thousand Five Hundred Fifty-Eight Dollars and Seventy-Five Cents (\$8,282,558.75); via Resolution 13-FY2017 a total funding authorization for Phase II with BME & Sons in the amount of Six Million Two Hundred Fourteen Thousand Nine Hundred Ninety-Seven Dollars and Seventy Cents (\$6,214,997.70) and via Resolution 29-FY2017 a total funding authorization

1 for Phase III with Sumitomo-Mitsui Construction Company in the amount of Sixteen Million
2 Three Hundred Seven Thousand Four Hundred Thirty Six Dollars and Sixty Cents
3 (\$16,307,436.60); and
4

5 **WHEREAS**, the portion of the gravity conveyance system along the entrance road (from
6 Route 2A to the Agat-Santa Rita WWTP site) that is 0.5 miles long was not included in Phase I,
7 II or III of the Cross-Island project as it was deemed in 2016 that the contractor for the new
8 Agat-Santa Rita WWTP project might be better positioned to more cost-effectively execute the
9 gravity line installation work; and
10

11 **WHEREAS**, as of September 2018, the contractor for Phase I of the subject project
12 completed gravity line installation along Route 2A and reached the entrance road to the new
13 Agat Santa Rita WWTP and the contractor for the new WWTP unfortunately was not ready to
14 execute additional scope related to installing of the gravity line along the entrance roadway; and
15

16 **WHEREAS**, due to efforts to comply with Court Order deadlines related to the Baza
17 Gardens WWTP as best as possible, GWA management executed two Change Orders with the
18 Phase I and Phase II contractor, which happen to be the same contractor, BME & Sons, Inc., to
19 install the 21-inch diameter gravity sewer along the entrance roadway to the new WWTP to
20 complete the wastewater conveyance system; and
21

22 **WHEREAS**, the execution of these Change Orders related to the 21-inch gravity line
23 installation depleted the contingency funds approved via CCU Resolution No. 01-FY2017 for the
24 Phase I contract and CCU Resolution No. 13-FY2017 for Phase II contract; and
25

26 **WHEREAS**, both Phase I and Phase II contracts had, prior to the execution of the
27 Change Orders for the 21-inch gravity sewer line installation, pending Change Order Proposals
28 related to unexpected costs for endangered species mitigation measures, unexpected buried
29 utilities in the Navy right-of-way, as well as various sites changes that impacted project cost; and
30

31 //

32 //

1 **WHEREAS**, GWA management determined the installation of the 21-inch gravity line
2 was of higher priority to be completed and that the pending Changed Order Proposals noted
3 above would be addressed via a CCU resolution as a later date; and
4

5 **WHEREAS**, the Change Order Proposals related to the Phase I and Phase II contracts
6 noted above total Three Hundred Twenty-Four Thousand Three Hundred Fifty-Two Dollars and
7 Fifty-Eight Cents (\$324,352.58) (See Exhibit A) and One Hundred Twenty-Eight Thousand Nine
8 Hundred Seventy-Five Dollars and Twenty-Six Cents (\$128,975.26) (See Exhibit B)
9 respectively; and
10

11 **WHEREAS**, GWA management seeks CCU approval for additional funding for the
12 Change Order Proposals for Phase I and Phase II noted above, plus a ten percent (10%)
13 contingency to these amounts or Thirty Two Thousand Four Hundred Thirty-Five Dollars and
14 Twenty Six Cents (\$32,435.26) and Twelve Thousand Eight Hundred Ninety-Seven Dollars and
15 Fifty-Two Cents (\$12,897.52) respectively, to bring the total authorized funding to the Phase I
16 contract to Eight Million Six Hundred Thirty-Nine Thousand Three Hundred Forty-Six Dollars
17 and Fifty-Nine Cents (\$8,639,346.59) and a total authorized finding for Phase II to Six Million
18 Three Hundred Fifty-Six Thousand Eight Hundred Seventy Dollars and Forty Eight Cents
19 (\$6,356,870.48); and
20

21 **WHEREAS**, funding for this project will be from wastewater bond funds applicable to
22 the project as well as System Development Charge funds; and
23

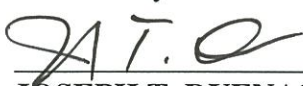
24 **NOW BE IT THEREFORE RESOLVED**, the Consolidated Commission on Utilities
25 does hereby approve the following:

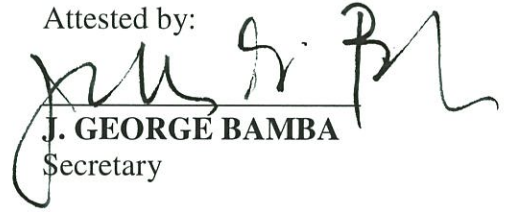
- 26 1. The recitals set forth above hereby constitute the findings of the CCU.
- 27 2. The CCU hereby authorizes additional funding to the Phase I and Phase II
28 contracts for the Baza Gardens Wastewater Cross-Island Pumping and
29 Conveyance project in the amount of Three Hundred Fifty-Six Thousand
30 Seven Hundred Eight-Seven Dollars and Eight-Fours Cents (\$356,787.84)
31 (Exhibit A) and One Hundred Forty-One Thousand Eight Hundred Seventy-
32 Two Dollars and Seventy-Eight Cents (\$141,872.78) (Exhibit B), respectively.

- 3. The CCU further authorizes the total authorized funding to the Phase I contract to Eight Million Six Hundred Thirty-Nine Thousand Three Hundred Forty-Six Dollars and Fifty-Nine Cents (\$8,639,346.59) and a total authorized finding for Phase II to Six Million Three Hundred Fifty-Six Thousand Eight Hundred Seventy Dollars and Forty-Eight Cents (\$6,356,870.48).
- 4. The CCU further authorizes the funding for this project will be from wastewater bond funds applicable to the project as well as System Development Charge funds

RESOLVED, that the Chairman certifies and the Board Secretary attests to the adoption of this Resolution.

DULY AND REGULARLY ADOPTED, this 25th day of September, 2018.

Certified by:

JOSEPH T. DUENAS
 Chairperson

Attested by:

J. GEORGE BAMBA
 Secretary

SECRETARY'S CERTIFICATE

I, J. George Bamba, 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: _____ 0 _____
 ABSTENTIONS: _____ 0 _____
 ABSENT: _____ 0 _____



