Grand Island, Nebraska
Grand Island WWTP
Headworks Improvements

City Project WWTP–2013–1
B&V PN 175144
OA PN 011-2347

ADDENDUM NO. 2
April 19, 2013

A. SCOPE

This Addendum No. 2 consists of pages AD2-1 through AD2-7 and attachments. This addendum covers the following clarifications, additions, or changes to the specifications and drawings previously issued. Attachments to Addendum No. 2 include the following:

- Revised Section 13530A, Page 3
- Equipment Schedule 13570-S02 – Wall Mounted Cabinets
- Figure AD2-1: Revisions to Drawing AI8

Attachments to this addendum that are not part of the Contract Documents but are solely for the bidders' information include:

- Attachment 01015B: Preselected Equipment Proposal, Section 13530 – Programmable Logic Controllers
- Attachment 01015C: Preselected Equipment Proposal, Section 16150 – Adjustable Frequency Drives
- Planholders List

B. SPECIFICATIONS

1. SECTION 01015 – PROJECT REQUIREMENTS

   Page 01015-15. Replace the corresponding preselected equipment attachment fly sheet with the following attached proposal: "Attachment 01015B: Preselected Equipment Proposal, Section 13530 – Programmable Logic Controllers".

   Page 01015-15. Replace the corresponding preselected equipment attachment fly sheet with the following attached proposal: "Attachment 01015C: Preselected Equipment Proposal, Section 16150 – Adjustable Frequency Drives".

2. SECTION 03350 – CONCRETE PLACING, FINISHING, AND CURING

Page 03350-9, Article 3-9.02. Delete "Not used." from this article and replace with the following.

"At the Grit Facility, all interior and exterior concrete formed surfaces exposed to view after construction shall be finished by grout cleaning, including painted surfaces but excluding urethane lined surfaces. At the Flow Distribution Structure, all exterior concrete formed surfaces exposed to view after construction shall be finished by grout cleaning. Grout-cleaned finishes shall conform to Paragraph 5.3.3.4.b. of ACI 301. Grout cleaning shall not result in an overall plastering of the concrete surfaces, but shall produce a smooth, uniform surface free of marks, voids, surface glaze, and cement dust. Grout cleaning for concrete surfaces that require crack repair shall be properly prepared and finished to match adjacent concrete surfaces."

3. SECTION 11122 – HORIZONTAL END SUCTION CENTRIFUGAL PUMPS – GRIT PUMPS

Page 11122-4, Article 2-2. Revise the "Rated Head." value to "13* feet".

Page 11122-4, Article 2-2. Revise the "Operating head range for full speed continuous operation." value to "12 to 14* feet".

Page 11122-4, Article 2-2. Revise the "Minimum shutoff head." value to "18 ft".

Page 11122-4, Article 2-2. Revise the "Maximum pump speed." value to "750 rpm".

Page 11122-4, Article 2-2. Revise the "Maximum power required at pump input shaft at any point from minimum operating head to shutoff heat at rated speed." value to "4.5* (water), 6.5* (grit) bhp".

Page 11122-4, Article 2-2. Revise the "Maximum motor speed." value to "1200 rpm".

Page 11122-4, Article 2-2. Revise the "Motor nameplate rating." value to "7.5* hp".

Page 11122-5, Article 2-2. Revise the "Minimum pump suction nozzle size." value to "3 in".

Page 11122-5, Article 2-2. Revise the "Minimum pump discharge nozzle size." value to "3 in".

4. SECTION 11150 – SUBMERSIBLE PUMPS

   Page 11150-6, Article 2-3. Revise the "Impeller" material requirements to "…Stainless steel, ASTM A487, Brinell 220+…".

   Page 11150-9, Article 2-4.07.03. Delete the last sentence of this article and replace with the following.

   "Each pumping unit shall be provided with positive retrieval to the top of the pump."

5. SECTION 11155 – SUBMERSIBLE WELL PUMPS

   Page 11155-10, Article 2-7.01. Revise the seventh paragraph of this article to read as follows.

   "Submersible motors shall be water-filled with a water soluble, non-toxic solution suitable for use in submersible motors in potable water pumping applications. The solution shall be continuously circulated throughout the motor for cooling and rotor, stator, and bearings. The motors shall have a pressure balancing system which shall maintain a pressure balance between the internal and external fluids, as recommended by the manufacturer."

6. SECTION 11325 – SCREENINGS WASHER/COMPACTOR EQUIPMENT

   Page 11325-7, Article 2-4.03. Delete the first sentence of this article in its entirety.

   Page 11325-7, Article 2-4.03. Add the following to the end of this article.

   "The washing/compactor equipment unit shall include a means of cleaning the screw housing drain plate during automatic operation."

   Page 11325-9, Article 2-4.09. Delete "Hollow" from the title of this article.

   Page 11325-9, Article 2-4.09. In the first sentence of this article revise "3/4" to "1/2".

   Page 11325-9, Article 2-4.09. Delete the last sentence of this article in its entirety.

7. SECTION 13500A – DEVICE SCHEDULE

   For Tag LT-0025-02, change the device type from "ULTRASONIC LEVEL INDICATOR" to "SUBMERSIBLE PRESSURE TRANSDUCER".

8. SECTION 13530A – APPENDIX A – I/0 SCHEDULE

   Delete Page 13530A-3 of this section in its entirety and replace with the attached "Revised Section 13530A, Page 3".

9. SCHEDULE 13570-S02 – WALL MOUNTED CABINETS

   Page 13570-S02-1. Replace this schedule with the attached "Equipment Schedule 13570-S02 – Wall Mounted Cabinets".

10. SECTION 15061 – DUCTILE IRON PIPE (DIP)

    Page 15061-8, Article 2-2. Revise the size range for "Restrained Mechanical Joints. (field cut spigot)" to "(4 inch through 36 inch)".

11. SECTION 15500 – HEATING, VENTILATING, AND AIR CONDITIONING

    Page 15500-26, Article 2-4.18.11. Delete the third paragraph of this article in its entirety and replace with the following.

    "Conduit for all HVAC control circuits in exposed indoor locations shall be furnished and installed under this section. Conduit type shall be as specified in the Electrical section."

C. DRAWINGS

1. Drawing AE2, Sheet 8 of 206. Reference MCC29 circuit "B9" serving "ODOR CONTROL FAN OCF-7010-01". Revise the breaker to "70A 3P".

2. Drawing AE3, Sheet 9 of 206. Reference MCC29 circuit "A6" serving "GRIT PUMP P-8115-02". Revise the motor horsepower to "7.5".

3. Drawing AE3, Sheet 9 of 206. Reference MCC29 circuit "B7" serving "GRIT PUMP P-8115-01". Revise the motor horsepower to "7.5".

4. Drawing AI8, Sheet 20 of 206. Revise this drawing as shown in the attached "Figure AD2-1".

5. Drawing BE2, Sheet 89 of 206. Reference "DUCT BANK 'B' CONDUIT & WIRE SCHEDULE" CONDUIT NO. "B20". Revise "EQUIPMENT" to "RTU-17".

6. Drawing BE2, Sheet 89 of 206. Reference "DUCT BANK 'C' CONDUIT & WIRE SCHEDULE" CONDUIT NO. "C6". Revise conductors for "G-2101-01", "G-2101-02", and "G-2101-03" to "10#14".

