

GUAM WATERWORKS AUTHORITY Gloria B. Nelson Public Service Building 688 Route 15 | Mangilao | Guam 96913 Tel. (671)300-6052

Invitation For Bid:IFB-07-ENG-2019
Pressure Zone Realignment Construction- Phase 1
GWA Project No. W18-001-BNDAddendum No.:03Date:November 12, 2019

All Potential Bidders:

This addendum is issued to modify the previously issued bid documents and/or given for informational purposes, and is hereby made a part of the bid documents. Failure to acknowledge receipt of this addendum shall be grounds for the bidder's disqualification and rejection of the bidder's proposal.

1. Drawing Sheet(s) – E-161, E-171, J-002, J-101, J-102, J-103, and J-105 shall be replaced in its entirety with attached Drawing Sheet(s) E-161, E-171, J-002, J-101, J-102, J-103, J-105–Revision 1.

Bidders are also notified to visit GWA website: <u>www.guamwaterworks.org</u> to ensure that all addenda to the bid, answers to questions, and reminders are communicated to all bidders throughout the solicitation process.

MIGUEL C. BORDALO, P.E.

MIGUEL C. BORDAKLO, P.E. General Manager

Attachments

MCB; jm

 THIS WORK INCLUDES: CONDUCTING THOROUGH SITE INVESTIGATION AND IDENTIFY ALL NECESSARY INTERCONNECTION BETWEEN RTU PANEL AND SITE INSTRUMENTATION. COORDINATING ARRANGEMENT, INTERCONNECTION, AND OTHER DETAILS OF THIS PROJECT'S INSTALLATIONS ASSOCIATED WITH THE RTU PANEL AND ANTENNA. COORDINATING AND ADVISE ON MAST LOCATION AND ANTENNA MOUNTING. PROGRAMMING OF THE RTU AND HMI THROUGH DESIGN/REVIEW PROCESS WITH OWNER AS DESCI IN SPECIFICATION. SALVAGE (I.E. REMOVE AND DELIVER TO GWA) THE FOLLOWING: A. EXISTING IP-1 PANEL. B. ANY EXISTING CABLES BETWEEN INSTRUMENTS IDENTIFIED BELOW AND IP-1. REPLACE EXISTING CABLES BETWEEN INSTRUMENTS IDENTIFIED BELOW AND IP-1. REPLACE EXISTING IP-1 PANEL. B. ANY EXISTING IP-1 PANEL. B. ANY EXISTING CABLES BETWEEN INSTRUMENTS IDENTIFIED BELOW AND IP-1. REPLACE BADGER FIT (THE DISPLAY UNIT ONLY), QTY 2, TO HAVE ETHERNET COMMUNICATION. PROVIDE AND INSTALL ALL CABLE AND WIRING NECESSARY TO CONNECT SIGNALS INDICATED BELO SIGNALS REQUIRED FOR LOCAL DISPLAY AND AT THE SUPERVISORY LEVEL FOR THE PRESSURE ZONE REALIGNMENT ARE AS FOLLOWS: TANK NO. 1 LEVEL, FROM HYDRO RANGER LIT TANK 1, VIA RS485 (2-WIRE) WITH STP. TANK NO. 1 LEVEL, FROM HYDRO RANGER LIT TANK 1, VIA RS485 (2-WIRE) WITH STP. TANK NO. 2 LEVEL, FROM ENDRESS HAUSER PIT TANK 2, VIA A:20 mA WITH STP. INLET FLOW GPM, FROM BADGER FIT - DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED. INLET FLOW GPM, FROM BADGER FIT - DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED. INLET FLOW WOTALIZED, FROM BADGER FIT + DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED. OUTLET FLOW GPM, FROM BADGER FIT + DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED. OUTLET FLOW GPM, FROM BADGER FIT + DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED. OUTLET FLOW GPM, FROM BADGER FIT + DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED. OUTLET FLOW GPM, FROM BADG		SCOPE OF WORK
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 REALIGNMENT ARE AS FOLLOWS: TANK NO. 1 LEVEL, FROM HYDRO RANGER LIT TANK 1, VIA RS485 (2-WIRE) WITH STP. TANK NO. 2 LEVEL, FROM HYDRO RANGER LIT TANK 2, VIA RS485 (2-WIRE) WITH STP. TANK NO. 1 LEVEL, FROM ENDRESS HAUSER PIT TANK 1, VIA 4-20 mA WITH STP. TANK NO. 2 LEVEL, FROM ENDRESS HAUSER PIT TANK 2, VIA 4-20 mA WITH STP. INLET FLOW GPM, FROM BADGER FIT + DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED. INLET FLOW TOTALIZED, FROM BADGER FIT + DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED. INLET FLOW TOTALIZED, FROM BADGER FIT - DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED. INLET FLOW TOTALIZED, FROM BADGER FIT - DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED. OUTLET FLOW GPM, FROM BADGER FIT - DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED. OUTLET FLOW GPM, FROM BADGER FIT - DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED. OUTLET FLOW GPM, FROM BADGER FIT - DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED. 	GNALS RE	EQUIRED FOR LOCAL DISPLAY AND AT THE SUPERVISORY LEVEL FOR THE PRESSURE ZONE
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 INLET FLOW GPM, FROM BADGER FIT - DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED. INLET FLOW TOTALIZED, FROM BADGER FIT + DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED. INLET FLOW TOTALIZED, FROM BADGER FIT - DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED. OUTLET FLOW GPM, FROM BADGER FIT + DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED. OUTLET FLOW GPM, FROM BADGER FIT - DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED. OUTLET FLOW GPM, FROM BADGER FIT - DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED. OUTLET FLOW GPM, FROM BADGER FIT - DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED. 	INLE	T FLOW GPM, FROM BADGER FIT + DIRECTION, VIA ETHERNET, CABLE AS SPECIFIED.
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Plot Date: 12 November 2019 - 3:59 PM Plotted by: Joresa Ollet