Exhibit A

ACTIVITY AND LOCATION:		CONSTRUCTION CONTRACT NO.:				DATE:					
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1						6/21/2018					
CCR#13 Re-routing of Gravity Sewer along Rt-17 & Rt-5 Intersection - Encroaching Federal Property		ESTIMATED BY: BME & SONS, INC				STATUS OF DESIGN:					
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT \$	TOTAL	UNIT \$	TOTAL	UNIT \$	TOTAL	UNIT \$	TOTAL
	Deduct excavation works for comm trenches	-45.04	CY	6.00	\$ (270.25)	8.00	\$ (495.46)	11.00	\$ (765.71)	17.00	\$ (765.71)
	Deduct selected fill and compactions	-12.33	CY	8.00	\$ (98.67)	8.00	\$ (62.90)	5.10	\$ (161.57)	13.10	\$ (161.57)
	Deduct disposal of excess soil materials	-33.00	CY		\$ -		\$ (231.00)	7.00	\$ (231.00)	7.00	\$ (231.00)
	Deduct installation of Detectable warning tape	-282.00	LF	0.50	\$ (141.00)		\$ -		\$ -	1.00	\$ (282.00)
	Deduct concrete encasement, 3000PSI	-13.71	CY	137.00	\$ (1,878.04)	18.70	\$ (256.35)		\$ -	155.70	\$ (2,134.39)
	Deduct concrete flowable fill	-15.56	CY	110.75	\$ (1,722.78)	22.85	\$ (355.44)		\$ -	133.60	\$ (2,078.22)
	Deduct installation of Communication handhole		EA		\$ -	500.00	\$ (200.00)	200.00	\$ (200.00)	700.00	\$ (700.00)
	Note: Precast Comm Handhole will be Turn-over to GWA				\$ -		\$ -		\$ -		\$ -
	Deduct installation of 2-4" via Communication conduit	-282	LF		\$ -	3.65	\$ (1,029.30)		\$ -	3.65	\$ (1,029.30)
	ADDITIVE WORKS										
	Force Maine - 3 (additional from sta.27+64.06 to sta.31+28.56)										
	moving excavation due to underground utilities)	65.19	CY		\$ -	12.00	\$ 782.22	28.00	\$ 1,825.19	40.00	\$ 2,607.41
	Provide Pipe Bedding Sand	34.52	TONS	35.85	\$ 1,237.49	10.00	\$ 345.19	6.50	\$ 224.37	52.35	\$ 1,807.04
	Provide Flowable Fill for paved areas and shoulder	41.34	CY	110.75	\$ 4,578.18	22.85	\$ 944.57		\$ -	133.60	\$ 5,522.76
	Disposal of excess soil materials	65.19	CY		\$ -	5.00	\$ 325.95	10.00	\$ 651.90	15.00	\$ 977.85
	Provide Detectable warning tape, 6"	180	LF	0.50	\$ 80.00	0.50	\$ 80.00		\$ -	1.00	\$ 160.00
	Provide 10" dia. PVC pipes, C900 (force main)	380	LF	21.50	\$ 8,170.00		\$ -		\$ -	21.50	\$ 8,170.00
	Provide 10" dia. 1/32 bend DI Elbows	3	EA	352.00	\$ 1,056.00		\$ -		\$ -	352.00	\$ 1,056.00
	Note: All 10" dia. C900 PVC Pipes and fittings specified above are already been procured when the rev.04 drawing was released										
	Install 10" dia. PVC pipes, C900 (force main)	160	LF		\$ -	12.70	\$ 2,032.00	3.50	\$ 560.00	16.20	\$ 2,592.00
	Note: 16OLF of 10" C900 PVC Pipes was already been installed from sta.0+00 to MH43										
	Survey Works	1	Lot		\$ -	1,500.00	\$ 1,500.00		\$ -	1,500.00	\$ 1,500.00
	Force Main - 3 Road Repair										
	Provide Saw-cutting of existing AC pavements	320	LF		\$ -	1.50	\$ 480.00	0.75	\$ 240.00	2.25	\$ 720.00
	Remove and dispose affected AC pavements	58.67	SY		\$ -		\$ -	7.00	\$ 410.67	7.00	\$ 410.67
	Provide Cold Mix AC Pavement Restoration	58.67	SY	40.43	\$ 2,371.89	15.00	\$ 880.00	5.00	\$ 293.33	60.43	\$ 3,545.23
	Sewer Line C - Re-works on MH46										
	Removal of installed percast manhole (MH#46)										
	- Excavation works	31.26	CY		\$ -	10.00	\$ 312.59	15.00	\$ 468.88	25.00	\$ 781.47
	- Backfilling and compactions, 10' x 10' x 10 ft deep backfilling	37.04	CY		\$ -		\$ -		\$ -	28.00	\$ 1,037.04
	Compaction per lift	12.00	lift			16.50	\$ 198.00	55.00	\$ 660.00	71.50	\$ 858.00
	Compaction testing per lift	12.00	lift			10.50	\$ 126.00	15.00	\$ 180.00	25.50	\$ 306.00
	Compaction testing tech stand-by	12.00	hr			55.00	\$ 660.00	45.00	\$ 540.00	45.00	\$ 540.00

ACTIVITY AND LOCATION:		CONSTRUCTION CONTRACT NO.:				DATE:						
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1						6/21/2018						
CCR#13 Re-routing of Gravity Sewer along Rt-17 & Rt-5 Intersection - Encroaching Federal Property		ESTIMATED BY: BME & SONS, INC				STATUS OF DESIGN:						
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE		
		QTY	UNIT	UNIT \$	TOTAL	UNIT \$	TOTAL	UNIT \$	TOTAL	UNIT \$	TOTAL	
	DEDUCTIVE WORKS											
	Sewer Line C (Rt5 & Rt17 Intersection) sta.0+00 to sta.2+82.53											
	Deduct excavation works from gravity pipes at sta. 0+00 to sta. 2+82.53	-215.78	CY			6.00	(1,294.67)		11.00	(2,373.56)	17.00	(3,668.22)
	Deduct excavation works for regular manhole MH42 & 43	-47.41	CY			6.00	(284.44)		11.00	(521.48)	17.00	(805.93)
	Deduct selected fill materials and compactions (pipeline on off-road areas)	-130.00	CY						5.10	(663.00)	13.10	(1,703.00)
	Deduct pipe bedding sand	-65.28	TONS			35.85	(2,340.21)		6.50	(424.31)	52.35	(3,417.29)
	Deduct flowable fill (pipeline on pave areas)	-31.11	CY			110.75	(3,445.56)				133.60	(4,156.44)
	Deduct Concrete Encasement on pipes w/ above utility crossings (20ft long)	-2.96	CY			137.00	(405.93)				155.70	(461.33)
	Deduct disposal of excess soil materials	-190	CY						7.00	(1,330.00)	7.00	(1,330.00)
	Deduct installation of warning tape "Sewerline"	-282	LF			0.50	(141.00)				1.00	(282.00)
	Deduct installation of 12" PVC Pipe SDR35	-282	LF						3.50	(987.00)	16.20	(4,568.40)
	Deduct installation of fittings for drop manhole	-1	EA								700.00	(700.00)
	Delete Precast Concrete Manhole 8' - 10' depth, 4' dia, regular, includes concrete collar, MH frame, cover and odor control insert (MH42&43)											
	- Delete Compacted Basecourse	-3.18	TONS			35.00	(111.16)				59.00	(187.38)
	- Delete installation of MH Frame and MH Odor Insert	-2	EA						100.00	(200.00)	450.00	(900.00)
	- Delete reinforced concrete collar	-2.03	CY			180.00	(366.02)		50.00	(101.67)	555.00	(1,128.55)
	- Delete installation of MH#41	-2	EA						475.00	(950.00)	1,045.00	(2,090.00)
	Note1 : Regular Concrete Precast Manhole MH42 & MH43, MH Frame & Cover and 200LF of 12" PVC pipes will be Turn-over to GWA											
	Note 2: MH43 for this revised drawing will be Effluent Manhole w/c is previously MH41 on the original contract drawing											
	Deduct concrete encasement of piping for manhole drop connections to manhole	-1.13	CY			137.00	(154.13)		10.00	(11.25)	177.00	(199.13)
	Delete Epoxy Coating Liner for Precast Manhole MH42 & MH43	-216.00	SF			2.35	(507.60)				6.35	(1,371.60)
	Sewer Line C - Road Repair along Rt5 & Rt17 Intersection											
	Delete saw-cutting portion of AC Pavements	-280	LF						0.75	(210.00)	2.25	(630.00)
	Delete removal and disposal of AC Pavements	-46.67	SY						7.00	(326.67)	7.00	(326.67)
	Delete 3" thick AC Pavement	-46.67	SY			40.43	(1,886.73)				40.43	(1,886.73)
	Communication Conduit and Handhole Installation											

ACTIVITY AND LOCATION:		CONSTRUCTION CONTRACT NO.:		DATE:							
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1				6/21/2018							
CCR#13 Re-routing of Gravity Sewer along Rt-17 & Rt-5 Intersection - Encroaching Federal Property		ESTIMATED BY:		BME & SONS, INC							
		STATUS OF DESIGN:									
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGS ESTIMATE	
		QTY	UNIT	UNIT \$	TOTAL	UNIT \$	TOTAL	UNIT \$	TOTAL	UNIT \$	TOTAL
	SUB-TOTAL										
	Profit	6%									\$ 31,701.79
	SUB-TOTAL										\$ 2,488.70
	GRT	4.167%									\$ 33,559.29
											\$ 1,399.67
	TOTAL PROPOSED ADDITIVE AMOUNT FOR CCR#13										\$ 34,888.95

