

PROPOSAL

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**Altronex Control Systems**

A Division of L. W. Allen, LLC

*Excellence, By Design*

4633 Tompkins Drive  
Madison, WI 53716

2020 City of Manitowoc SCADA System Upgrades

Attn: Greg Minikel, P.E., Engr. Division Manager  
920-686-6910  
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PROPOSAL ID: 20111111MKA-Rev 2  
REFERENCE: SCADA System Upgrades  
LOCATION: Manitowoc, WI  
BID DATE: February 8, 2021

TERMS: NET-30 DAYS PER ATTACHED TERMS AND CONDITIONS  
ADDENDUM \_\_ ACKNOWLEDGED

FREIGHT IS F.O.B. ORIGIN – ALLOWED  
PRICES DO NOT INCLUDE SALES OR USE TAXES

ITEM	QUAN	DESCRIPTION	TOTAL PRICE
		<p>L.W. Allen and its Altronex Control Systems division are pleased to provide a quotation for the following equipment and services per the RFP dated October 28, 2020.</p> <p>The original SCADA System was put into service in 2000 by Altronex Control Systems. The equipment has been in service for 20 years and has met and exceeded its life expectancy. The City of Manitowoc would like to upgrade their SCADA equipment located at the DPW. This would include the PLC, computer and Wonderware app. There will be no changes to the lift stations.</p> <p>Since we are not updating the lift stations, the radio at the MTU will remain and be reused. The current radios are MDS 4710 radios that use serial communications. There is no radio in production today that can talk to the MDS 4710 <b>and</b> communicate with a PLC via Ethernet communications. So, we will have to reuse the MDS 4710 with serial communications at the MTU. Updating the radio at the MTU to a new Ethernet radio will have to wait until the Lift Stations get updated. During the Lift Station Upgrades all of the radios would be updated to Ethernet radios.</p> <p>Normally, the Allen Bradley SLC PLC controller utilizing the serial port would be replaced with the CompactLogix 5370 L3 Controller, 1769-L32ER, because it has an Ethernet port and serial port. The problem is AB stopped supporting that processor. The 5370 series only offer processors with Ethernet communications. In order to reuse the MDS 4710 radio with the serial communications, we recommend using the CompactLogix 5380 Controllers because that platform offers a separate serial module that can be added to the PLC configuration. The CompactLogix 5380 platform is forward compatible with the future Lift Station Upgrades.</p> <p>To complete the Lift Station Upgrades, we recommend doing a Field Radio Survey in the summer to determine the best approach for replacing the radios. That survey would determine the model radios, the antenna heights and direction required to achieve a good radio signal. All of the equipment we supply would be reused once the Lift Stations are updated to a new PLC, radio and antenna, with exception to the serial module on the PLC configuration. That serial module isn't a big cost and can be used somewhere else in the future.</p>	