Cad File No: N:\US\Guam\Projects\111\11182254 GWA Pressure Zone Realignment\06-CAD\Sheets\11182254-PZRC1-E-161.dwg





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Plot Date: 12 November 2019 - 3:58 PM Plotted by: Joresa Ollet Cad File No: N:\US\Guam\Projects\111\1182254 GWA Pressure Zone Realignment\06-CAD\Sheets\11182254-PZRC1-E-171.dwg

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S AUTHORITY	THIS WORK WAS PREPARED BY ME OR DONE UNDER MY DIRECT SUPERVISION	GHD Inc. 865 S Marine Corps Drive, Suite 202 Orlean Pacific Plaza Tamuning 96913 Guam T 671 472 6792 F 671 477 6229 E guam@ghd.com W www.ghd.com	Approved (Project Director) Date Scale AS NOTED	This Drawing for Constructio and Sealed Fo

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	INSTR	UMENT INFORMATION				PLC INTER	RFACE					
ISA PREFI X	LOOP NO.	CONFIGURATION/TYPE	SERVICE OR APPLICATION	LOC.	PLC I/O	I/O TYPE	SIGNAL	RANGE	PWR REQ'D	WIRE / CABLE	DWG No.	COMMENTS/NOTES
LSH	41X	LEVEL SWITCH	VAULT FLOODING	VAULT	Y	DI	24VDC	ON/OFF	n/a	(2)#14AWG	VARIES	
PIT	11X	PRESSURE INDICATING TRANSMITTER	INFLOW PRESSURE	VAULT	Y	AI	4-20mA		LOOP	2/C#16 TSP	VARIES	
ZSH	81X	HATCH OPEN SWITCH	VAULT HATCH OPEN	VAULT	Y	DI	24VDC	ON/OFF	n/a	(2)#14AWG	VARIES	PROVIDE ONLY IN VAULTS WITH HATCH OPENINGS
PIT	21X	PRESSURE INDICATING TRANSMITTER	OUTFLOW PRESSURE	VAULT	Y	AI	4-20mA		LOOP	2/C#16 TSP	VARIES	
			INSTRUMENT LIST / MAT	RIX - GWA	PRESSUF	RE ZONE F	EALIGNMENT	- TYPICAL FLO	WMETER V	/AULT		
	INSTR	UMENT INFORMATION				PLC INTER	RFACE					
ISA PREFI X	LOOP NO.	CONFIGURATION/TYPE	SERVICE OR APPLICATION	LOC.	PLC I/O	I/O TYPE	SIGNAL	RANGE	PWR REQ'D	WIRE / CABLE	DWG No.	COMMENTS/NOTES
LSH	41X	LEVEL SWITCH	VAULT FLOODING	VAULT	Y	DI	24VDC	ON/OFF	n/a	(2)#14AWG	VARIES	
FE	11X	FLOW ELEMENT	FLOW	VAULT	Ν	n/a	n/a	n/a	n/a	MFGR	VARIES	MANUFACTURER CABLE TO FIT
FIT	11X	FLOW INDICATING TRANSMITTER	FLOW	LCP-01 OR FIELD	Y	AI	ETHERNET		24VDC	2/C#16 TSP	VARIES	
ZSH	81X	HATCH OPEN SWITCH	VAULT HATCH OPEN	VAULT	Y	DI	24VDC	ON/OFF	n/a	(2)#14AWG	VARIES	PROVIDE ONLY IN VAULTS WITH HATCH OPENINGS
			INSTRUMENT LIST / MATRI	X - GWA P	RESSURE	ZONE RE	ALIGNMENT -	TYPICAL PRV A	ND METER	R VAULT		
	INSTR	UMENT INFORMATION				PLC INTE	RFACE					
ISA PREFI X	LOOP NO.	CONFIGURATION/TYPE	SERVICE OR APPLICATION	LOC.	PLC I/O	I/O TYPE	SIGNAL	RANGE	PWR REQ'D	WIRE / CABLE	DWG No.	COMMENTS/NOTES
LSH	-	LEVEL SWITCH	VAULT FLOODING	VAULT	Y	DI	24VDC	ON/OFF	n/a	(2)#14AWG	VARIES	
