



Working Together for a  
Better Tomorrow. Today.

## **BID SPECIFICATION PACKAGE**

**for**

## **ROGERS PUMPING STATION CONTROLS UPGRADE**

### **C 131775**

#### Bid Opening Date/Time

Tuesday, September 13, 2022 at 2:00 p.m. (local time)  
City of Grand Island, City Hall  
100 East 1<sup>st</sup> Street, P.O. Box 1968  
Grand Island, NE 68802-1968

#### Contact Information

**RYAN KRUSE**  
City of Grand Island – Utilities Department  
Platte Generating Station  
Email: [rkruse@giud.com](mailto:rkruse@giud.com)  
Phone: 308/385-5496

Date issued: August 22, 2022

**ADVERTISEMENT TO BIDDERS  
FOR  
ROGERS PUMPING STATION CONTROLS UPGRADE  
FOR  
CITY OF GRAND ISLAND, NEBRASKA**

Sealed bids for Rogers Pumping Station Controls Upgrade will be received at the office of the City Clerk, 100 E. First Street, P.O. Box 1968, Grand Island, Nebraska 68802, until **Tuesday, September 13, 2022 at 2:00 p.m. local time**, FOB the City of Grand Island, freight prepaid. Bids will be publicly opened at this time in the Grand Island City Hall City Clerk's Office located on 1<sup>st</sup> floor of City Hall. **Submit an original and three copies if submitting by mail.** Bid package and any Addendas are also available on-line at [www.grand-island.com](http://www.grand-island.com) under Business-Bids and Request for Proposals-Bid Calendar under the bid opening date. Bidding documents, plans and specifications for use in preparing bids may be downloaded from the QuestCDN website [www.QuestCDN.com](http://www.QuestCDN.com) for a \$30.00 fee. Submitting through QuestCDN requires one original document of the bid to be uploaded. **Bids received after the specified time will not be considered.**

The successful bidder will be required to comply with fair labor standards as required by Nebraska R.R.S.73-102 and comply with Nebraska R.R.S. 48-657 pertaining to contributions to the Unemployment Compensation Fund of the State of Nebraska. Successful bidder shall maintain a drug free workplace policy. Every public contractor and his, her or its subcontractors who are awarded a contract by the City for the physical performance of services within the State of Nebraska shall register with and use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska.

Each bidder shall submit with the bid a certified check, a cashiers check, or bid bond payable to the City of Grand Island Treasurer in an amount no less than five percent (5%) of the bid price which shall guarantee good faith on the part of the bidder and the entering into a contract within fifteen (15) days at the bid price if accepted by the City. **Your certified check, cashiers check or bid bond must be submitted in a separate envelope attached to the outside of the envelope containing the bid.** Each envelope must be clearly marked indicating its contents. **Failure to submit the necessary qualifying information and correct number of copies in clearly marked and separate envelopes will result in your bid not being opened or considered.** Only surety companies authorized to do business in the State of Nebraska may issue bid bonds.

Bids will be evaluated by the Purchaser based on price, schedule, quality, adherence to schedule, plan and specifications, economy and efficiency of operation, experience and reputation of the bidder, ability, capacity, and skill of the bidder to perform contract required and adaptability of the particular items to the specific use intended.

The Purchaser reserves the right to reject any or all bids, to waive irregularities therein, and to accept whichever bid that may be in the best interest of the City, at its sole discretion.

No bidder may withdraw his/her bid for a period of thirty (30) days after date of bid opening.

RaNae Edwards, City Clerk

**Advertised**

(All bids must be submitted on this form)

**ROGERS PUMPING STATION CONTROLS UPGRADE**  
**BID DATA FORM**

CITY OF GRAND ISLAND  
GRAND ISLAND, NE

THE undersigned Bidder, having examined the plans, specifications, general and special conditions, and other proposed contract documents, and all addenda thereto, and being acquainted with and fully understanding all conditions relative to the location, arrangement and specified materials and equipment for the proposed work, HEREBY proposes to upgrade the control system at the water distribution facility known as Rogers Pumping Station that includes 2-three million gallon reservoirs and 3 centrifugal pumps FOB the City of Grand Island, freight prepaid, at the following price:

<u>ITEM DESCRIPTION</u>	<u>EXTENDED COST</u>
Base Bid:	
Material	\$ _____
Labor	\$ _____
Applicable Sales tax*	\$ _____
<b>Total Base Bid</b>	<b>\$ _____</b>

**\* If bidder fails to include sales tax in their bid price or takes exception to including sales tax in their bid price, the City will add a 7.5% figure to the bid price for evaluation purposes; however, the City will only pay actual sales tax due.**

**Exceptions Noted** - Bidder acknowledges there are *Exceptions* and/or *Clarifications* noted to the above bid, and those exceptions are fully explained on a separate sheet, clearly marked, and included with the Bid.