ACTIVITY AND LOCATION:		CONSTRUCTION CONTRACT NO.:						DATE:			
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1		ESTIMATED BY: BME & SONS, INC						6/21/2018			
								CCR#14 Rework Gravity Pipes between SMH#3 & SMH#4 due to conflict elevation with existing Storm Drain (RFI#24)		STATUS OF DESIGN:	
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT \$	TOTAL	UNIT \$	TOTAL			UNIT \$	TOTAL
	Existing Storm Drain line was found in conflict of new Gravity line during the pipe laying near SMH#4. All new laid pipes was pulled out and trench was covered right away due to deep and wide excavations										
a	Excavation works from gravity pipes SMH#3 to SMH#4	100.00	CY			8.00	\$ 800.00	12.00	\$ 1,200.00	20.00	\$ 2,000.00
b	Installation of 12" pipe	60.00	FT			12.50	\$ 750.00	2.50	\$ 150.00	15.00	\$ 900.00
b.1	Pull-out and salvage newly installed pipes	60.00	FT			10.00	\$ 600.00	2.50	\$ 150.00	12.50	\$ 750.00
c	Backfilling of excavated trench	100.00	CY			8.00	\$ 800.00	5.00	\$ 500.00	13.00	\$ 1,300.00
d	Remove portion of existing 30" drainage line	8.00	LF			7.50	\$ 60.00	15.00	\$ 120.00	22.50	\$ 180.00
e	Concrete in-fill original manhole pipe opening	1	EA	50.00	\$ 50.00	80.00	\$ 80.00		\$ -	130.00	\$ 130.00
f	Make new opening for 12" dia pipe using jack hammer power tools with 2 workers at 4 hrs	1	EA			100.00	\$ 100.00	50.00	\$ 50.00	150.00	\$ 150.00
g	Repair rough openings/concrete in-fill after pipe installation	1	EA	25.00	\$ 25.00	50.00	\$ 50.00		\$ -	75.00	\$ 75.00
h	Provide additional concrete topping inside manhole, revised manhole drop elevations with additional of 2 feet topping Note: Crew worked overtime to backfilled and temporary restore the trench for safety purposes and trench gets wider on the re-excavation.	1	CY	175.00	\$ 175.00	150.00	\$ 150.00		\$ -	325.00	\$ 325.00
	Total Direct (Additive & Deductive)				\$ 250.00		\$ 3,390.00		\$ 2,170.00		\$ 5,810.00
	Overhead			10%							\$ 581.00
	Direct Admin & Supervisory Cost			3%							\$ 174.30
	SUB-TOTAL										\$ 6,565.30
	Profit			8%							\$ 525.22
	SUB-TOTAL										\$ 7,090.52
	GRT			4.167%							\$ 295.46
	TOTAL PROPOSED AMOUNT FOR CCR#14										\$ 7,385.99

ACTIVITY AND LOCATION:		CONSTRUCTION CONTRACT NO.:				DATE:					
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1						Wednesday, July 26, 2018					
CCR#15_rev01 Road Trench Restortion (RFI#27 SMH61 - Revised pipe lay-out at Paved Area)		ESTIMATED BY:				BME & SONS, INC					
		STATUS OF DESIGN:									
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT \$	TOTAL	UNIT \$	TOTAL			UNIT \$	TOTAL
21	Sewer Line C - New Road Restoration by Patching, 3ft x 340LF for Sewerline & 20" x 340ft for CommLine										
	Saw-cut existing AC pavement	696	LF	\$ -		1.50	\$ 1,044.00	\$ 0.75	\$ 522.00	2.25	\$ 1,566.00
	Remove and dispose affected AC pavements, Sewerline	132.50	SY	\$ -			\$ -	\$ 7.00	\$ 927.50	7.00	\$ 927.50
	Remove and dispose affected AC pavements, CommLine	76	SY	\$ -			\$ -	\$ 7.00	\$ 532.00	7.00	\$ 532.00
	Provide 3" thick Cold mix asphalt restoration (temporary patching) - For Sewerline & CommLine	208.50	SY	34.80	\$ 7,255.80	5.00	\$ 1,042.50	\$ 9.20	\$ 1,918.20	49.00	\$ 10,216.50
	Temporary Traffic Control										
	Provide Traffic control (Signages, Barriers, etc..)										
	- Flagmen, 2 men	5	Days	\$ -		160.00	\$ 800.00	\$ -		160.00	\$ 800.00
	Provide temporary steel plate	340	LF	\$ -		6.00	\$ 2,040.00	\$ 3.00	\$ 1,020.00	9.00	\$ 3,060.00
	Total Direct (Additive & Deductive)				\$ 7,255.80		\$ 4,926.50		\$ 4,919.70		\$ 17,102.00
	Overhead		10%								\$ 1,710.20
	Direct Admin & Supervisory Cost		3%								\$ 513.06
	SUB-TOTAL										\$ 19,325.26
	Profit		8%								\$ 1,546.02
	SUB-TOTAL										\$ 20,871.28
	GRT		4.167%								\$ 869.71
	TOTAL PROPOSED ADDITIVE AMOUNT FOR CCR#15										\$ 21,740.99

ACTIVITY AND LOCATION:		CONSTRUCTION CONTRACT NO.:						DATE:			
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1		ESTIMATED BY: BME & SONS, INC						7/25/2018			
								STATUS OF DESIGN:			
CCR#19 Route 2A Road Restoration due to Sewerline Re-alignment from SMH#74 Sta. 73+48.33 to SMH#81 Sta 95+83.69											
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT \$	TOTAL	UNIT \$	TOTAL			UNIT \$	TOTAL
ADDITIVE WORKS											
<i>Traffic Control</i>											
<i>Provide additional traffic control along sta. 72+00 to sta. 79+00 and from Sta 88+50 to 91+50</i>											
	<i>- Flagmans, 2man-crew</i>	20	Days	\$ -		160.00	\$ 3,200.00		\$ -	160.00	\$ 3,200.00
	<i>Provide temporary steel plate</i>	1000	LF	\$ -		2.00	\$ 2,000.00	\$ 3.00	\$ 3,000.00	5.00	\$ 5,000.00
Manhole Adjustment											
	<i>For MH74, adjustment of grade ring from 3" to 8" height</i>	1	EA	150.00	\$ 150.00	200.00	\$ 200.00		\$ -	350.00	\$ 350.00
	<i>For MH75, additional 1ft high precast riser</i>	1	EA	284.25	\$ 284.25	100.00	\$ 100.00	\$ 50.00	\$ 50.00	434.25	\$ 434.25
	<i>For MH76, adjustment of grade ring from 3" to 5" height</i>	1	EA	100.00	\$ 100.00	150.00	\$ 150.00		\$ -	250.00	\$ 250.00
	<i>For MH77, No adjustment</i>										
Provide additional precast manholes SMH79A between SMH79 & SMH80:											
	<i>- Precast Manhole Base, 2.83' high</i>	1	EA	1,764.00	\$ 1,764.00	250.00	\$ 250.00	\$ 180.00	\$ 180.00	2,194.00	\$ 2,194.00
	<i>- Precast Manhole Cone, 3' high</i>	1	EA	743.65	\$ 743.65	150.00	\$ 150.00	\$ 150.00	\$ 150.00	1,043.65	\$ 1,043.65
	<i>- Precast 1ft high Riser</i>	1	EA	284.25	\$ 284.25	150.00	\$ 150.00	\$ 150.00	\$ 150.00	584.25	\$ 584.25
	<i>- Concrete grade ring, 6" high, cast in-place</i>	1	EA	150.00	\$ 150.00	250.00	\$ 250.00		\$ -	400.00	\$ 400.00
	<i>- 15" dia Kor-N-Seal</i>	2	EA	126.65	\$ 253.30	50.00	\$ 100.00		\$ -	176.65	\$ 353.30
	<i>- airfreight cost of KorNSeal</i>	2	EA	125.00	\$ 250.00		\$ -		\$ -	125.00	\$ 250.00
	<i>- Butyl Joint Sealant</i>	21	LF	2.50	\$ 52.50	5.00	\$ 105.00		\$ -	7.50	\$ 157.50
	<i>- 30" Manhole Frame and cover (used MH frame and cover from MH26)</i>	1	EA	829.28	\$ 829.28	180.00	\$ 180.00	\$ 25.00	\$ 25.00	1,034.28	\$ 1,034.28
	<i>- Reinforced concrete collar</i>	1	EA	150.00	\$ 150.00	300.00	\$ 300.00	\$ 50.00	\$ 50.00	500.00	\$ 500.00
	<i>- Epoxy concrete liner</i>	103.96	SF	2.35	\$ 244.31	4.00	\$ 415.84		\$ -	6.35	\$ 660.15
Sewer Line C (Rout 2A) - Additional Road Restoration											
	<i>Additional saw-cutting of existing pavement Sta. 72+00 to Sta 79+10 and Sta 88+50 to Sta 91+50 (1010 LF x 3)</i>	3030	LF	\$ -		1.50	\$ 4,545.00	\$ 0.75	\$ 2,272.50	2.25	\$ 6,817.50
	<i>Removal & disposal of existing pavement from Sta. 72+00 to Sta 79+10 and Sta 88+50 to Sta 91+50 (1010 LF x 12)</i>	1347	SY	\$ -			\$ -	\$ 7.00	\$ 9,429.00	7.00	\$ 9,429.00
	<i>Provide additional 3" thk AC Pavements</i>	1347	SY	40.43	\$ 54,459.21	1.00	\$ 1,347.00		\$ -	41.43	\$ 55,806.21
	<i>Provide additional 3/4" thk Friction course</i>	1347	SY	22.61	\$ 30,455.67		\$ -		\$ -	22.61	\$ 30,455.67
	<i>Provide painted line markings</i>	1010	LF	1.25	\$ 1,262.50	1.50	\$ 1,515.00		\$ -	2.75	\$ 2,777.50
	<i>Revisions on SMH80 - invert at downstream is deeper of 2 ft:</i>										
	<i>No Change on volume of excavation</i>										
	<i>Modification of SMH80 due to revised elevation</i>										