ITEM	QUAN	DESCRIPTION	TOTAL PRICE
<b>Computer Hardware</b>			
A	1	<p>SCADA Workstation</p> <ol style="list-style-type: none"> <li>1. Dell desktop computer               <ol style="list-style-type: none"> <li>a. Windows 10 Pro 64 bit</li> <li>b. Intel Core i5-9500</li> <li>c. 16GB Memory</li> <li>d. M.2 256GB Class 35 Solid State Hard Drive</li> <li>e. 3-year computer warranty</li> </ol> </li> <li>2. 24" monitor, resolution to match Wonderware Application</li> <li>3. Wireless keyboard and mouse</li> <li>4. Speaker</li> <li>5. Microsoft Office Professional (With Access)</li> </ol> <p>Recommendations:</p> <ol style="list-style-type: none"> <li>1. We recommend using our stand computer build for the Workstation because it is a proven combination of hardware and Dell software. We have found some computer builds are naturally slower than others because of the manufactures built in software. Our standard offering is a fast machine with proven performance.</li> <li>2. We also keep 2-3 computers of our standard build in stock in the event a customer has a computer failure.</li> </ol>	
<b>Computer Software</b>			
B	1	<p>SCADA Software</p> <ol style="list-style-type: none"> <li>1. Workstation Wonderware License               <ol style="list-style-type: none"> <li>a. Upgrade the existing Wonderware license to the latest version.</li> <li>b. The license will remain a 2K tag license.</li> </ol> </li> <li>2. Access Reports will be maintained and transferred over to the Workstation</li> <li>3. LogMeIn Pro               <ol style="list-style-type: none"> <li>a. Remote access software allows unlimited users to access up to 2 computers.</li> <li>b. The operators can remote into the Workstation and/or the Laptop to access the Wonderware app</li> <li>c. 1-year subscription</li> <li>d. The LogMeIn Pro will be loaded to both computers and necessary phones/tablets.</li> </ol> </li> </ol>	
C	1	<p>Reporting Software</p> <ol style="list-style-type: none"> <li>1. The existing SCADA system was supplied with Altronex Access Reports</li> <li>2. Provide and maintain Altronex Access Reports on the Workstation</li> <li>3. Maintain all historical data on the Workstation</li> </ol>	
D	1	<p>Hardware Alarm Dialer</p> <ol style="list-style-type: none"> <li>1. Replace existing Verbatim Gateway Dialer with a 96 channel Catalyst Dialer.</li> <li>2. The Catalyst Dialer has 4 hardwired channels and 96 Ethernet channels initiated via the PLC.</li> </ol>	
<b>Master Telemetry Unit Upgrades</b>			
E	1	<p>Master PLC Upgrade</p> <ol style="list-style-type: none"> <li>1. Replace the existing Allen Bradley SLC PLC platform with the CompactLogix 5380 CompactLogix PLC platform</li> <li>2. 5069-L310ER Processor</li> </ol>	

ITEM	QUAN	DESCRIPTION	TOTAL PRICE
		<ol style="list-style-type: none"> <li>3. 5069-SERIAL Communication Module</li> <li>4. 5069-IA16 Digital Input Module</li> <li>5. 5069-OW16 Digital Output Module (2)</li> </ol>	
F	1	<p>Master Operator Interface Terminal Upgrade</p> <ol style="list-style-type: none"> <li>1. 7" C-More touchscreen</li> <li>2. Re-develop all screens from the existing OIT</li> <li>3. Maintain all functionality of the existing OIT</li> </ol>	
G	1	<p>PLC and Wonderware Programming Enhancements</p> <ol style="list-style-type: none"> <li>1. Provide an alarm bypass function for each alarm</li> <li>2. Provide an alarm if the alarm bypass is left on after a set time delay</li> <li>3. Provide Pump Run Times and trending with a history of 6 months</li> <li>4. Update the alarm history to keep data up to 1 year</li> <li>5. Provide the ability to generate reports from the Access Database</li> <li>6. Provide User Logins per employee to access the system/setpoints</li> </ol>	
H	1	<p>Radio and Antenna Upgrade</p> <ol style="list-style-type: none"> <li>1. Reuse existing MDS 4710 radio at the MTU</li> <li>2. Provide and install new ½" Heliac antenna cable</li> <li>3. Provide and install new omni antenna</li> </ol> <p>Clarifications:</p> <ol style="list-style-type: none"> <li>1. The radio at the master cannot be updated to an Ethernet radio because there is no Ethernet radio that can communicate with the 4710 serial radios.</li> <li>2. Updating the radios will require updating them all at once.</li> <li>3. If certain sites are becoming a problem for communications, replacing the antenna and antenna cable can help improve the signal strength. The antennas have a plastic tuning element that gets degraded by ultraviolet light. That degradation reduces the signal quality. It is recommended to upgrade the antenna and antenna cable every 10 years.</li> </ol>	
<b>Services</b>			
I	1	<p>Radio Survey</p> <ol style="list-style-type: none"> <li>1. Field Radio Survey to be conducted in the summer.</li> </ol> <p>Clarifications:</p> <ol style="list-style-type: none"> <li>1. A software desktop study for the radio communications only accounts for topology, it doesn't account for trees or the type of trees. Only a field radio survey can provide you solid answers on antenna heights and direction. A field radio survey would need to be conducted in late spring, summer or early fall when the trees have their max foliage.</li> </ol>	
J	1	<p>Altronex Control Systems Professional Services</p> <ol style="list-style-type: none"> <li>1. CAD Updates to any affected drawings</li> <li>2. PLC, OIT and SCADA programming</li> <li>3. System Testing</li> <li>4. Startup</li> <li>5. Minimum of 4 hours of training</li> <li>6. 1-year warranty</li> </ol>	