PIT	-	PRESSURE INDICATING TRANSMITTER	INFLOW PRESSURE	VAULT	Y	AI	4-20mA		LOOP	2/C#16 TSP	VARIES	
FE	-	FLOW ELEMENT	FLOW	VAULT	Ν	n/a	n/a	n/a	n/a	MFGR	VARIES	MANUFACTURER CABLE TO FIT
FIT	-	FLOW INDICATING TRANSMITTER	FLOW	LCP-01 OR FIELD	Y	АІ (ETHERNET		24VDC	2/C#16 TSP	VARIES	
ZSH	-	HATCH OPEN SWITCH	VAULT HATCH OPEN	VAULT	Y	DI	24VDC	ON/OFF	n/a	(2)#14AWG	VARIES	PROVIDE ONLY IN VAULTS WITH HATCH OPENINGS
PIT	-	PRESSURE INDICATING TRANSMITTER	OUTFLOW PRESSURE	VAULT	Y	AI	4-20mA		LOOP	2/C#16 TSP	VARIES	

NOTE: 1. ALL I&C CABLE SHALL BE ENCLOSED IN MINIMUM 1" CONDUIT. THE WAY AT THE END OF EACH LOOP NUMBER IS AN ALPHABETI THE "X" AT THE END OF EACH LOOP NUMBER IS AN ALPHABETIC SUFFIX PLACEHOLDER (SUCH AS "A", "B", "C", ETC.). FOR USE AS ENEDED TO UNIQUELY IDENTIFY MULTIPLES OF THE SAME TYPE OF DEVICE COMMUNICATING WITH ANY GIVEN PLC/RTU (I.E. LSH-41A AND LSH 41B)

Image: 1 REVISED FIT SIGNAL TO ETHERNET JO ACS ACS 11/12/19 Image: 1 Image: 1 <t< th=""><th>GUAM WATERWORKS AUTHORITY</th><th>S.R.1 C PEAN SUBSCRIPTICAN NO 1525 CELECTRICAN COMMISSION COMUNICA COMUNIN</th><th>GHD Inc. 865 S Marine Corps Drive, Suite 202</th><th>Drawn JO Drafting EP Approved (Project Director)</th><th>Designer EP Design Check RG</th><th>Client GUAM WATERWORKS AUTHORITY Project PRESSURE ZONE REALIGNMENT CONSTRUCTION - PHASE 1 Title TYPICAL INSTRUMENT LIST</th></t<>	GUAM WATERWORKS AUTHORITY	S.R.1 C PEAN SUBSCRIPTICAN NO 1525 CELECTRICAN COMMISSION COMUNICA COMUNIN	GHD Inc. 865 S Marine Corps Drive, Suite 202	Drawn JO Drafting EP Approved (Project Director)	Designer EP Design Check RG	Client GUAM WATERWORKS AUTHORITY Project PRESSURE ZONE REALIGNMENT CONSTRUCTION - PHASE 1 Title TYPICAL INSTRUMENT LIST
		08/30/19	Orlean Pacific Plaza	Date		
No Revision Note: * indicates signatures on original issue of drawing or last revision of drawing Drawn Job Manager Project Director Date		THIS WORK WAS PREPARED BY ME OR DONE UNDER MY DIRECT SUPERVISION	Tamuning 96913 Guam T 671 472 6792 F 671 477 6229 E guam@ghd.com W www.ghd.com	Scale AS SHOWN	This Drawing shall not be used for Construction unless Signed and Sealed For Construction	Original SizeSht 58 of 62Ansi DDrawing No:J-101Rev: A
Plot Date: 12 November 2019 - 2:03 PM Plotted by: Joresa Ollet Cad File No: N:\US\Guam\Projects\	111\11182254 GWA Pressure Zone Realignment\06-CAD\Sheets\11182254-PZRC1-J-101.dwg					