ACTIVITY AND LOCATION:		CONSTRUCTION CONTRACT NO.:						DATE:			
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1		ESTIMATED BY:						7/25/2018			
								BME & SONS, INC			
CCR#19 Route 2A Road Restoration due to Sewerline Re-alignment from SMH#74 Sta. 73+48.33 to SMH#81 Sta 95+83.69											
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT \$	TOTAL	UNIT \$	TOTAL	UNIT \$	TOTAL	UNIT \$	TOTAL
	- fill to block-out existing manhole opening	1	EA	50.00	\$ 50.00	180.00	\$ 180.00	\$ 25.00	\$ 25.00	255.00	\$ 255.00
	- provide new opening	1	EA	25.00	\$ 25.00	300.00	\$ 300.00	\$ 120.00	\$ 120.00	445.00	\$ 445.00
	Modification of SMH#1 due to revised elevation										
	- make the opening bigger to fit new 12" pipe size	1	EA	50.00	\$ 50.00	180.00	\$ 180.00	\$ 25.00	\$ 25.00	255.00	\$ 255.00
	Deduct concrete encasement	-6	cy	135.40	\$ (812.40)	35.00	\$ (210.00)	\$ 5.00	\$ (30.00)	175.40	\$ (1,052.40)
	- Deduct Rebars	-240	lbs	0.90	\$ (216.00)	0.90	\$ (216.00)	\$ 0.25	\$ (60.00)	2.05	\$ (492.00)
	Re-survey works from Sta73+48.33 (SMH74) up to Sta 95.83.69 (SMH81)	1	LOT		\$ -	1,500.00	\$ 1,500.00		\$ -	1,500.00	\$ 1,500.00
	Total Direct (Additive & Deductive)				\$ 90,629.62		\$ 16,691.84		\$ 16,386.60		\$ 122,607.86
	Overhead	10%									\$ 12,260.79
	Direct Admin & Supervisory Cost	3%									\$ 3,678.24
	SUB-TOTAL										\$ 138,546.88
	Profit	8%									\$ 11,083.75
	SUB-TOTAL										\$ 149,630.63
	GRT	5.27%									\$ 7,885.53
	TOTAL PROPOSED ADDITIVE COST FOR CCR#19										\$ 157,516.16

ACTIVITY AND LOCATION:		CONSTRUCTION CONTRACT NO.:						DATE:			
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1								7/25/2018			
		ESTIMATED BY:									
CCR#20 Additional Manhole MH71A & MH71B at Rt5 & Rt2A due to unforeseen U/G waterline and Additional Road Restoration Due to TATA U/G cables		BME & SONS, INC						STATUS OF DESIGN:			
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT \$	TOTAL	UNIT \$	TOTAL			UNIT \$	TOTAL
ADDITIVE WORKS											
For Manholes MH71A and MH71B											
	Excavation for new manholes	47.62	CY		\$ -	7.50	\$ 357.16	\$ 15.00	\$ 714.31	22.50	\$ 1,071.47
	Provide 300Psi flowable fill for manhole sub-base	2.25	CY	110.75	\$ 249.03	22.85	\$ 51.38	\$ 5.00	\$ 11.24	138.60	\$ 311.65
	Backfilling and compactions around sewer manholes	45.61	LCY	28.00	\$ 1,277.15		\$ -		\$ -	28.00	\$ 1,277.15
	- Backfill in 12" lift compacted to 10"	36.49	CY		\$ -	5.00	\$ 182.45	\$ 12.00	\$ 437.88	17.00	\$ 620.33
	- Compaction per lift	8	lift		\$ -	25.00	\$ 200.00	\$ 15.00	\$ 120.00	40.00	\$ 320.00
	- Compaction testing per lift	8	EA		\$ -		\$ -	\$ 45.00	\$ 360.00	45.00	\$ 360.00
	- Compaction testing tech stand-by	3	hr		\$ -	55.00	\$ 165.00		\$ -	55.00	\$ 165.00
	Provide precast manholes MH71A										
	- Precast Manhole Base, 4.83' high	1	EA	2,318.00	\$ 2,318.00	250.00	\$ 250.00	\$ 180.00	\$ 180.00	2,748.00	\$ 2,748.00
	- Precast Manhole Cone, 3' high	1	EA	743.65	\$ 743.65	150.00	\$ 150.00	\$ 150.00	\$ 150.00	1,043.65	\$ 1,043.65
	- Concrete grade ring, 6" high, cast in-place	1	EA	150.00	\$ 150.00	250.00	\$ 250.00		\$ -	400.00	\$ 400.00
	- 15" dia Kor-N-Seal	2	EA	126.65	\$ 253.30	50.00	\$ 100.00		\$ -	176.65	\$ 353.30
	- Butyl Joint Sealant	14	LF	2.50	\$ 35.00	5.00	\$ 70.00		\$ -	7.50	\$ 105.00
	- 30" Manhole Frame and cover (used MH frame and cover from MH26)	1	EA		\$ -	180.00	\$ 180.00	\$ 25.00	\$ 25.00	205.00	\$ 205.00
	- Reinforced concrete collar	1	EA	150.00	\$ 150.00	300.00	\$ 300.00	\$ 50.00	\$ 50.00	500.00	\$ 500.00
	- Epoxy concrete liner	94.83	SF	2.35	\$ 222.85	4.00	\$ 379.31		\$ -	6.35	\$ 602.16
	Provide precast manholes MH71B										
	- Precast Manhole Base, 4.83' high (use monolithic base from MH42)	1	EA		\$ -	250.00	\$ 250.00	\$ 180.00	\$ 180.00	430.00	\$ 430.00
	- Precast Manhole Riser, 1' high (use 1ft riser from MH42)	1	EA		\$ -	150.00	\$ 150.00	\$ 150.00	\$ 150.00	300.00	\$ 300.00
	- Precast Manhole Cone, 3' high	1	EA	743.65	\$ 743.65	150.00	\$ 150.00	\$ 150.00	\$ 150.00	1,043.65	\$ 1,043.65
	- Concrete grade ring, 10" high, cast in-place	1	EA	175.00	\$ 175.00	250.00	\$ 250.00		\$ -	425.00	\$ 425.00
	- 15" dia Kor-N-Seal	2	EA	126.65	\$ 253.30	50.00	\$ 100.00		\$ -	176.65	\$ 353.30
	- Butyl Joint Sealant	14	LF	2.50	\$ 35.00	5.00	\$ 70.00		\$ -	7.50	\$ 105.00
	- 30" Manhole Frame and cover (used MH frame and cover from MH42)	1	EA		\$ -	180.00	\$ 180.00	\$ 25.00	\$ 25.00	205.00	\$ 205.00
	- Reinforced concrete collar	1	EA	150.00	\$ 150.00	300.00	\$ 300.00	\$ 50.00	\$ 50.00	500.00	\$ 500.00
	- Epoxy concrete liner	111.53	SF	2.35	\$ 262.10	4.00	\$ 446.13		\$ -	6.35	\$ 708.23
	Provide Manhole Testing for MH71A & MH71B	2	EA		\$ -	250.00	\$ 500.00	\$ 250.00	\$ 500.00	500.00	\$ 1,000.00
	Survey for new location of SMH#71A & SMH#71B and pipe re-alignment from Sta 67+00 to SMH#72	1	LOT		\$ -	1,000.00	\$ 1,000.00		\$ -	1,000.00	\$ 1,000.00
	Additional Paving Demo Works for new MH location										
	Saw-cut portion of AC Pavement	64	LF		\$ -	1.50	\$ 96.00	\$ 0.75	\$ 48.00	2.25	\$ 144.00
	Remove and dispose AC Pavement	14.22	SY		\$ -		\$ -	\$ 8.58	\$ 122.03	8.58	\$ 122.03
	Re-works for installed MH72										