ITEM	QUAN	DESCRIPTION	TOTAL PRICE
K	1	Items Not Included: 1. Lift Station Modifications 2. Lift Station Antenna Work 3. New radio at the MTU 4. Field Radio Survey	
<b>Lump Sum Cost for the Above Items</b>			
		<b>Total for Items A-K:</b>	<b>\$48,088</b>
<b>Expected Construction Dates</b>			
		Assuming receipt of a Purchase Order by February 26, 2021, we anticipate a Substantial Completion Date of August 31, 2021 and a Final Completion Date of September 30,2021	

ACCEPTED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_

PRICE FIRM FOR **30** DAYS

\_\_\_\_\_  
 NAME OF PURCHASER

SUBMITTED THIS: February 8, 2021

BY: \_\_\_\_\_

BY: \_\_\_\_\_

L.W. ALLEN, INC.-BY:



NAME & TITLE

Kurt Atwood

### Terms and Conditions

**Controlling Provisions:** These terms and conditions shall supersede any provisions, terms, and conditions contained on any purchase order or other written form Buyer may use or provide (whether received by Seller prior or subsequent to date hereof), and the rights of the parties shall be governed exclusively by the provisions, terms, and conditions hereof.

**Quotations and Acceptance:** Acceptance of a quotation, whether by a separate purchase order or by other means, shall constitute an acknowledgment and approval of the quotation as written and an acceptance of the Terms and Conditions hereof. Written quotations shall expire on the date specified in the quotation or, in the absence of such specification, thirty calendar days from the date issued. Seller may, by written notice, terminate a quotation at any time prior to acceptance. Any purchase order received after expiration of a quotation, which Seller honors, shall be subject to all of the Terms and Conditions hereof.

**Submittal Drawings:** Submittal of drawings for approval, if required, will be made after receipt of complete information from buyer. The quantity of the submittal drawings will be as specified in the contract documents. Additional sets will be supplied at \$150.00 per set. Return to Seller of one (1), final approved drawing constitutes notice to Seller to proceed with manufacturer. If this order is conditioned upon "engineer approval" Seller requires written notification from buyer in the form of approved submittal data.

**Force Majeure:** Seller shall not be liable for failure to deliver or perform, for any delay in the performance of orders or contracts, or in the delivery of shipment of goods, or for any damages suffered by the buyer due to such delay or failure, when the delay or failure is, directly or indirectly, caused by or arises from delays of suppliers or carriers or any other cause beyond Seller's control.

**Prices and Taxes:** All prices are F.O.B. factory unless expressly stated otherwise. Prices do not include sales, excise, municipal, state or other governmental taxes. Buyer shall be responsible for all taxes.

**Credit Approval:** The credit terms specified on the face hereof are subject to Seller's continuing approval of Buyer's credit. Seller may withdraw the extension of credit and require modified payment terms if, in Seller's sole judgment, Buyer's credit or financial standing is impaired to the point where Seller in good faith deems itself insecure.

**Delivery:** Unless otherwise specified in this quotation, delivery will be F.O.B. Seller's point of shipment. Buyer will accept delivery within twenty (20) days after Seller notifies Buyer that the equipment is ready for shipment. If Buyer does not furnish exact shipping instructions within ten (10) days after acceptance of this proposal, Seller will select, at its discretion, the means and terms of shipment. Seller will not be liable for any loss resulting from such selection. The time of delivery is an estimate only, and Seller may change such time if it does not receive the information and approvals necessary to proceed with the manufacture of equipment.