7. Drawing BE2, Sheet 89 of 206. Reference "DUCT BANK 'C' CONDUIT & WIRE SCHEDULE", CONDUIT NO. "C7". Delete conductors associated with equipment "G-2101-01", "G-2101-02", and "G-2101-03" from this conduit.

8. Drawing DM1, Sheet 127 of 206. Revise the callout to the dismantling joint on the grit pump suction to "3" DMJ (TYP) (SEE NOTE 5)".

9. Drawing DM1, Sheet 127 of 206. Delete Note 5 in its entirety and replace with the following.

   "5. CONNECT DMJ TO 6" GROOVE x 3"FLANGE REDUCER. PROVIDE 6" GROOVED SPOOL PIECE AS REQUIRED TO COMPLETE INSTALLATION."

10. Drawing DM3, Sheet 129 of 206. Revise the callout to the dismantling joint on the grit pump discharge to "3" DMJ (TYP) (SEE NOTE 3)".

11. Drawing DM3, Sheet 129 of 206. Delete Note 3 in its entirety and replace with the following.

    "3. CONNECT DMJ TO 6" GROOVE x 3" FLANGE REDUCER. PROVIDE 6" GROOVED SPOOL PIECE AS REQUIRED TO COMPLETE INSTALLATION."

12. Drawing DM3, Sheet 129 of 206. Reference Section 4. Revise the tee callout to "8"x4" TEE (SEE NOTE 4)".

13. Drawing DM3, Sheet 129 of 206. Add Note 4 to the drawing as follows.

    "4. PROVIDE 4" GROOVED DIP TO A 4" GROOVED x 3" FLANGED REDUCER AT ECC PLUG VALVE V-8125-02-04."

14. Drawing DE1, Sheet 132 of 206. Revise the motor horsepower for grit pump "P-8115-01" to "7.5".

15. Drawing DE1, Sheet 132 of 206. Revise the motor horsepower for grit pump "P-8115-02" to "7.5".

16. Drawing DE4, Sheet 135 of 206. Reference the schedule for "MCC28", circuit "A6" serving "P-8115-02". Revise the "LOAD KVA" to "9.1".

17. Drawing DE4, Sheet 135 of 206. Reference the schedule for "MCC28", circuit "B7" serving "P-8115-01". Revise the "LOAD KVA" to "9.1".

18. Drawing KI1, Sheet 200 of 206. Revise the title of gate "G-4505-01" to "BAR SCREEN 1 ISOLATION GATE G-4505-01"

19. Drawing KI1, Sheet 200 of 206. Revise the title of gate "G-4505-02" to "BAR SCREEN 2 ISOLATION GATE G-4505-02"

20. Drawing KI1, Sheet 200 of 206. Revise the title of gate "G-4505-03" to "INFLUENT J-BOX TIE GATE G-4505-03"

21. Drawing KI4, Sheet 203 of 206. Reference Primary Clarifier RTU-07 (PLC-2). Revise "Distribution Gate 1 (Primary Clarifier 1) G-2101-01", "Distribution Gate 2 (Primary Clarifier 2) G-2101-02", and "Distribution Gate 3 (Primary Clarifier 3) G-2101-03" to have one (1) circuit as follows: "10#14, 3/4"C".

D. GENERAL CLARIFICATIONS AND COMMENTS

1. Mass Concrete Locations. Question: What items on this project are classified as mass concrete? If you indicated this somewhere on the drawings or in the spec's please let me know where it is.

   Answer: Mass concrete is shown on Section 1, Drawing CS5 for the 3'-5" thick concrete wall between the Junction Box and Screen Channel from elevation 1812.0 to 1823.0. Construction joints for this wall are indicated on Drawings CS1, CS2, and CS5.

2. Concrete Forming Requirements. Question: Spec section 3100 pg.2 says exposed concrete will require forming with plywood panels or lining forms with plywood. We own Symons pans that are a high grade plywood with a steel frame. The form panels come 2' wide & various heights. Can this form be used for such work or will you require them to lined with large sheets of plywood?

   Answer: Forms for surfaces exposed to view after construction shall comply with Section 2-2 of specification 03100. All prefabricated forms including those constructed of prefabricated plywood shall be lined with plywood or fiberboard. The purpose is to reduce the number of exposed joints to improve the appearance of the visible cast-in-place concrete walls.

3. Mechanical Connectors. Question: You show mechanical rebar splices at a number of joints for the Pump Station. You also have note 2 on drawing CS1 which says Mechanical splices may be used at the Contractor's option. May we us the mechanical splices where we please or do we have to use them where you have them shown?

   Answer: Drawings CS1and CS2 indicate vertical wall construction joint locations and Note 2, Drawing CS1 is intended to provide the Contractor the option of using mechanical connectors at these locations as provided by the Typical Details. Where mechanical connectors are shown on the Drawings, they must be used in those

locations. All concrete reinforcement splices and mechanical connections shall comply with Section 2-2 of specification 03200 and shall be submitted for review by the Engineer.

4. Raw Wastewater Pump Station Wet Well Platforms. Question: On drawing CS2 you show a concrete walk @ Elev. 1818 in the wet wells of the pump station. The cuts for the elevated walk show it resting on a corbel at one end & mechanical spliced to the wall on the other end. Can we have the walk rest on a corbel at both ends?

   Answer: No the concrete walkway must be provided with a corbel on only one end.

5. Cast-in-Place Concrete Beam Connections. Question: On drawing CS3 notes 4&5 talk about beam pockets in the wall for Beam BC-101. Is this the only beam that will require these pockets?

   Answer: All construction joints shall comply with Article 3-1, Section 03250. Concrete beams shall be cast monolithically with concrete slabs and beam pockets shall be provided by the Contractor at all locations where beams intersect a wall. Provision for transfer of shear and other forces through construction joints and beam pockets shall be acceptable to the Engineer. Notes were added for BC-101 to specifically indicate the specified requirements because it should be constructed as a beam, not a wall, even though it's 48" deep.