ACTIVITY AND LOCATION:		CONSTRUCTION CONTRACT NO.:						DATE:			
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1								7/25/2018			
ESTIMATED BY:		BME & SONS, INC									
STATUS OF DESIGN:											
CCR#20 Additional Manholes MH71A & MH71B at Rt5 & Rt2A due to unforeseen U/G waterline and Additional Road Restoration Due to TATA U/G cables											
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT \$	TOTAL	UNIT \$	TOTAL			UNIT \$	TOTAL
	Re-excavation works	19.81	CY	\$ -		7.50	\$ 148.61	\$ 15.00	\$ 297.22	22.50	\$ 445.83
	Pull-out of Manhole MH72	1	EA	\$ -		500.00	\$ 500.00	\$ 300.00	\$ 300.00	800.00	\$ 800.00
	Backfilling and compactions around sewer manholes	24.76	LCY	28.00	\$ 693.35					28.00	\$ 693.35
	- Backfill in 12" lift compacted to 10"	19.81	CY	\$ -		5.00	\$ 99.05	\$ 12.00	\$ 237.72	17.00	\$ 336.77
	- Compaction per lift	12	lift	\$ -		25.00	\$ 300.00	\$ 15.00	\$ 180.00	40.00	\$ 480.00
	- Compaction testing per lift	12	EA	\$ -				\$ 45.00	\$ 540.00	45.00	\$ 540.00
	- Compaction testing tech stand-by	3	hr	\$ -		55.00	\$ 165.00			55.00	\$ 165.00
	Additional Precast manhole riser, 2ft high	1	EA	522.20	\$ 522.20					522.20	\$ 522.20
	Re-installation works for MH72	1	EA	\$ -		750.00	\$ 750.00	\$ 500.00	\$ 500.00	1,250.00	\$ 1,250.00
	Additional Butyl Joint Sealant	56	LF	2.50	\$ 140.00	5.00	\$ 280.00			7.50	\$ 420.00
	Additional Epoxy concrete liner	25.12	SF	2.35	\$ 59.03	4.00	\$ 100.48			6.35	\$ 159.51
	Sewer Line C (Rout 2A) - Additional Road Restoration dur to TATA underground cables										
	Additional saw-cutting of existing pavement Sta. 69+40 to Sta 72+00 (260 LF x 3)	780	LF	\$ -		1.50	\$ 1,170.00	\$ 0.75	\$ 585.00	2.25	\$ 1,755.00
	Removal & disposal of existing pavement	347	SY	\$ -				\$ 7.00	\$ 2,429.00	7.00	\$ 2,429.00
	Provide additional 3" thk AC Pavements	347	SY	40.43	\$ 14,029.21	1.00	\$ 347.00			41.43	\$ 14,376.21
	Provide additional 3/4" thk Friction course	347	SY	22.61	\$ 7,845.67					22.61	\$ 7,845.67
	Provide painted line markings	260	LF	1.25	\$ 325.00	1.50	\$ 390.00			2.75	\$ 715.00
	Restoration of existing concrete pavement underneath asphalt pavement										
	3ft x 11ft x 14" thick, 4,000PSI	16	CY	165.00	\$ 2,640.00	35.00	\$ 560.00	\$ 5.00	\$ 80.00	205.00	\$ 3,280.00
	Total Direct (Additive)				\$ 33,272.49		\$ 10,937.57		\$ 8,422.40		\$ 52,632.46
	Overhead	10%									\$ 5,263.25
	Direct Admin & Supervisory Cost	3%									\$ 1,578.97
	SUB-TOTAL										\$ 59,474.68
	Profit	8%									\$ 4,757.97
	SUB-TOTAL										\$ 64,232.65
	GRT	5.27%									\$ 3,385.06
	TOTAL PROPOSED ADDITIVE COST FOR CCR#20										\$ 67,617.72

ACTIVITY AND LOCATION:		CONSTRUCTION CONTRACT NO.:				DATE:					
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1						Wednesday, July 25, 2018					
CCR#21Rev1 Aplacho Bridge Crossing Forcemain Re-alignment due to Snail Issue		ESTIMATED BY:				BME & SONS, INC					
		STATUS OF DESIGN:									
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT \$	TOTAL	UNIT \$	TOTAL			UNIT \$	TOTAL
	Aplacho Bridge Crossing Forcemain Re-alignment										
	Traffic Control										
	Provide additional traffic control along sta 1+80 to sta 3+75										
	- Flagmans, 2-crew	3	Days	\$ -		160.00	\$ 480.00	\$ -		160.00	\$ 480.00
	Provide temporary steel plate	165	LF	\$ -		6.00	\$ 990.00	\$ 3.00	\$ 495.00	9.00	\$ 1,485.00
	Demo and new Works at Aplacho Bridge										
	Setting of hanging platform below bridge, 3-crew x 1day	24	MnHrs	\$ -		10.00	\$ 240.00	\$ -		10.00	\$ 240.00
	Demo portion of concrete diaphragm										
	- 3 Laborers x 5Days, chipping works	120	MnHrs	\$ -		10.00	\$ 1,200.00	\$ -		10.00	\$ 1,200.00
	- Equipment, Genset, chipping hammer, concrete cutter	30	Hrs	\$ -			\$ -	\$ 20.00	\$ 600.00	20.00	\$ 600.00
	Demo works for concrete wall abutment										
	- 4 Laborers x 2Days, chipping works	64	MnHrs	\$ -		10.00	\$ 640.00	\$ -		10.00	\$ 640.00
	- 1 Excavator w/ operator	4	Hrs	\$ -		16.50	\$ 66.00	\$ 70.00	\$ 280.00	86.50	\$ 346.00
	- 1 Dumptruck w/ operator	4	Hrs	\$ -		15.00	\$ 60.00	\$ 45.00	\$ 180.00	60.00	\$ 240.00
	- Equipment, Genset, chipping hammer, concrete cutter	16	Hrs	\$ -			\$ -	\$ 20.00	\$ 320.00	20.00	\$ 320.00
	Provide PVC pipe sleeve for 10" Forcemain Pipe (Approximately 10" Lg)	2	EA	150.00	\$ 300.00	75.00	\$ 150.00	\$ -		225.00	\$ 450.00
	Provide PVC pipe sleeve for 4" Comm line	4	EA	25.00	\$ 100.00	40.00	\$ 160.00	\$ -		65.00	\$ 260.00
	Seal gap between forcemain pipe, comm line and the pipe sleeve at wall abutment only	18.71	LF	3.00	\$ 56.13	5.00	\$ 93.55	\$ -		8.00	\$ 149.68
	Forcemain Line - 3										
	Deduct Trench excavation works	-18.26	CY	\$ -		7.50	\$ (136.94)	\$ 15.00	\$ (273.89)	22.50	\$ (410.83)
	Deduct Selected Fill	-18.26	CY	\$ -		8.00	\$ (146.07)	\$ 5.10	\$ (93.12)	13.10	\$ (239.20)
	Deduct disposal of excavated excess soil	-18.26	CY	\$ -			\$ -	\$ -		-	\$ -
	Deduct 20ft concrete encasement	-2.71	CY	135.40	\$ (367.08)	65.00	\$ (176.22)	\$ 5.00	\$ (13.56)	205.40	\$ (556.86)
	Additional 10" dia x 45bend DI Elbow (Materials only)	2	EA	220.55	\$ 441.10		\$ -	\$ -		220.55	\$ 441.10
	Additional installation for 1ea-10" dia x 45 bend elbow	1	EA	\$ -		75.00	\$ 75.00	\$ -		75.00	\$ 75.00
	Additional Concrete Thrust Block	1	EA	125.00	\$ 125.00	100.00	\$ 100.00	\$ -		225.00	\$ 225.00
	Survey Works	1.00	LOT	\$ -		1,200.00	\$ 1,200.00	\$ -		1,200.00	\$ 1,200.00
	Forcemain Line - 3 Road Repair										
	Additional saw-cutting of AC pavement	330	LF	\$ -		1.50	\$ 495.00	\$ 0.75	\$ 247.50	2.25	\$ 742.50
	Additional removal and disposal of AC pavement	242	SY	\$ -			\$ -	\$ 7.00	\$ 1,694.00	7.00	\$ 1,694.00
	Additional 3" thk Concrete Pavement	242	SY	40.43	\$ 9,784.06	3.00	\$ 726.00	\$ -		43.43	\$ 10,510.06
	Additional 3/4" Friction course	242	SY	22.61	\$ 5,471.62		\$ -	\$ -		22.61	\$ 5,471.62
	Additional AC pavement line markings	242	LF	1.25	\$ 302.50	1.50	\$ 363.00	\$ -		2.75	\$ 665.50
				\$ -			\$ -	\$ -		-	\$ -
	Total Direct (Additive)			\$ 16,213.33		\$ 6,579.31		\$ 3,435.93		\$ 26,228.57	