**Title, Risk of Loss, Inspection of Equipment:** Title and risk of loss to the equipment shall pass to Buyer upon delivery of the equipment to the carrier. Buyer shall immediately inspect equipment upon receipt and any damage must be noted on the carrier's bill of lading at time of receipt. Seller is not liable for any shortages or nonconformance unless notified by Buyer within 10 days of Buyer's receipt of the equipment. Buyer will make all claims for loss or damage in transit against the carrier.

**Changes, Cancellations, Returns:** All changes, cancellations, or returns must have Seller's prior written approval and are conditional on compliance with manufacturer's cancellation/return policies and subject to restocking fees and service charges. Authorized returned equipment must be packaged and shipped prepaid to manufacturer.

**Payment:** Unless the Seller extends alternative credit terms, 90% of the total purchase price is due net 30 days after delivery of equipment (but in all cases prior to field service start-up, if earlier) and the remaining 10% is due upon start-up of equipment by Seller's field technician, but in no event more than 90 days after shipment of equipment. Any balance owed by Buyer after the due date is subject to a 1.5% per month delinquency charge until paid. **FIELD START-UP SERVICE CANNOT BE AUTHORIZED WITHOUT RECEIPT OF PAYMENT IN THE AMOUNT OF 90% OF THE TOTAL PURCHASE PRICE.** If no start-up is required, 100% payment is due net 30 days from invoice date. **BUYER'S PAYMENT OBLIGATION IS IN NO WAY CONTINGENT UPON BUYER'S RECEIPT OF PAYMENT FROM ANY OTHER PARTY.**

**Indemnification and Default:** In addition to all other amounts due hereunder, buyer shall reimburse Seller in full for all collection costs or changes, including reasonable attorney fees, which Seller may incur in the collection of past due amounts from buyer, including interest on overdue accounts. If buyer is in default under this or any other agreement with Seller, Seller may defer performance hereunder until such default is cured. Seller shall have no obligation to provide factory startup assistance and/or factory training until all invoices (including retentions) for equipment have been paid in full.

**Security Interest:** Seller shall retain a security interest in the equipment until the full purchase price has been paid. Buyer's failure to pay any amounts due shall give Seller the right to possession and removal of the equipment after providing ten (10) days written notice. Seller's taking of such possession shall be without prejudice to any other remedies Seller may have.

**Warranty and Liability:** Buyer shall have such warranty rights, and only such warranty rights, as may be extended by the manufacturer of the product. The terms and conditions of any such warranty rights are set forth in the Manufacturer's Operation/Maintenance Manual which accompanies each product. Seller does not otherwise offer any guaranty or warranty for the product. Seller disclaims any and all warranties; express or implied, including the warranties of merchantability and fitness, except as may be set forth in the terms and conditions of sale in this Agreement or in any express written warranty which seller may have otherwise extended to Buyer for the product. Unless otherwise agreed, warranty coverage is 18 months from date of shipment or 12 months from date of startup, whichever comes first.

Seller shall not be liable for any damages, charges for labor, or expense in making repairs or adjustments to the product without prior written approval of Seller. Seller shall not be liable for any damages or charges sustained in the adaptation or use of its engineering data or service by Buyer or any third party. Seller shall not be liable for startup or any other field work performed by personnel other than authorized representatives of Seller unless expressly approved in writing in advance by Seller. Seller shall in no event be liable for any consequential, incidental or liquidated damages or penalties. Seller's liability under this Agreement shall in no event exceed the lesser of: (i) the cost of remediating any defect or deficiency in the performance of Seller hereunder; or (ii) the purchase price of the product in respect of which the claim is made.

**Operation/Maintenance Manuals:** Buyer's installation, maintenance and operation manuals will be furnished in the number of copies specified at the time of quotation in contract documents. If none specified, one will be provided at no added cost, with additional copies at \$150.00 each.