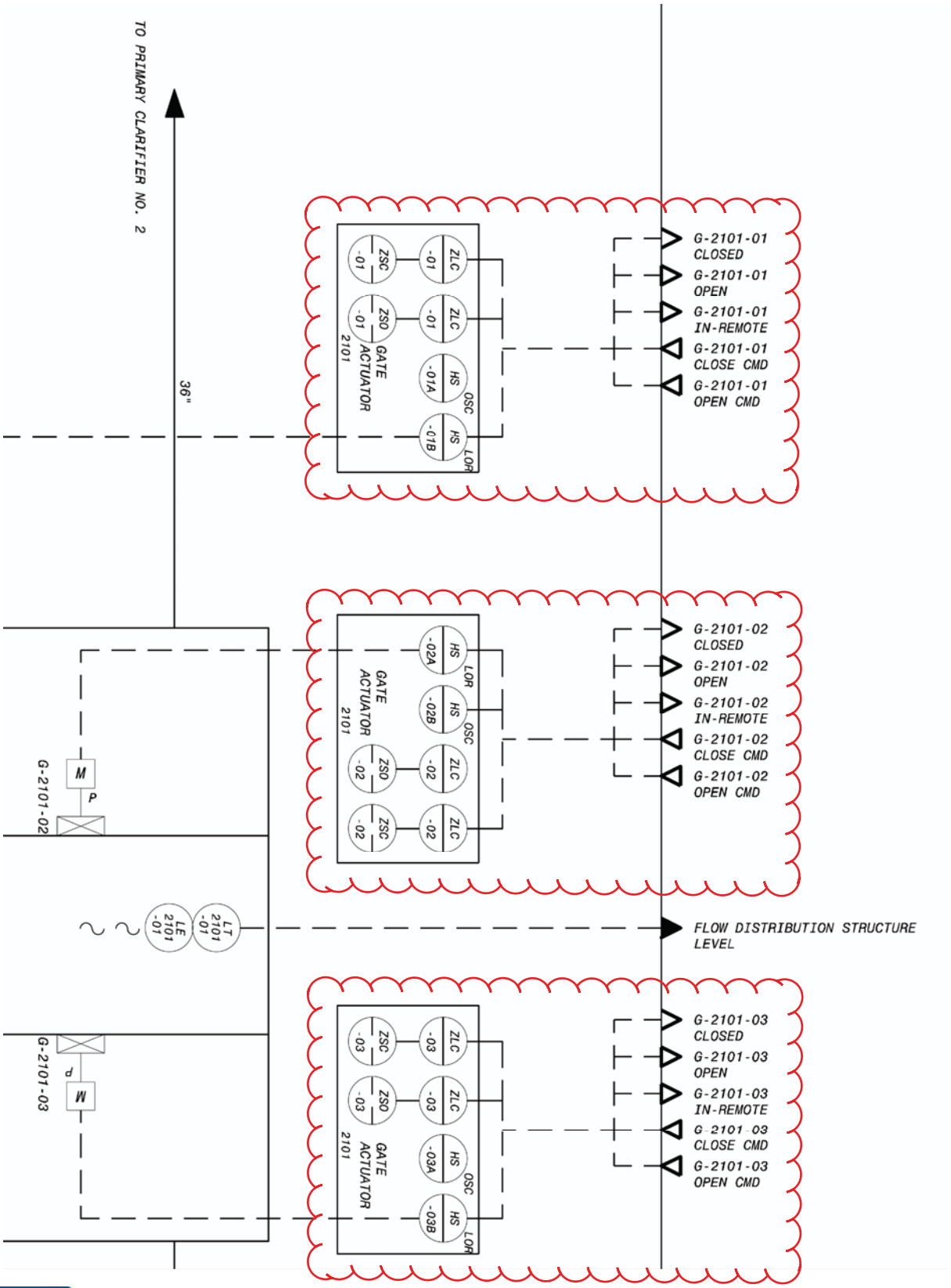
Acknowledge receipt and acceptance of this addendum in the appropriate space on the Bid Form.