ACTIVITY AND LOCATION: GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1		CONSTRUCTION CONTRACT NO.:				DATE: Wednesday, July 25, 2018					
CCR#21REv1 Aplacho Bridge Crossing Forcemain Re-alignment due to Snail Issue		ESTIMATED BY: BME & SONS, INC				STATUS OF DESIGN:					
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT \$	TOTAL	UNIT \$	TOTAL			UNIT \$	TOTAL
	Overhead		10%								\$ 2,622.86
	Direct Admin & Supervisory Cost		3%								\$ 786.86
	SUB-TOTAL										\$ 28,638.28
	Profit		8%								\$ 2,371.06
	SUB-TOTAL										\$ 32,009.34
	GRT		4.167%								\$ 1,333.83
	TOTAL PROPOSED ADDITIVE COST FOR CCR#21										\$ 33,343.17

ACTIVITY AND LOCATION:		CONSTRUCTION CONTRACT NO.:				DATE:					
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1						Wednesday, August 08, 2018					
CCR#22 Provide Drainage Pipe on Electrical HandHole to Infiltration System Due to Water Seepage		ESTIMATED BY:				STATUS OF DESIGN:					
		BME & SONS, INC									
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT \$	TOTAL	UNIT \$	TOTAL			UNIT \$	TOTAL
	Provide drainage Pipe from Electrical HandHole to Infiltration due to water seepage										
	Excavation, 18" wide x 3ft deep x 40 ft long	40	LF		\$ -	4.00	\$ 160.00	6.00	\$ 240.00	10.00	\$ 400.00
	Provide 4" PVC drainage pipe	40	LF	3.50	\$ 140.00	4.00	\$ 160.00		\$ -	7.50	\$ 300.00
	Backfilling	40	LF		\$ -	2.00	\$ 80.00	4.00	\$ 160.00	6.00	\$ 240.00
	Compaction	40	LF		\$ -	2.00	\$ 80.00	2.00	\$ 80.00	4.00	\$ 160.00
	Provide pipe penetration on existing handhole	1	EA		\$ -	60.00	\$ 60.00		\$ -	60.00	\$ 60.00
	Seal and restore opening	1	EA	25.00	\$ 25.00	40.00	\$ 40.00		\$ -	65.00	\$ 65.00
	Make Flow Meter Box Water Tight due to water seepage										
	Provide concrete base, 3ft x 3ft x 6" to include concrete, formworks and rebars	1	LOT	100.00	\$ 100.00	150.00	\$ 150.00		\$ -	250.00	\$ 250.00
					\$ -		\$ -		\$ -		\$ -
					\$ -		\$ -		\$ -		\$ -
	Total Direct (Additive)				\$ 265.00		\$ 730.00		\$ 480.00		\$ 1,475.00
	Overhead		10%								\$ 147.50
	Direct Admin & Supervisory Cost		3%								\$ 44.25
	SUB-TOTAL										\$ 1,666.75
	Profit		8%								\$ 133.34
	SUB-TOTAL										\$ 1,800.09
	GRT		4.167%								\$ 75.01
	TOTAL PROPOSED ADDITIVE COST FOR CCR#22										\$ 1,875.10

EXHIBIT B

COST ESTIMATE											
ACTIVITY AND LOCATION:				CONSTRUCTION CONTRACT NO.:					DATE:		
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-2				S15-008 BDN/WW 11-03					August 8, 2018		
CCR#4 - Provide Electronic (LED) Road Sign as required by DPW HEP Department				ESTIMATED BY:					BME & SONS, INC		
				STATUS OF DESIGN:							
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT \$	TOTAL	UNIT \$	TOTAL			UNIT \$	TOTAL
1	Provide electronic (LED) road sign as additional requirement of DPW HEP department, solar powered										
2	- Rental from October 31, 2017 to November 30, 2017	2	EA	\$ -		\$ -		\$ 984.00	\$ 1,968.00	984.00	\$ 1,968.00
3	- Delivery charges	2	EA	\$ -		120.00	\$ 240.00		\$ -	120.00	\$ 240.00
4	- Rental for the month of December 2017	2	EA	\$ -				\$ 984.00	\$ 1,968.00	984.00	\$ 1,968.00
5	- Rental for the month of January 2018	2	EA	\$ -				\$ 984.00	\$ 1,968.00	984.00	\$ 1,968.00
6	- Rental for the month of February 2018	2	EA	\$ -				\$ 984.00	\$ 1,968.00	984.00	\$ 1,968.00
7	- Rental for the month of March 2018	2	EA	\$ -				\$ 984.00	\$ 1,968.00	984.00	\$ 1,968.00
8	- Rental for the month of April 2018	2	EA	\$ -				\$ 984.00	\$ 1,968.00	984.00	\$ 1,968.00
9	- Rental for the month of May 2018	2	EA	\$ -				\$ 984.00	\$ 1,968.00	984.00	\$ 1,968.00
10	- Rental for the month of June 2018	2	EA	\$ -				\$ 984.00	\$ 1,968.00	984.00	\$ 1,968.00
11	- Rental for the month of July 2018	2	EA	\$ -				\$ 984.00	\$ 1,968.00	984.00	\$ 1,968.00
12	- Rental for the month of August 2018	2	EA	\$ -				\$ 984.00	\$ 1,968.00	984.00	\$ 1,968.00
13	- Delivery charges (return)	2	EA	\$ -		120.00	\$ 240.00		\$ -	120.00	\$ 240.00
	Total Direct (Additive)						\$ 480.00		\$ 19,680.00		\$ 20,160.00
	Overhead		10%								\$ 2,016.00
	Direct Admin & Supervisory Cost		3%								\$ 604.80
	SUB-TOTAL										\$ 22,780.80
	Profit		8%								\$ 1,822.46
	SUB-TOTAL										\$ 24,603.26
	GRT		4.167%								\$ 1,025.22
	TOTAL PROPOSED ADDITIVE AMOUNT FOR CCR#12										\$ 25,628.48