FINAL SUBMITTAL

	INSTRUMENT AND CONTROL PANEL - BIL	L OF MATERIA	$ALS \langle 10 \rangle$								
ITEM #	DESCRIPTION	MANUF.	PART / CATALOG No. / SERIES								
	NOTE: NOT ALL ITEMS SHOWN BELOW ARE USED IN THIS WORK										
1	PANELS / ENCLOSURES WITH BACK PANELS	HOFFMAN	A603624SSFSN4 (ENCLOSURE)								
		HOFFMAN	A60SP36F3 (INTERIOR PANEL)								
		HOFFMAN	A60P36F1 (REAR PANEL)								
2	120 VAC NON-FUSABLE DISCONNECT SWITCH WITH DOOR INTERLOCK	ABB	OT40F3								
6	120 VAC 15A DUPLEX RECEPTACLE FOR PROGRAMMER USE ONLY	PHOENIX	EM-DUO 120/15								
7	WIREWAY - 1", 2" OR 3" WIDE AS SHOWN, HEIGHT AS REQUIRED	PANDUIT	PANDUCT								
8	PLASTIC / PHENOLIC LABEL; ENGRAVE AS SHOWN		SEE SCHEDULE BELOW								
11	SURGE ARRESTER - TYPE 2 - 120V	BUSSMANN	BSPM1120S2G								
12	120 VAC LED INTERIOR CABINET LIGHT WITH DOOR SWITCH	PHOENIX	PLD E 400 W 250								
	TERMINALS BLOCK / STRIPS $\langle 3 \rangle$										
21	SINGLE LEVEL TERMINAL BLOCK	PHOENIX	UK5								
23	DOUBLE LEVEL TERMINAL BLOCK w/GROUND	PHOENIX	UT4-PE/L/L								
26	FUSED BLOCK - SINGLE LEVEL - 5x20 GMA - 120V INDICATING	PHOENIX	UK5-HESiLA-250								
27	FUSED BLOCK - SINGLE LEVEL - 5x20 GMA - 24VDC INDICATING	PHOENIX	UK5-HESiLED-24								
38	GROUNDING - SINGLE LEVEL	PHOENIX	USKLG 4								
	HANDSWITCH/PUSHBUTTONS/PILOT DEVICES										
75	PILOT LIGHT, STANDARD LENS CAP	A-B	800T-QL10G								
	PROGRAMMABLE LOGIC CONTROLLER										
171	SCADA WIRELESS RADIO $\left< 6 \right>$	ABB TROPOS	2420 W/ AN074580 ANTENNA								
173	5- PORT MANAGED SWITCH	PHOENIX	FL SWITCH 2005								
174	FIREWALL WITH 5- PORT SWITCH	PHOENIX	FL MGUARD RS2005 TX VPN								
175	SCADAPACK 334E W/ 5607 CONTROLLER	SCHNEIDER	334E								
176	UPS 24VDC POWER SUPPLY	PHOENIX	TRIO-UPS-2G/1AC/24DC/10-2907161								
177	MAPLE SYSTEMS HMI - OPERATOR INTERFACE UNIT	MAPLE SYSTEMS	HMI5121XL								
180	UPS BATTERY	PHOENIX	UPS-BATT/VRLA/24DC/38AH								
181	TEMP TRANSMITTER (TIT-01)	PHOENIX	MCR-SL-PT100-01-20-NC								
182	FLOW TRANSMITTER (FIT-01) AS REQUIRED	ENDRESS+HAUSER	PROMAG 400W								

NOTE: NOT ALL ITEMS SHOWN ABOVE ARE USED IN THIS WORK

	LOCAL CONTROL PANEL LABELS - LCP-01									
	LINE 1	LINE 2	LINE 3	LABEL STYLE	LETTER SIZE	INTALLATION SITES				
8a	PANEL LCP-01			В	5	OKKODO, TERAO, AND MAI MAI				
8b	PANEL POWER	24VDC 120VAC		В	6					
8c	MAPLE SYSTEMS	HMI5121XL	INTERFACE	В	6					
8d	120VAC	POWER	CIRCUITS	В	6					
8e	24VDC	POWER	CIRCUITS	В	6					
8f	120VAC	PROGRAMMING	LAPTOP ONLY!	В	6					
				_						