Equip ID	RTU	PLC	Type	Description	AnaSigLvl	AnaSigPwr	Surge	DigSigLvl	DigONState	DigOFFState	Remarks1	Remarks2
V-0025-11	RTU-16	PLC-4	DO	SUPPLY FORCE MAIN 2 VALVE OPEN CMD				120 VAC				
LCP-0030-01	RTU-16	PLC-4	DO	ATS29A ENGINE GENERATOR RUN COMMAND				120 VAC				
LCP-0030-01	RTU-16	PLC-4	DO	ATS29B ENGINE GENERATOR RUN COMMAND				120 VAC				
FIT-2101-01	RTU-17	PLC-4	AI	JBS FLOW	4-20 mADC	FIELD	YES					
SMP-2101-01	RTU-17	PLC-4	AO	JBS FLOW TO COMPOSITE SAMPLER	4-20 mADC	PLC	YES					
SMP-8105-01	RTU-17	PLC-4	AO	RAW WASTEWATER FLOW TO COMPOSITE SAMPLER	4-20 mADC	PLC	YES					
FIT-0025-01	RTU-17	PLC-4	AO	SUPPLY FORCE MAIN 1 FLOW TO GRIT SYSTEM 1	4-20 mADC	PLC	YES					
FIT-0025-02	RTU-17	PLC-4	AO	SUPPLY FORCE MAIN 2 FLOW TO GRIT SYSTEM 1	4-20 mADC	PLC	YES					
FIT-0025-01	RTU-17	PLC-4	AO	SUPPLY FORCE MAIN 1 FLOW TO GRIT SYSTEM 2	4-20 mADC	PLC	YES					
FIT-0025-02	RTU-17	PLC-4	AO	SUPPLY FORCE MAIN 2 FLOW TO GRIT SYSTEM 2	4-20 mADC	PLC	YES					
G-8105-03	RTU-17	PLC-4	DI	GRIT BASIN TIE GATE CLOSED				120 VAC	CLOSED			
G-8105-03	RTU-17	PLC-4	DI	GRIT BASIN TIE GATE IN REMOTE				120 VAC	REMOTE			
G-8105-03	RTU-17	PLC-4	DI	GRIT BASIN TIE GATE OPEN				120 VAC	OPEN			
LCP-7010-02	RTU-17	PLC-4	DI	GRIT FACILITY ODOR CONTROL FAN 1 FAIL				120 VAC		FAIL		
LCP-7010-02	RTU-17	PLC-4	DI	GRIT FACILITY ODOR CONTROL FAN 1 RUNNING				120 VAC	RNNG			
LSH-8125-01	RTU-17	PLC-4	DI	GRIT PUMP ROOM FLOOD				120 VAC		FLOOD		
FIT-2101-01	RTU-17	PLC-4	DI	JBS FLOW PULSE				120 VAC	PULSE			
LSH-2101-03	RTU-17	PLC-4	DI	JBS METER VAULT FLOOD				120 VAC		FLOOD		
RTU-17-PS1OK	RTU-17	PLC-4	DI	RTU-17 24VDC POWER SUPPLY 1 OK				120 VAC		FAIL		
RTU-17-PS2OK	RTU-17	PLC-4	DI	RTU-17 24VDC POWER SUPPLY 2 OK				120 VAC		FAIL		
RTU-17-UPS-FAIL	RTU-17	PLC-4	DI	RTU-17 UPS FAIL				120 VAC		FAIL		
RTU-17-UPS-BATT	RTU-17	PLC-4	DI	RTU-17 UPS ON BATTERIES				120 VAC		BATT		
LCP-8125-01	RTU-17	PLC-4	DI	GRIT BASIN 1 INFLUENT GATE FULL OPEN (FROM PLC-GRIT)				120 VAC	OPEN			
LCP-8125-02	RTU-17	PLC-4	DI	GRIT BASIN 2 INFLUENT GATE FULL OPEN (FROM PLC-GRIT)				120 VAC	OPEN			
G-8105-03	RTU-17	PLC-4	DO	GRIT BASIN TIE GATE CLOSE CMD				120 VAC				
G-8105-03	RTU-17	PLC-4	DO	GRIT BASIN TIE GATE OPEN CMD				120 VAC				
LIT-2101-01	RTU-07	PLC-2	AI	DISTRIBUTION STRUCTURE LEVEL	4-20 mADC	FIELD	YES				USE NEW INPUT 7.0	NEW ANALOG INPUT MODULE SLOT 7
~~G-2101-01~~	~~RTU-07~~	~~PLC-2~~	~~AI~~	~~DISTRIBUTION STRUCTURE PC-1 GATE POSITION FEEDBACK~~	~~4-20 mADC~~	~~FIELD~~	~~YES~~				~~USE NEW INPUT 7.1~~	~~NEW ANALOG INPUT MODULE SLOT 7~~
~~G-2101-02~~	~~RTU-07~~	~~PLC-2~~	~~AI~~	~~DISTRIBUTION STRUCTURE PC-2 GATE POSITION FEEDBACK~~	~~4-20 mADC~~	~~FIELD~~	~~YES~~				~~USE NEW INPUT 7.2~~	~~NEW ANALOG INPUT MODULE SLOT 7~~
~~G-2101-03~~	~~RTU-07~~	~~PLC-2~~	~~AI~~	~~DISTRIBUTION STRUCTURE PC-3 GATE POSITION FEEDBACK~~	~~4-20 mADC~~	~~FIELD~~	~~YES~~				~~USE NEW INPUT 7.3~~	~~NEW ANALOG INPUT MODULE SLOT 7~~
G-2101-04	RTU-07	PLC-2	AI	DISTRIBUTION STRUCTURE PC-4 GATE POSITION FEEDBACK	4-20 mADC	FIELD	YES				USE NEW INPUT 7.4	NEW ANALOG INPUT MODULE SLOT 7
~~G-2101-01~~	~~RTU-07~~	~~PLC-2~~	~~AO~~	~~DISTRIBUTION STRUCTURE PC-1 GATE POSITION COMMAND~~	~~4-20 mADC~~	~~FIELD~~	~~YES~~				~~USE SPARE INPUT 8.2, FIELD VERIFY TERMINALS~~	
~~G-2101-02~~	~~RTU-07~~	~~PLC-2~~	~~AO~~	~~DISTRIBUTION STRUCTURE PC-2 GATE POSITION COMMAND~~	~~4-20 mADC~~	~~FIELD~~	~~YES~~				~~USE SPARE INPUT 8.3, FIELD VERIFY TERMINALS~~	
~~G-2101-03~~	~~RTU-07~~	~~PLC-2~~	~~AO~~	~~DISTRIBUTION STRUCTURE PC-3 GATE POSITION COMMAND~~	~~4-20 mADC~~	~~FIELD~~	~~YES~~				~~USE SPARE INPUT 8.4, FIELD VERIFY TERMINALS~~	
G-2101-04	RTU-07	PLC-2	AO	DISTRIBUTION STRUCTURE PC-4 GATE POSITION COMMAND	4-20 mADC	FIELD	YES				USE SPARE INPUT 8.5, FIELD VERIFY TERMINALS	
G-2101-01	RTU-07	PLC-2	DI	DISTRIBUTION STRUCTURE PC-1 GATE IN REMOTE				120 VAC	REMOTE		USE SPARE INPUT 2.16, TERMINALS 2137, 2138	
G-2101-01	RTU-07	PLC-2	DI	DISTRIBUTION STRUCTURE PC-1 GATE OPENED				120 VAC	OPENED		USE SPARE INPUT 2.17, TERMINALS 2139, 2140	
G-2101-01	RTU-07	PLC-2	DI	DISTRIBUTION STRUCTURE PC-1 GATE CLOSED				120 VAC	CLOSED		USE SPARE INPUT 2.18, TERMINALS 2141, 2142	
G-2101-02	RTU-07	PLC-2	DI	DISTRIBUTION STRUCTURE PC-2 GATE IN REMOTE				120 VAC	REMOTE		USE SPARE INPUT 2.19, TERMINALS 2143, 2144	
G-2101-02	RTU-07	PLC-2	DI	DISTRIBUTION STRUCTURE PC-2 GATE OPENED				120 VAC	OPENED		USE SPARE INPUT 2.20, TERMINALS 2145, 2146	
G-2101-02	RTU-07	PLC-2	DI	DISTRIBUTION STRUCTURE PC-2 GATE CLOSED				120 VAC	CLOSED		USE SPARE INPUT 2.21, TERMINALS 2147, 2148	
G-2101-03	RTU-07	PLC-2	DI	DISTRIBUTION STRUCTURE PC-3 GATE IN REMOTE				120 VAC	REMOTE		USE SPARE INPUT 2.22, TERMINALS 2149, 2150	
G-2101-03	RTU-07	PLC-2	DI	DISTRIBUTION STRUCTURE PC-3 GATE OPENED				120 VAC	OPENED		USE SPARE INPUT 2.23, TERMINALS 2151, 2152	
G-2101-03	RTU-07	PLC-2	DI	DISTRIBUTION STRUCTURE PC-3 GATE CLOSED				120 VAC	CLOSED		USE SPARE INPUT 2.24, TERMINALS 2153, 2154	
G-2101-04	RTU-07	PLC-2	DI	DISTRIBUTION STRUCTURE MIXED LIQUOR PS IN REMOTE				120 VAC	REMOTE		USE SPARE INPUT 2.25, TERMINALS 2155, 2156	
G-2101-04	RTU-07	PLC-2	DI	DISTRIBUTION STRUCTURE MIXED LIQUOR PS GATE CLOSED				120 VAC	CLOSED		USE SPARE INPUT 2.27, TERMINALS 2159, 2160	
LSH-2101-02	RTU-07	PLC-2	DI	PRIMARY CLARIFIER 2 FLOOD				120 VAC		FLOOD	USE SPARE INPUT 2.28, TERMINALS 2161, 2162	
LSH-2101-01	RTU-07	PLC-2	DI	PRIMARY CLARIFIER 1 FLOOD				120 VAC		FLOOD	USE SPARE INPUT 2.29, TERMINALS 2163, 2164	
G-2101-01	RTU-07	PLC-2	DO	DISTRIBUTION STRUCTURE PC-1 GATE OPEN CMD							USE SPARE INPUT 4.19, PROVIDE NEW 24VDC INTERPOSING RELAY	
G-2101-01	RTU-07	PLC-2	DO	DISTRIBUTION STRUCTURE PC-1 GATE CLOSE CMD							USE SPARE INPUT 4.20, PROVIDE NEW 24VDC INTERPOSING RELAY	
G-2101-02	RTU-07	PLC-2	DO	DISTRIBUTION STRUCTURE PC-2 GATE OPEN CMD							USE SPARE INPUT 4.21, PROVIDE NEW 24VDC INTERPOSING RELAY	
G-2101-02	RTU-07	PLC-2	DO	DISTRIBUTION STRUCTURE PC-2 GATE CLOSE CMD							USE SPARE INPUT 4.22, PROVIDE NEW 24VDC INTERPOSING RELAY	
G-2101-03	RTU-07	PLC-2	DO	DISTRIBUTION STRUCTURE PC-3 GATE OPEN CMD							USE SPARE INPUT 4.23, PROVIDE NEW 24VDC INTERPOSING RELAY	
G-2101-03	RTU-07	PLC-2	DO	DISTRIBUTION STRUCTURE PC-3 GATE CLOSE CMD							USE SPARE INPUT 4.24, PROVIDE NEW 24VDC INTERPOSING RELAY	
MCC_1_PF	RTU-01	PLC-3	DI	OLD RW PUMP STATION MCC 1 POWER FAIL ALARM				120 VAC		ALARM	USE SPARE INPUT 1.16, TERMINALS 1,2038	FROM RTU-6 JBOX TERMINALS C1 & 131
GEN_RUN	RTU-01	PLC-3	DI	OLD RW PUMP STATION 500KW GENERATOR RUN STATUS				120 VAC	RNNG		USE SPARE INPUT 1.17, TERMINALS 1,2040	FROM RTU-6 JBOX TERMINALS C1 & 133
DRY_WELL_HI	RTU-01	PLC-3	DI	OLD RW PUMP STATION DRY WELL ALARM HIGH LEVEL				120 VAC		HIGH	USE SPARE INPUT 1.18, TERMINALS 1,2042	FROM RTU-6 JBOX TERMINALS C1 & 137
GEN_ALM	RTU-01	PLC-3	DI	OLD RW PUMP STATION 500KW GENERATOR ALARM				120 VAC		ALARM	USE SPARE INPUT 1.19, TERMINALS 1,2044	FROM RTU-6 JBOX TERMINALS C1 & 2102