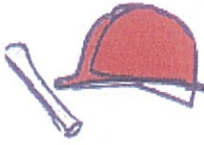
ACTIVITY AND LOCATION:		CONSTRUCTION CONTRACT NO.:						DATE:			
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-2		ESTIMATED BY:						Tuesday, July 31, 2018			
		BME & SONS, INC									
CCR#05 Additive Works - Adjustment on Elevation of Forcemain Pipes from sta134+00 to sta137+80 (Response to RF116) due to existing Storm Drainage Pipe and Install Clean-out in the locations where Pipes are already completely laid out		STATUS OF DESIGN:									
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT \$	TOTAL	UNIT \$	TOTAL			UNIT \$	TOTAL
ADDITIVE WORKS											
REMOVAL WORKS											
1	Re-excavation works of flowble fill (sta134+00 to sta134+80)	41	CY		\$ -	6.00	\$ 248.53	\$ 14.00	\$ 579.91	20.00	\$ 828.41
2	Cut and Removal of laid pipes from sta. 134+00 to sta134+80 (for adjustment)	80	LF		\$ -	10.00	\$ 800.00	\$ 3.00	\$ 240.00	13.00	\$ 1,040.00
NEW WORKS											
3	Provide additional 12" dia C900 PVC pipe replacement	20	LF	28.58	\$ 571.60	12.00	\$ 240.00	\$ 3.00	\$ 60.00	43.58	\$ 871.60
	Note: Existing in-place pipe from sta134+00 to sta 134+80 was re-use, only additional 1-pc length was added to replace the cut pipe.										
4	Provide concrete encase for forcemain pipe from sta. 134+40 to sta. 136+20										
	- 3000Psi Concrete (Based on actual usage)	45	CY	134.80	\$ 6,052.50	25.00	\$ 1,125.00		\$ -	159.50	\$ 7,177.50
	- Reinforcement	0.6	TON	800.00	\$ 480.00	800.00	\$ 480.00		\$ -	1,600.00	\$ 960.00
5	Provide pipe bedding sand t sta. 134+00 to sta. 134+80	19.4	TONS		\$ -	18.00	\$ 349.50		\$ -	18.00	\$ 349.50
	- Note: Re-use bedding sand on site										
6	Provide flowble fill	16.2	CY	110.75	\$ 1,792.00	22.50	\$ 364.06	\$ 5.00	\$ 80.90	138.25	\$ 2,236.96
7	Clean-out adjustment										
	- Re-excavation of Flowable Fill	3.3	CY		\$ -	6.00	\$ 20.00	\$ 14.00	\$ 46.67	20.00	\$ 66.67
	- Cut and remove portion of existing pipe	1	LOT		\$ -	75.00	\$ 75.00		\$ -	75.00	\$ 75.00
	- Provide additional fittings (Dresser Coupling)	1	EA	580.00	\$ 580.00	80.00	\$ 80.00		\$ -	660.00	\$ 660.00
	- Provide flowable fill	3.3	CY	110.75	\$ 365.48	22.50	\$ 74.25	\$ 5.00	\$ 16.50	138.25	\$ 456.23
DEDUCTIVE WORKS											
8	Reduce trench excavation works	-54	CY		\$ -	6.00	\$ (324.00)	\$ 14.00	\$ (756.00)	20.00	\$ (1,080.00)
9	Reduce Bedding sand at sta. 134+60 to sta. 136+20	-52	TONS	35.85	\$ (1,856.23)	18.00	\$ (932.00)		\$ -	53.85	\$ (2,788.23)
	Total Direct (Additive & Deductive)				\$ 7,985.34		\$ 2,600.35		\$ 287.98		\$ 10,853.66
	Overhead	10%									\$ 1,085.37
	Direct Admin & Supervisory Cost	3%									\$ 325.61
	SUB-TOTAL										\$ 12,264.64
	Profit	8%									\$ 981.17
	SUB-TOTAL										\$ 13,245.81
	GRT	4.167%									\$ 551.95
	TOTAL PROPOSED ADDITIVE AMOUNT FOR CCR#05										\$ 13,797.77

COST ESTIMATE											
ACTIVITY AND LOCATION: GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-2				CONSTRUCTION CONTRACT NO.: S15-008 BDNWW 11-03					DATE: Tuesday, July 31, 2018		
CCR#6 - Additive Cost for Hardrock Excavation encountered at Forcemain Sta 126+00 to Sta 127+00				ESTIMATED BY: BME & SONS, INC							
				STATUS OF DESIGN: -							
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT \$	TOTAL	UNIT \$	TOTAL			UNIT \$	TOTAL
	<i>Hardrock Excavations using special mechanized equipment Excavator with Breaker:</i>										
1	Forcemain from Sta 126+00 to Sta 127+00	24	HRS	\$ -		\$ -		\$ 115.00	\$ 2,760.00	115.00	\$ 2,760.00
				\$ -		\$ -		\$ -		-	\$ -
				\$ -		\$ -		\$ -		-	\$ -
				\$ -		\$ -		\$ -		-	\$ -
				\$ -		\$ -		\$ -		-	\$ -
	Total Direct (Additive)			\$ -		\$ -			\$ 2,760.00		\$ 2,760.00
	Overhead	10%									\$ 276.00
	Direct Admin & Supervisory Cost	3%									\$ 82.80
	SUB-TOTAL										\$ 3,118.80
	Profit	8%									\$ 249.50
	SUB-TOTAL										\$ 3,368.30
	GRT	4.167%									\$ 140.36
	TOTAL PROPOSED ADDITIVE AMOUNT FOR CCR#6										\$ 3,508.66

ACTIVITY AND LOCATION: GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-2				CONSTRUCTION CONTRACT NO.:				DATE: Tuesday, July 31, 2018			
CCR#07 Wetwell Additional Excavation and Flowable Fill Due to Unsuitable soil Condition per GEO Field Instructions				ESTIMATED BY: BME & SONS, INC				STATUS OF DESIGN:			
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT \$	TOTAL	UNIT \$	TOTAL			UNIT \$	TOTAL
	Additional Excavation and Flowable Fill										
	<i>Additional excavation works to meet hard stable ground surface as per GEO Field instructions</i>	92.9	CY	\$ -		6.00	\$ 557.49	\$ 14.00	\$ 1,300.81		
	<i>Disposal of excess soil</i>	92.9	CY	\$ -		5.00	\$ 484.50	\$ 7.00	\$ 650.30	20.00	\$ 1,858.32
	<i>Total actual poured flowable fill (see HRP delivery receipts)</i>	135.0	CY	110.75	\$ 14,951.25	22.50	\$ 3,037.50	\$ 5.00	\$ 675.00	138.25	\$ 18,663.72
	<i>Less: Estimated volume per SOP</i>	-41.3	CY	110.75	\$ (4,573.98)	22.50	\$ (929.25)	\$ 5.00	\$ (206.50)	138.25	\$ (5,709.73)
				\$ -		\$ -		\$ -		\$ -	
	Total Direct (Additive)			\$ 10,377.28		\$ 3,130.24		\$ 2,419.61		\$ 15,927.13	
	<i>Overhead</i>	10%									\$ 1,592.71
	<i>Direct Admin & Supervisory Cost</i>	3%									\$ 477.61
	SUB-TOTAL										\$ 17,997.66
	<i>Profit</i>	8%									\$ 1,439.81
	SUB-TOTAL										\$ 19,437.47
	<i>GRT</i>	5.30%									\$ 809.96
	TOTAL PROPOSED ADDITIVE AMOUNT FOR CCR#07										\$ 20,247.43

ACTIVITY AND LOCATION:		CONSTRUCTION CONTRACT NO.:				DATE:					
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-2 CCR#8rev1 ADDITIVE WORKS - Additional AC Pavement due to Relocation of Forcemain Line along sta. 104+80 to sta. 114+91 (As per RFI#06) - Rev.01		ESTIMATED BY:				BME & SONS, INC					
		STATUS OF DESIGN:									
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT \$	TOTAL	UNIT \$	TOTAL			UNIT \$	TOTAL
19	Force Main - 2 Road Repair										
	Provide additional Saw-cutting of existing AC pavements	404	LF		\$ -	1.41	\$ 569.64	0.71	\$ 286.84		
	Remove and dispose affected AC pavements	270	SY		\$ -		\$ -	31.00	\$ 8,370.00	2.12	\$ 856.4
	Provide additional 3" thk pavements at Route 17	270	SY	60.88	\$ 16,437.60		\$ -		\$ -	31.00	\$ 8,370.0
	Provide 1" hot asphalt friction course	270	SY	41.00	\$ 11,070.00		\$ -		\$ -	60.88	\$ 16,437.6
	Provide additional painted line markings	202	LF	1.00	\$ 202.00	1.20	\$ 242.40		\$ -	41.00	\$ 11,070.0
	Temporary Traffic Control								\$ -	2.20	\$ 444.4
	Provide Traffic control										
	- Flagman (1day 4 workers during restoration of pavement)	32	Hrs		\$ -	10.00	\$ 320.00		\$ -	10.00	\$ 320.0
	Total Direct (Additive)				\$ 27,709.80		\$ 1,132.04		\$ 8,656.84		\$ 37,498.4
	Overhead	10%									\$ 3,749.8
	Direct Admin & Supervisory Cost	3%									\$ 1,124.9
	SUB-TOTAL										\$ 42,373.2
	Profit	8%									\$ 3,389.8
	SUB-TOTAL										\$ 45,763.1
	GRT	5.30%									\$ 2,425.4
	TOTAL PROPOSED ADDITIVE AMOUNT FOR CCR										\$ 48,188.5

ACTIVITY AND LOCATION: GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-2			CONSTRUCTION CONTRACT NO.:				DATE: Friday, August 24, 2018				
CCR#09A_ Exterior Wall Painting of PS2 Building			ESTIMATED BY: BME & SONS, INC				STATUS OF DESIGN:				
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT \$	TOTAL	UNIT \$	TOTAL			UNIT \$	TOTAL
	Painting of PS2 Building Exterior Walls:										
	<i>Surface preparation by acid washing. Apply one coat primer and 2 coats of exterior waterbase paint finish on building exterior walls and underside of canopy. Owner to select final color (ONE COLOR Only)</i>	1300	SF			0.60	\$ 780.00	\$ -		0.60	\$ 780.00
	5 gal pail x 300 sf/gal=1500sf/pail; \$110/pail primer	1	pail	110.00	\$ 110.00		\$ -	\$ -		110.00	\$ 110.00
	5 gal pail x 300 sf/gal=1500sf/pail; \$112/pail top coat	2	pails	112.00	\$ 224.00		\$ -	\$ -		112.00	\$ 224.00
	Pick-up and delivery	1	lot	60.00	\$ 60.00		\$ -	\$ -		60.00	\$ 60.00
	Misc (acid, brush, roller stick & cover)	1300	sf	0.05	\$ 65.00		\$ -	\$ -		0.05	\$ 65.00
	Total Direct				\$ 459.00		\$ 780.00	\$ -			\$ 1,239.00
	Overhead	10%						\$ -			\$ 123.90
	Direct Admin & Supervisory Cost	3%									\$ 37.17
	SUB-TOTAL										\$ 1,400.07
	Profit	8%									\$ 112.01
	SUB-TOTAL										\$ 1,512.08
	GRT	5.30%									\$ 80.14
	TOTAL PROPOSED AMOUNT FOR CCR#09A										\$ 1,592.22



BME & SONS INC.