 $\langle 4 \rangle$

T	LOCAL CONTROL PANEL - LABEL SIZE / LETTER SIZE STANDARDS							
	LETTER SIZE	1	2	3	4	5	6	7
	HT. OF LETTERS	1/2"	3/8"	5/16"	1/4"	3/16"	5/32"	1/8"
	LETTERS PER INCH.	2.25	3	3.75	4.5	6.5	7.5	9.5
STYLE	SIZE (Nom.)		MA	XIMUM	NUMBER	R OF LIN	ES	-
Α	[3"w x 1.5"h]	2	3	3	4	4	5	5
В	[2.5"w x 1"h]	1	1	2	2	3	3	4
С	[2"w x 3/4"h]	1	1	1	2	2	3	3
D	[1.5"w x 1/2"h]		1	1	1	1	1	2
Е	[1"w x 1/2"h]		1		1	1	1	2
STYLE	SIZE (Nom.)		MAXI	мим сн	ARACTE			-
A	[3"w x 1.5"h]	5	7	9	11	16	18	22
В	[2.5"w x 1"h]	4	6	7	9	13	15	19
С	[2"w x 3/4"h]	3	4	5	6	9	11	14
D	[1.5"w x 1/2"h]			3	4	6	7	9
E	[1"w x 1/2"h]			2	2	3	3	4
LETTER	SIZE	1	2	3	4	5	6	7

Т	O PLC/RT	Ū		
FI	ROM PLC	/RTU	-	

1	REVISION 1	JO	ACS	ACS	11/12/19	
						GUANI WATERWOR
No	Revision Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date	

Plot Date: 12 November 2019 - 2:21 PM Plotted by: Joresa Ollet

Cad File No: N:\US\Guam\Projects\111\11182254 GWA Pressure Zone Realignment\06-CAD\Sheets\11182254-PZRC1-J-102.dwg

ITEM #	DESCRIPTION	MANUF.	PART / CATALOG No. / SERIES
	NOTE: NOT ALL ITEMS SHOWN BELOW ARI	E USED IN THIS W	JRK
1	PANELS / ENCLOSURES WITH BACK PANELS	HOFFMAN	A603612LP / A60P36
2	120 VAC NON-FUSABLE DISCONNECT SWITCH WITH DOOR INTERLOCK	ABB	OT40F3
6	120 VAC 15A DUPLEX RECEPTACLE FOR PROGRAMMER USE ONLY	PHOENIX	EM-DUO 120/15
7	WIREWAY - 1", 2" OR 3" WIDE AS SHOWN, HEIGHT AS REQUIRED	PANDUIT	PANDUCT
8	PLASTIC / PHENOLIC LABEL; ENGRAVE AS SHOWN		SEE SCHEDULE BELOW
10	FAN (WITH FINE MESH INSECT SCREEN)		120VAC
11	SURGE ARRESTER - TYPE 2 - 120V	BUSSMANN	BSPM1120S2G
12	120 VAC LED INTERIOR CABINET LIGHT WITH DOOR SWITCH	PHOENIX	PLD E 400 W 250
	TERMINALS BLOCK / STRIPS $\langle 3 \rangle$		
21	SINGLE LEVEL TERMINAL BLOCK	PHOENIX	UK5
23	DOUBLE LEVEL TERMINAL BLOCK w/GROUND	PHOENIX	UT4-PE/L/L
26	FUSED BLOCK - SINGLE LEVEL - 5x20 GMA - 120V INDICATING	PHOENIX	UK5-HESiLA-250
27	FUSED BLOCK - SINGLE LEVEL - 5x20 GMA - 24VDC INDICATING	PHOENIX	UK5-HESiLED-24
38	GROUNDING - SINGLE LEVEL	PHOENIX	USKLG 4
	HANDSWITCH/PUSHBUTTONS/PILOT DEVICES		
75	PILOT LIGHT, STANDARD LENS CAP	A-B	800T-QL10G
	PROGRAMMABLE LOGIC CONTROLLER		
171	SCADA WIRELESS RADIO $\langle 6 \rangle$	ABB TROPOS	2420 W/ AN074580 ANTENNA
173	5-PORT MANAGED SWITCH	PHOENIX	FL SWITCH 2005
174	FIREWALL WITH 5-PORT SWITCH	PHOENIX	FL MGUARD RS2005 TX VPN-2701
175	SCADAPACK 334E W/ 5607 CONTROLLER	SCHNEIDER	334E
176	UPS 24 VDC POWER SUPPLY	PHOENIX	TRIO-UPS-2G/1AC/24DC/10-29071
177	MAPLE SYSTEMS HMI - OPERATOR INTERFACE UNIT	MAPLE SYSTEMS	HMI5121XL
179	SCADAPACK 334E TO HMI5121XL RJ45 TO DE9S NULL MODEM CABLE	SCHNEIDER	TBUM297241
180	UPS BATTERY	PHOENIX	UPS BATT/VRLA/24DC/38AH