Equipment Schedule 13570-S02

Wall Mounted Cabinets

1.000	**General**					
1.010	Specification Section 13570					
2.000	**Wall Mounted Cabinets**					
2.010	Tag Number/Panel ID	RTU-16	RTU-17	LCP-7010-01	LCP-7010-02	CPL-8205-01
2.020	NEMA type enclosure					
	12	X	X			
	3R					
	4					
	4X			X	X	X
2.030	Materials					
	Carbon steel	X	X			
	Stainless steel			X	X	X
	Fiberglass polyester					
2.040	Required environmental controls					
	Sun shade					
	Cooling fan					
	Air conditioned					
3.000	**Exceptions, Clarifications, and Comments**					
3.010	None					



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GENERAL
P&ID
FLOW DISTRIBUTION STRUCTURE

FIGURE: AD2-1

AFIGBORD
FAFIGBORD

Attachment 01015B: Preselected Equipment Proposal, Section 13530 – Programmable Logic Controllers

PROPOSAL

Project Name: Grand Island Headworks Improvement

Project ID: City Project WWTP – 2013 – 1

Bid Due: 4/25/2013

Pricing Valid for 150 Days from 4/25/2013

Our Proposal Number: KDGI S100592741 Revision04152013

Prepared For: All Bidders

Presented By: Kriz-Davis Co

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Rockwell Automation

Authorized Distributor

Allen-Bradley

GIWWTP Headworks Improvement Programmable Logic Controller

Item	Product	Qty
RTU 07		
1	**1756-IF6I** *Isolated Analog Input-Current/Voltage 6 Pts (20Pin)*	1
2	**1756-TBCH** *36 Pin Screw Clamp Block With Standard Housing*	1
RTU 16		
3	**1756-L62** *Logix5562 Processor With 4Mbyte Memory*	1
4	**1784-CF128** *Logic 556x Industrial Compactflash Card 128Mb*	1
5	**1756-BA2** *Lithium Battery (for use with Series B 1756-L6x Controllers)*	1
6	**1756-IF6I** *Isolated Analog Input-Current/Voltage 6 Pts (20Pin)*	4
7	**1756-OF6CI** *Isolated Analog Output - Current 6 Pts (20 Pin)*	3
8	**1756-IA32** *74-132 VAC Input 32 Pts (36P)*	4
9	**1756-OB32** *10-31 VDC Output 32 Pts (36 Pin)*	1
10	**1756-EN2T** *EtherNet 10-100M Interface Module (supports 128 TCP/IP connections)*	1
11	**1756-A17** *17 Slot ControlLogix Chassis*	1
12	**1756-PA75** *85-265 VAC Power Supply (13 Amp @ 5V)*	1
13	**1756-TBCH** *36 Pin Screw Clamp Block With Standard Housing*	9
14	**1756-TBNH** *20 Position NEMA Screw Clamp Block*	3
15	**1756-N2** *Slot Filler*	3
RTU 17		
16	**1756-IF6I** *Isolated Analog Input-Current/Voltage 6 Pts (20Pin)*	1
17	**1756-OF6CI** *Isolated Analog Output - Current 6 Pts (20 Pin)*	2
18	**1756-IA32** *74-132 VAC Input 32 Pts (36P)*	1
19	**1756-OB32** *10-31 VDC Output 32 Pts (36 Pin)*	1
20	**1756-EN2T** *EtherNet 10-100M Interface Module (supports 128 TCP/IP connections)*	1
21	**1756-A10** *10 Slot ControlLogix Chassis*	1
22	**1756-PA75** *85-265 VAC Power Supply (13 Amp @ 5V)*	1
23	**1756-TBCH** *36 Pin Screw Clamp Block With Standard Housing*	3
24	**1756-TBNH** *20 Position NEMA Screw Clamp Block*	2
25	**1756-N2** *Slot Filler*	4
Spare Parts		
26	**1756-L62** *Logix5562 Processor With 4Mbyte Memory*	1
27	**1756-IF6I** *Isolated Analog Input-Current/Voltage 6 Pts (20Pin)*	1
28	**1756-OF6CI** *Isolated Analog Output - Current 6 Pts (20 Pin)*	1
29	**1756-IA32** *74-132 VAC Input 32 Pts (36P)*	1
30	**1756-OB32** *10-31 VDC Output 32 Pts (36 Pin)*	1
31	**1756-EN2T** *EtherNet 10-100M Interface Module (supports 128 TCP/IP connections)*	1
32	**1756-PA75** *85-265 VAC Power Supply (13 Amp @ 5V)*	1
	GRAND TOTAL: $52,430.00	

Attachment 01015C: Preselected Equipment Proposal, Section 16150 – Adjustable Frequency Drives

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GRAND ISLAND WWTP HEADWORKS IMPROVEMENTS / GRAND ISLAND, NE

SCOPE OF WORK

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KDGIS100592820
CITY OF GRAND ISLAND, CITY PROJECT WWTP - 2013 - 1
4-18-13

Presented To: All Bidders

Office of Issue: Rockwell Automation, Inc.
Pricing is valid for 150 Days from 4/25/2013

Revision History				
Reference:	Date:	Description of change:	Edited by:	Revision:
	4-9-13	Proposal	R. Brockman	A
	4-10-13	Revision	R. Brockman	B
	4-18-13	Revision	R. Brockman	C

Contents

1 Scope of VFD Manufacturer

This proposal is for the supply of Variable Frequency Drives. The scope of supply is for the relevant sections of the specification limited to the items listed within this proposal and subject to the clarifications, exceptions and Rockwell Automation Terms & Conditions of Sale.

Spec Section – 16150

Addendums, Clarifications and Exceptions to Specification 16150 are listed below:

Section	Description	Comments
1-6	Spare Parts	**Clarification:** Qty (1) spare inverter per rating included to replace semiconductors and printed circuit boards.
2-3	Construction	**Clarification:** Standard dimensions included in proposal.
2-5.01	A door mounted membrane keypad with integral two-line, 24 character minimum LCD display that is capable of controlling the AFD and setting drive parameters. The keypad module shall be programmed with factory set drive parameters in nonvolatile EEPROM or FLASH memory and shall be resettable in the field through the keypad.	**Clarification:** Rockwell provides 7 Line 21 character HIM as a standard
2-6	Testing	**Clarification:** Standard factory functional test included in scope of proposal. (6) days of standard onsite startup/training included in proposal.
	Non Scope Items	**Clarification:** Please note the details of the items provided in this proposal. RA is only proposing what is specifically stated in this proposal.