GENERAL CONTRACTOR & EQUIPMENT RENTAL

P.O. Box 24402, GMF, Barrigada, Guam 96921 * Tel: (671) 632-3338 * 637-5498 *
EMAIL: bvm@bmesons.com, dhbme@bmesons.com bernam@bmesons.com

August 7, 2018

To: **Miguel C. Bordallo, PE**
General Manager
Guam Waterworks Authority
688 Route 15, Mangilao GU 96913

Thru: **Rizaldy P. Cortez, PE, PMP, LEED**
SSFM International, Guam General Manager

Reference: Baza Garden Wastewater Cross-Island Pumping and Conveyance (Phase II)
GWA Project No. S15-008-BND

Subject: CCR#10 Provide Valve Box Cover and Riser in ForceMain Hydrotest Valves

Dear Sir,

As requested by GWA, we are pleased to submit our change order cost proposal (CCR#10) to provide valve box cover and riser in 4 gate valves installed and used for hydro testing purposes to include all labor, materials, equipment and supervision in the amount of **Six Thousand Six Hundred Ninety Nine and 66/100 Dollars (\$6,699.66)**.

Performance Period Required: 6 weeks procurement + 2 weeks Installation (56 calendar Days) for the date of NTP.

Thank you and your kind consideration will be greatly appreciated. Should you have any question, please feel free to contact us or email us at above email addresses.

Very Truly Yours,



Digitally signed by Daniel Hernandez
DN: cn=Daniel Hernandez, o=Project
Manager, email=dah@bmesons.com, c=US
Date: 2018.08.07 14:28:51 -1000

Daniel A. Hernandez
BME & Sons, Inc.
Project Manager

ACTIVITY AND LOCATION: **GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-2**

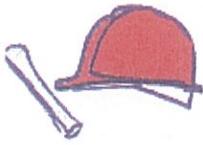
CONSTRUCTION CONTRACT NO. _____ DATE: **Tuesday, August 07, 2018**

ESTIMATED BY: **BME & SONS, INC**

STATUS OF DESIGN: _____

CCR#10 Provide Gate Valve Cover and Riser at 4 each Gate Valves used in Hydro Testing

Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT \$	TOTAL	UNIT \$	TOTAL			UNIT \$	TOTAL
	Provide Gate Valve Cover and Riser: Provide 12" PVC Riser approximately 6 feet long x 4 + 24LF total (needs 2 lengths x 20 ft) - Install PVC Riser approximately 6ft long cover Compaction prior to placing concrete collar and gate valve	2.0	Lengths	668.40 \$	1,336.80	\$	-	\$	-	668.40 \$	1,336.80
	Provide Gate Valve Cover	4.0	EA			100.00 \$	400.00			100.00 \$	400.00
	Provide concrete collar including rebar and formworks, 5ft x 5ft x 6" thick	4.0	EA			50.00 \$	200.00	50.00 \$	200.00	100.00 \$	400.00
		4.0	EA	283.33 \$	1,133.32	100.00 \$	400.00			383.33 \$	1,533.32
		4.0	EA	150.00 \$	600.00	250.00 \$	1,000.00			400.00 \$	1,600.00
						\$	-				-
						\$	-				-
	Total Direct (Additive)			\$	3,070.12	\$	2,000.00	\$	200.00		5,270.12
	Overhead	10%									\$ 527.01
	Direct Admin & Supervisory Cost	3%									\$ 186.10
	SUB-TOTAL										\$ 5,955.24
	Profit	8%									\$ 476.42
	GRT	5.30%									\$ 6,431.65
	TOTAL PROPOSED ADDITIVE AMOUNT FOR CCR#07										\$ 6,699.66



BME & SONS INC.

GENERAL CONTRACTOR & EQUIPMENT RENTAL

P.O. Box 24402, GMF, Barrigada, Guam 96921 * Tel: (671) 632-3338 * 637-5498 *
EMAIL: bvm@bmesons.com, dhbme@bmesons.com bernam@bmesons.com

August 8, 2018

To: **Miguel C. Bordallo, PE**
General Manager
Guam Waterworks Authority
688 Route 15, Mangilao GU 96913

Thru: **Rizaldy P. Cortez, PE, PMP, LEED**
SSFM International, Guam General Manager

Reference: Baza Garden Wastewater Cross-Island Pumping and Conveyance (Phase II)
GWA Project No. S15-008-BND

Subject: CCR#11 Delete 12" PVC Stand Pipe and Valve Box Cover and Install 30" RCP Stand Pipe and Manhole Cover at Plug Valves Locations (2 Each)


Dear Sir,

We are pleased to submit our change order cost proposal (CCR#11) to delete the 12" stand pipe and valve box cover and install 30" RCP stand pipe with 30" sewer manhole cover in order to access the plug valve control lever/handle in the amount of **Three Thousand Eleven and 93/100 Dollars (\$3,011.93)** to include all labor, materials, equipment and supervision.

Performance Period Required: 6 weeks procurement + 2 weeks Installation (56 calendar Days) for the date of NTP.

Thank you and your kind consideration will be greatly appreciated. Should you have any question, please feel free to contact us or email us at above email addresses.

Very Truly Yours,


Digitally signed by Daniel
Hernandez
DN: cn=Daniel Hernandez,
o=Project Manager, ou=BME,
email=dhbme@guam.net,
c=US
Date: 2018.08.08 09:14:36
+10'00'

Daniel A. Hernandez
BME & Sons, Inc.
Project Manager

ACTIVITY AND LOCATION:		CONSTRUCTION CONTRACT NO.		DATE:							
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-2				Tuesday, August 07, 2018							
CCR#11_Provide 30" RCP Pipe Riser and Sewer Manhole Cover in Plug Valve Locations (2 Each)		ESTIMATED BY:		BME & SONS, INC							
		STATUS OF DESIGN:									
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT \$	TOTAL	UNIT \$	TOTAL			UNIT \$	TOTAL
	Provide 30" RCP Pipe Riser and Sewer Manhole Cover in Plug Valve Locations (2 each):										
	Provide 30" RCP Pipe	2	Lengths	1,101.00	\$ 2,202.00					1,101.00	\$ 2,202.00
	- Delivery (from HRP to jobsite)	1	LOT							300.00	\$ 300.00
	- Cut and provide notch to fit installation required (2 man in one day)										
	- Install RCP Riser approximately 6ft long	2	EA			180.00	\$ 360.00				
	Provide concrete collar including rebars and formworks, 5ft x 5ft x 6" thick	2	EA			180.00	\$ 360.00				
	Deduct:										
	- 12" PVC SDR35 Riser x 6ft long	-12	LF	6.27	\$ (75.24)	75.00	\$ (900.00)				
	- 12" Valve Box cover & Frame	-2	EA	168.75	\$ (337.50)	100.00	\$ (200.00)				
	- Concrete Collar, 3ft x 3ft x 6"	-2	EA	75.00	\$ (150.00)	125.00	\$ (250.00)				
	Total Direct (Additive)				\$ 1,939.26		\$ (130.00)		\$ 560.00		\$ 2,369.26
	Overhead										\$ 236.93
	Direct Admin & Supervisory Cost										\$ 71.08
	Profit										\$ 2,677.26
	GRT										\$ 214.18
	TOTAL PROPOSED ADDITIVE AMOUNT FOR CCR#07										\$ 2,891.44
											\$ 120.49
											\$ 3,011.93