	LOCAL					
	LINE 1	LINE 2	LINE 3	LABEL STYLE	LETTER SIZE	
8a	PANEL LCP-01			В	5	CARNATION, YSENGSONG, CLARA, KAISER, YIGO, AND ASTUMBO
8b	PANEL POWER	24VDC 120VAC		В	6	
8c	MAPLE SYSTEMS	HMI5121XL	INTERFACE	В	6	
8d	120VAC	POWER	CIRCUITS	В	6	
8e	24VDC	POWER	CIRCUITS	В	6	
8f	120VAC	PROGRAMMING	LAPTOP ONLY!	В	6	
				$\overline{4}$		

LOCAL CONTROL PANEL - LABEL SIZE / LETTER SIZE STANDARDS										
	LETTER SIZE	1	2	3	4	5	6	7		
	HT. OF LETTERS	1/2"	3/8"	5/16"	1/4"	3/16"	5/32"	1/8"		
	LETTERS PER INCH.	2.25	3	3.75	4.5	6.5	7.5	9.5		
STYLE	SIZE (Nom.)	MAXIMUM NUMBER OF LINES								
А	[3"w x 1.5"h]	2	3	3	4	4	5	5		
В	[2.5"w x 1"h]	1	1	2	2	3	3	4		
С	[2"w x 3/4"h]	1	1	1	2	2	3	3		
D	[1.5"w x 1/2"h]		1	1	1	1	1	2		
E	[1"w x 1/2"h]		1		1	1	1	2		
STYLE	SIZE (Nom.)	MAXIMUM CHARACTERS PER LINE								
А	[3"w x 1.5"h]	5	7	9	11	16	18	22		
В	[2.5"w x 1"h]	4	6	7	9	13	15	19		
С	[2"w x 3/4"h]	3	4	5	6	9	11	14		
D	[1.5"w x 1/2"h]			3	4	6	7	9		
E	[1"w x 1/2"h]			2	2	3	3	4		
LETTER	SIZE	1	2	3	4	5	6	7		

TO PLC/RTU

FROM PLC/RTU

1	REVISION 1	JO	ACS	ACS	11/12/19	
						GUAM WATERWOR
No	Revision Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date	

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		EQUIPMEN	NT LIST				
	ITEM NO.	QUANTITY	DESCR	PTION			
	\bigcirc	1 RADIO					
			VER SUPPLY				
			\frown		FS		
	1. TH CC RE	E CONTROL PANELS ANI INTRACT AND ARE CONS PRESENTATIVE. REVIEV	D RTU'S AT ASTU IDERED AS EXIS V AS-BUILTS, PEP	MBO AND YIGO RE FING IN THIS PROJ RFORM SITE INVES	SERVOIRS ARE INST IECT. THE LAYOUT O STIGATIONS, AND CC	ALLED UNDER A SE N THIS DRAWING IS ORDINATE. THE CO	
	PR 2. UN	ODUCT INFORMATION, A LESS NOTED OTHERWIS	NED LATOUTS P ND BILLS OF MA E, BOLD ITEMS S	FERIALS. SEE NOT HALL BE FURNISH	ES ON SHEETS E-16' ED AND INSTALLED I	I AND E-171. JNDER THIS CONTR	ACT
						\mathbf{N}	
							
esigner FP	Client	GUAM WA	TERWO	RKS AU	FINAL	20RMI	IIAC
esign neck RG	Project Title	PRESSURE			ENT CONS		- PHASE 1
		RESERVOI	RS	IF-I AI /	-3 I UIVIBU		U
This Drawing shall not be use for Construction unless Signe and Sealed For Construction	d Original Size	Drawing No:	J-10	5		Sht	62 ₀r 62 Rev:

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