2 Pricing Summary

Item	Qty	Part Number	Description	Total Net**
1	1		Electronic Print Approval Drawings	**$0.00**
2	1		Electronic Manufacturing Drawings	**$0.00**
3	1		Electronic Final Drawings	**$0.00**
4	1		Submittal Package	**Included**
5	1		Operator & Maintenance Manuals	**Included**
6	4	P-0025-02 TO P-0025-05	PF700 18Pulse 150HP drives	**Included**
7	2	P-0025-01, P-0025-06	PF700 6Pulse 100HP drives	**Included**
8	2	P-0810-01 , P-0810-02	PF700 6Pulse 50HP drives	**Included**
9	1	OCF-7010-01	PF700 6Pulse 25HP drives	**Included**
10	1	OCF-7010-02	PF700 6Pulse 15HP drives	**Included**
11	1	MAU-27	PF700 6Pulse 3HP drives	**Included**
12	1	MAU-28	PF700 6Pulse 5HP drives	**Included**
13	1	Services	Start-up (6 days x 8 hours)	**$11,000**
14	1	Harm3	Harmonic analysis - Onsite	**$6,000**
15	1	Services	Spares: (1) inverter per rating, (1) set control/power fuses per rating, (3) pilot lights per rating.	**$25,000**
16	1		Freight to 1st destination	**Included**
			Total(USD):	**$304,000**

*Note: If you opt for Paperless Submittals & Operator & Maintenance Manuals there will be No Charge.

Note: Breakout prices are offered for indication purposes only, and are **not offered as individual line items for sale. If changes in scope are required please re-submit the project for pricing updates.

3 Product Details

RAW WASTE WATER PUMPS (P-0025-02, P-0025-03, P-0025-04, P-0025-05)

Tag	Qty	Type	Bridge *	Drive HP	Drive Amps	Rating**	Input Voltage	Preliminary Dimensions	Cable Entry	Cable Exit
P-0025-02 TO P-0025-05	4	PF700	18 Pulse	150	186	ND	480VAC	91.5 x 55 x 25	Bottom	Bottom

*18 Pulse System Includes Aluminum Transformer as Standard
**ND – Normal Duty (110% Overload for 60 seconds)

Features Included with Each Drive:

Quantity	Feature
1	Circuit Breaker – 65kAIC
1	HIM
1	Speed Pot 1 Turn
3	Pilot Lights (Control Power, Run, Fault) ON PL
1	Control Power Transformer
2	Aux Contacts – (Drive Fault, Run)
1	H/O/A SS
1	**18 Pulse design**
1	MOV
1	**NEMA Type 12 Enclosure**
	Fans
1	dv/dt Filter
1	Speed Indicator (Calibrated in percent RPM)

1	Reset Pushbutton
1	Power loss control relay
1	Motor protection relay
1	Run Relay
1	Pump Stopped (G) pilot light
1	24V Power Supply

RAW WASTE WATER PUMPS (P-0025-01, P-0025-06)

Tag	Qty	Type	Bridge *	Drive HP	Drive Amps	Rating**	Input Voltage	Preliminary Dimensions	Cable Entry	Cable Exit
P-0025-01, P-0025-06	2	PF700	6 Pulse	100	125	ND	480VAC	91.5 x 25 x 25	Bottom	Bottom

**ND – Normal Duty (110% Overload for 60 seconds)

Features Included with Each Drive:

Quantity	Feature
1	Circuit Breaker– 65kAIC
1	HIM
1	Speed Pot 1 Turn
3	Pilot Lights (Control Power, Run, Fault) ON PL
1	Control Power Transformer
1	Aux Contacts - Drive Fault
1	Aux Contacts - Run
1	H/O/A SS
1	**6 Pulse design**
1	**NEMA Type 12 Enclosure**
	Fans

1	Harmonic Filter
1	dv/dt Filter
1	Speed Indicator (Calibrated in percent RPM)
1	Reset Pushbutton
1	Power loss control relay
1	Motor protection relay
1	Run Relay
1	Pump Stopped (G) pilot light
1	24V Power Supply

NON-POTABLE WATER PUMP (P-0810-01 , P-0810-02)

Tag	Qty	Type	Bridge *	Drive HP	Drive Amps	Rating**	Input Voltage	Preliminary Dimensions	Cable Entry	Cable Exit
P-0810-01 , P-0810-02	2	PF700	6 Pulse	50	65	ND	480VAC	91.5 x 25 x 25	Bottom	Bottom

**ND – Normal Duty (110% Overload for 60 seconds)

Features Included with Each Drive:

Quantity	Feature
1	Circuit Breaker– 65kAIC
1	Input Reactor 3% (TCI Model KLR, or equal)
1	HIM
1	Speed Pot 1 Turn
3	Pilot Lights (Control Power, Run, Fault) ON PL
1	Control Power Transformer
1	Aux Contacts - Drive Fault

1	Aux Contacts - Run
1	H/O/A SS
1	**6 Pulse design**
1	**NEMA Type 12 Enclosure**
	Fans
1	dv/dt Filter
1	Speed Indicator (Calibrated in percent RPM)
1	Reset Pushbutton
1	Power loss control relay
1	Motor protection relay
1	Run Relay
1	Pump Stopped (G) pilot light
1	24V Power Supply

ODOR CONTROL FAN (OCF-7010-01)

Tag	Qty	Type	Bridge *	Drive HP	Drive Amps	Rating**	Input Voltage	Preliminary Dimensions	Cable Entry	Cable Exit
OCF-7010-01	1	PF700	6 Pulse	25	34	ND	480VAC	49 x 30 x 12	Bottom	Bottom

**ND – Normal Duty (110% Overload for 60 seconds)

Features Included with Each Drive:

Quantity	Feature
1	Circuit Breaker– 65kAIC
1	Input Reactor 3% (TCI Model KLR, or equal)
1	HIM
1	Speed Pot 1 Turn
1	Control Power ON PL
1	Run PL Red
1	Drive Fault PL Red
1	Control Power Transformer
1	Aux Contacts - Drive Fault
1	Aux Contacts - Run
1	H/O/A SS
1	**6 Pulse design**
1	**NEMA Type 12 Enclosure**
	Fans
1	dv/dt Filter
1	Speed Indicator (Calibrated in percent RPM)
1	Reset Pushbutton
1	Power loss control relay
1	Motor protection relay

4	CR3, CR4, CR5, CR6
1	Pump Stopped (G) pilot light
1	TD1 Timer relay
1	Low Current Fail (A) Pilot light
1	Motor Current switch

ODOR CONTROL FAN (OCF-7010-02)

Tag	Qty	Type	Bridge *	Drive HP	Drive Amps	Rating**	Input Voltage	Preliminary Dimensions	Cable Entry	Cable Exit
OCF-7010-02	1	PF700	6 Pulse	15	22	ND	480VAC	49 x 30 x 12	Bottom	Bottom

**ND – Normal Duty (110% Overload for 60 seconds)

Features Included with Each Drive:

Quantity	Feature
1	Circuit Breaker– 65kAIC
1	Input Reactor 3% (TCI Model KLR, or equal)
1	HIM
1	Speed Pot 1 Turn
1	Control Power ON PL
1	Run PL Red
1	Drive Fault PL Red
1	Control Power Transformer
1	Aux Contacts - Drive Fault
1	Aux Contacts - Run

1	H/O/A SS
1	**6 Pulse design**
1	**NEMA Type 12 Enclosure**
	Fans
1	dv/dt Filter
1	Speed Indicator (Calibrated in percent RPM)
1	Reset Pushbutton
1	Power loss control relay
1	Motor protection relay
4	CR3, CR4, CR5, CR6
1	Pump Stopped (G) pilot light
1	TD1 Timer relay
1	Low Current Fail (A) Pilot light
1	Motor Current switch

MAKE UP UNIT (MAU-27)

Tag	Qty	Type	Bridge *	Drive HP	Drive Amps	Rating**	Input Voltage	Preliminary Dimensions	Cable Entry	Cable Exit
MAU-27	1	PF700	6 Pulse	3	5	ND	480VAC	49 x 30 x 12	Bottom	Bottom

**ND – Normal Duty (110% Overload for 60 seconds)

Features Included with Each Drive:

Quantity	Feature
1	Circuit Breaker– 65kAIC
1	Input Reactor 3% (TCI Model KLR, or equal)
1	HIM
1	Speed Pot 1 Turn
1	Control Power ON PL

1	Run PL Red
1	Drive Fault PL Red
1	Control Power Transformer
1	Aux Contacts - Drive Fault
1	Aux Contacts - Run
1	H/O/A SS
1	**6 Pulse design**
1	**NEMA Type 12 Enclosure**
	Fans
1	dv/dt Filter
1	Speed Indicator (Calibrated in percent RPM)
1	Reset Pushbutton
1	Power loss control relay
1	Motor protection relay

MAKE UP UNIT (MAU-28)

Tag	Qty	Type	Bridge *	Drive HP	Drive Amps	Rating**	Input Voltage	Preliminary Dimensions	Cable Entry	Cable Exit
MAU-28	**1**	**PF700**	**6 Pulse**	**5**	**8**	**ND**	**480VAC**	**49 x 30 x 12**	**Bottom**	**Bottom**

**ND – Normal Duty (110% Overload for 60 seconds)

Features Included with Each Drive:

Quantity	Feature
1	Circuit Breaker– 65kAIC
1	Input Reactor 3% (TCI Model KLR, or equal)
1	HIM
1	Speed Pot 1 Turn
1	Control Power ON PL

1	Run PL Red
1	Drive Fault PL Red
1	Control Power Transformer
1	Aux Contacts - Drive Fault
1	Aux Contacts - Run
1	H/O/A SS
1	**6 Pulse design**
1	**NEMA Type 12 Enclosure**
	Fans
1	dv/dt Filter
1	Speed Indicator (Calibrated in percent RPM)
1	Reset Pushbutton
1	Power loss control relay
1	Motor protection relay

4 COMMERCIAL ITEMS

W/WW SUBMITTALS

If required, Rockwell Automation standard submittal procedure includes up to 10 submittal binders & 3 CD's.
Note: The price quoted for submittals is for the printing services only. The engineering required in the preparation of submittals is included in the base price of the quoted VFD's. Any submittal not returned within 3 months of submittal date will be reviewed for price and delivery impact.

W/WW O&M MANUALS

If required, Rockwell Automation standard O & M procedure includes up to 10 submittal binders & 3 CD's.

SHIPMENT

Lead time is 14-16 Weeks ARO or after receipt of approval drawings in Mequon. This does not include time required for special/witness testing and/or dyne testing. Approval drawings, if required, will be supplied 6-8 weeks ARO.

FREIGHT

Freight is prepaid and allowed to first destination, with means of transport selected by Rockwell Automation. Special means of transport directed by customer purchase order will incur additional freight charges. Freight for the VFD to the pump manufacturer's facility is also included in the price. Freight cost for shipping VFD's from the pump OEM's facility to the jobsite is NOT included. Rockwell Automation has included in this proposal our standard packaging and shipping for configured drives. Export crating is not included in this proposal.

WARRANTY

Standard – Parts only - Warranty period is the lesser of 12 months from startup or 18 months from date of shipment from the Rockwell Automation manufacturing facility unless otherwise noted. See definition below.
Parts and labor warranty is available upon request. See definition below.

Definition – Parts warranty: Covers the major component items of the supplied materials. Expendable items including but not exclusive of lights/indicators, fuses, push-buttons, fans, filters, relays, are excluded from the provided on-site warranty offered. Seller does not warrant and will not be liable for any design, materials, construction criteria or goods furnished or specified by Buyer (including that sourced from other manufacturers or vendors specified by Buyer). Any warranty applicable to such Buyer-specified items will be limited solely to the warranty, if any, extended by the original manufacturer or vendor directly or indirectly to Buyer. Seller does not warrant the compatibility of its Products with the goods of other manufacturers or Buyer's application except to the extent expressly represented in Seller's published specifications or written quotation.
Definition – Parts & labor warranty (if included in this proposal): Consist of time, travel and expenses for services covered under the parts warranty definition above. On-site warranty services are available Monday through Friday 8AM to 5PM, excluding Rockwell Automation and/or National holidays. Requested on-site warranty services require a minimum of 24 hours advance notification. Warranty services requested outside the normal Monday through Friday 8AM to 5PM working period (evenings and/or holidays) will be billable for labor and expenses at the Rockwell Automation standard published engineering rate for labor at the time of the request and for expenses at actual cost plus 10% handling charge.
On-site warranty services and expenses will be billable for warranty calls found to be solely of the expendable items listed above.

PRICE IS FIRM

Price is valid for 30 days from initial issue of proposal. Delays incurred by others resulting in a shipment date after the mutually agreed upon shipping date specified in the purchase order may cause escalation of the quoted price. Pricing does not include any state, sales, use or other taxes as may be applicable to this project.

RIGHT TO INVOICE

Purchaser will be notified when Rockwell Automation is ready to ship. Rockwell Automation reserves the right, upon stated notification, to issue invoice for goods ready to ship notwithstanding purchaser's ability to accept shipment.

OEM TESTING

If required, the services of a Rockwell Automation Field Service Personnel can be provided for supervision of setup of the VFD system and operation of the VFD during a string test at the pump OEM's facility. This service consists of 1 trip, totaling 2 days to test the system. A price adder, not included in this proposal, for the stated option including travel and expenses for the Rockwell service agent can be provided upon request.

+

STORAGE

Provisions must be made by the receiving party for storage in a clean, dry, temperature controlled facility immediately after conducting a thorough receiving inspection. In the event purchaser is unable to accept shipment upon notification of Rockwell Automation's readiness to ship, goods shall be placed in suitable storage by Rockwell Automation. Storage charges, escalation charges (if applicable) and any charges for drayage, re-inspection by Q.A., etc. will be accrued to the account of the purchaser.

VFD STARTUP

The services of a Rockwell Automation Field Service Engineer for startup of the Rockwell Automation drives, if required per the specifications, are provided as a line item on price summary.

VFD TESTING

Each VFD is tested before being shipped (See Rockwell Automation standard VFD test procedure attached). Rockwell Automation can also customize a test procedure to meet your specific project needs. Contact your Rockwell Automation sales office for further details and pricing.

TERMS AND CONDITIONS OF SALE:

If the service is purchased direct from Rockwell Automation, Rockwell Automation General Terms and Conditions of Sale (Publication 6500) are applicable. If service is purchased through an authorized Allen-Bradley Distributor, the distributor's terms and conditions of sale are applicable.

PUBLICITY

Customer agrees that Rockwell Automation may disclose in the ordinary course of business Customer's name and logo on Rockwell Automation's customer list and Web site. For this project, Rockwell Automation may wish to publicize a contract award by issuing a brief news release, and only on a one-time basis. In such event, Rockwell Automation will provide Customer with a written request approving such news release. Customer agrees to approve or deny such requests within 30 days from receipt of request.

TRAINING

If Informal training is included in this proposal, unless otherwise agreed to in advance, this training will be provided on site by the Rockwell Engineer performing the start-up work. No training manuals will be supplied. No formal classroom training involving printed materials, overhead projectors, or training demo hardware is included. The training may refer to the O & M manuals supplied for the project, but they are not required for training.

HARMONIC ANALYSIS/TESTING

If harmonic analysis/calculations are included in this proposal, there will be a limit of two iterations of bus and/or loading configurations.

If on site harmonic measurements are included, it is the customer's responsibility to verify that all motors are fully loaded at the time of verification testing and to arrange for the drives to be shutdown to acquire baseline measurement. The allocated time to take measurements should be less than 4 hours.

Rockwell will measure harmonic content with a utility grade power monitor inter wired at the point of common coupling as defined by specification to provide ongoing IEEE 519 compliance verification and provide local information on voltage, current and power characteristics of the first 50 harmonics. Rockwell is not responsible for overall system compliance.

5 Addendums, Clarifications and Exceptions to Commercial T&C's

For the scope of equipment outlined in this proposal, prices noted are in USD funds. Prices exclude freight, duty and taxes unless otherwise specified.

This quotation is valid for 30 days after proposal generation date. Scope of supply will be built as defined by this proposal. Should errors and omissions be identified they will be quoted as price adders.

"Products and associated materials supplied or licensed hereunder may be subject to various export laws and regulations. It is the responsibility of the exporter to comply with all such laws and regulations. Notwithstanding any other provision herein to the contrary, in the event that U.S. or local law requires export authorization for the export or re-export of any Product or associated technology, no delivery can be made until such export authorization is obtained, regardless of any otherwise promised delivery date. In the event that any required export authorization is denied, Seller will be relieved of any further obligation relative to the sale and/or license and delivery of the Product(s) subject to such denial without liability of any kind relative to Buyer or any other party. Seller will not comply with boycott related requests except to the extent permitted by U.S. law and then only at Seller's discretion."

*Should changes to the drive package (s) specified herein be required due to a system supplier requirement or information not contained in the specification Rockwell Automation reserves the right to adjust price accordingly.

*All other commercial items to be handled locally

Important Design and Application Features

Rockwell Automation is acting as an equipment supplier only, not as a contractor or sub – contractor.

1. VFD's are sized based on HP requested with 1,800 RPM motors. If motor data is received at a later date which increases the size of the VFD's, Rockwell Automation reserves the right to increase pricing accordingly.
2. Local code is not in the scope of the VFD supplier.
3. The drives have adjustable carrier frequency of 2-10 KHz. The drive ratings are based on 4 KHz setting.
4. Rockwell Automation packaged drives are rated for Seismic Zone 4, 0-40 deg C.
5. Motor FLA is required in order to properly size the drives to 110% (or 115%). The drives are sized by horse power according to the one line received. If the FLA of the motor + 110% (or115%) is larger than the quoted drives Rockwell Automation reserves the right to increase price accordingly.
6. Labor, equipment, and materials required for installation are not in the scope of the VFD supplier.
7. Power and motor cable termination lugs are the responsibility of the purchaser, not Rockwell Automation.
8. Wire markers, if required by spec, are sleeve-type and applied to customer wiring points only.
9. Rockwell Automation drives have a +/- 10% voltage tolerance. See Pub 20B-UM001_-EN-P for full details.
10. Power factor correction caps should not be used with Rockwell Automation drives.
11. Rockwell Automation standard test process and procedure are included with this proposal.
12. Rockwell Automation VFD VT rating is 110% for 1 minute and CT rating is 150% for 1 minute.
13. Motor design, cable lead length and type are required in order to determine if DV/DT filters are required in the design. If information is received post proposal, and it is determined filters are required, Rockwell Automation reserves the right to increase the price accordingly.
14. Rockwell Automation VFD PCB connections are not all gold plated.
15. Drive modules are run-in tested prior to shipment to Rockwell Automation.
16. The door mounted HIM is not available with a keypad key switch.
17. Non current carrying parts will be painted with a Rockwell Automation standard paint color.
18. Field testing and the equipment to perform the required field testing is not in the scope of the VFD manufacturer.
19. The HIM backlight and DC bus parameter can provide indication that the bus is charged.
20. When sizing drive/motor combinations, Rockwell Automation assumes that inverter duty motors have a service factor of 1.0 when run on VFD power, in accordance with NEMA MG1 Section 31.3.7.

Summary Statement

Rockwell Automation appreciates the opportunity to propose our products and services for your project. Please contact me if you have any questions,

City of Grand Island, Nebraska
Headworks Improvements, Project No. WWTP-2013-1

Contact	Company Name	Address	City, State, Zip	Phone	E-mail
Dave Farkas	Garney Const.	133 NW Vivion Road	KC, MO 64118	816-278-5950	bgardner@garney.com
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Teresa Rankin	Hydro-International	2925 NW Aloclek Drive, Suite 140	Hillsboro, OR 97124	503-615-0908	trankin@hydro-int.com
Jerri Pederson	Eriksen Construction Co. Inc.	2546 South Hwy. 30	Blair, NE 68008	402-426-3119	jerrip@eriksenconst.com
Ethel White	Midlands Contracting, Inc.	10075 1st Avenue	Kearney, NE 68847	308-237-7979	ethel@midlandscontracting.com
Doug Rothweiler	Thomas Industrial Coatings	2070 Highway Z	Pevely, MO 63070	314-220-4758	drothweiler@thomasindcoatings.com
Darryl Doty	Industrial Process Technology, Inc.	718 South Montana Street	Mitchell, SD 57301	605-995-5985	iptech@midconetwork.com
Scott Nielsen	Kriz-Davis Co.	2400 W Third	Grand Island NE 68803	308-382-2230	snielsen@krizdavis.com
Bruce Hueftle	IES Commercial Inc.	715 South Clark	Grand Island NE 68801	308-389-3951	bruce.hueftle@ies-co.com
Wade Leonard	Rice Lake Construction Group	22360 County Road 12	Deerwood, MN 56444	218-546-5519	estimating@ricelake.org
Steve McIntyre	Electric Pump	4280 E 14th Street	Des Moines, IA 50313	515-265-2222	stevem@electricpump.com
Kathy Marshall	McGraw Hill Construction	3315 Central Ave.	Hot Springs, AR 71913	912-351-4504	kathy_marshall@mcgraw-hill.com
Ron Williams	Williams Drilling Co., Inc.	6204 Spur 85D	Belvidere, NE 68370	402-768-6098	driller56@hotmail.com
Loy Duerksen	Interstate Industrial Instrumenation Inc.	10424 "J" Street	Omaha, NE 68127	402-331-3535	loyyd@iiiinc.com
Dave Loeffler	Island Landhandlers, Inc.	2419 S. North Road	Grand Island, NE 68802	308-380-1140	davidl@islandlandhandlers.com
Plan Room	Lincoln Builders Bureau	5910 S. 58th Street, Suite C	Lincoln, NE 68156		N/A
Plan Room	Omaha Builders Exchange	4255 South 94th Street	Omaha, NE 68127		N/A
Plan Room	Reed Construction	30 Technology Parkway South; Suite 100	Norcross, GA 30092		N/A
Plan Room	Builders Plan Service	309 W. 2nd Street	Grand Island, NE 68801		N/A