\_\_\_\_\_  
Bidder Company Name Date

\_\_\_\_\_  
Company Address City State Zip

\_\_\_\_\_  
Print Name of Person Completing Bid Signature

Email: \_\_\_\_\_ Telephone No. \_\_\_\_\_

According to Nebraska Sales and Use Tax Requirements, Section 1-017, Contractors, check which option you have selected to file with the Nebraska Department of Revenue:

*Nebraska law provides a sales and use tax exemption on contractor labor charges for the construction, repair, or annexation of any structure used for the generation, transmission, or distribution of electricity. Separately stated contractor labor would be exempt, all materials are taxable according to the contractor's option.*

Option 1 (Section 1-017.05) \_\_\_\_\_ Option 2 (Section 1-017.06) \_\_\_\_\_ Option 3 (Section 1-017.07) \_\_\_\_\_

*If the Nebraska sales and use tax election is not filed or noted above, the contractor will be treated as a retailer under Option 1 for sales and use tax purposes.*

By checking this box, Bidder acknowledges the specified completion date of the project is **April 15, 2023**.

By checking this box, Bidder acknowledges that Addenda Number(s) \_\_\_\_\_ were received and considered in Bid preparation.

Note: If Bidder supplies individual unit pricing information as supplemental pricing to the base material and labor cost above, said individual pricing is proprietary information and should not be released under a public records request. The total base bid is not considered proprietary information and will be released pursuant to City Procurement Code.

Any exceptions to the specification or Owner's Contract Document shall be checked above and those exceptions fully explained on a separate sheet, clearly marked and included with bid.

The City reserves the right to reject any bid section(s) submitted by the successful bidder. In submitting the bid, it is understood that the right is reserved by the City to reject any and all bids; to waive irregularities therein and to accept whichever bid that may be in the best interest of the City. It is understood that this bid may not be withdrawn by the bidder until after thirty (30) days from bid opening.

In submitting the bid, the bidder acknowledges the bid guarantee will be forfeited to and become the property of the City of Grand Island, Nebraska, as liquidated damages should this bid be accepted and a contract be awarded to them and they fail to enter into a contract in the form prescribed and to furnish the required bonds within fifteen (15) days, but otherwise the aforesaid bid guarantee will be returned upon signing the Contract and delivering the approved bonds.

Insurance: Bidder acknowledges that their bid includes compliance with the attached insurance requirements.

The Bidder agrees to furnish the required performance and payment bond and to enter into a contract within fifteen (15) days after acceptance of this Bid, and further agrees to complete all work covered by the foregoing bid in accordance with specified requirements. No work shall commence until the Certificate of Insurance and bonds (when required) are approved by the City and the Contract is executed. The proposed work can commence after the Contract is signed and the required bond is approved.

A project schedule shall be provided within the bid submittal. The installation and commissioning shall be completed within 3 days.

\_\_\_\_\_ Initial

\*End of Bid Data Form\*

**CHECKLIST FOR BID SUBMISSION**

**FOR**

**ROGERS PUMPING STATION CONTROLS UPGRADE**

**Bids must be received by the City Clerk before 2:00 p.m. on Tuesday, September 13, 2022.**

The following items must be completed for your bid to be considered.

- Submittal of bid documents:
  - Option 1 – Mailing:** A signed original and three (3) copies of the bidding documents. Failure to submit the correct number of copies may result in your bid not being considered.
    - Note: Your certified check, cashiers check or bid bond should be clearly marked in a separate envelope attached to the signed original bid.
  - Option 2 – QuestCDN (online):** Purchase the bid specification through QuestCDN at their \$30.00 fee. Upload the signed original of the Bid Data Form, along with any supporting material required to meet the bid specification through QuestCDN. Upload your bid bond online through QuestCDN. *Bidders using Certified check or Cashiers' Check must mail said check and must be received by the office of the City Clerk no later than the scheduled bid opening date and time and clearly marked with the project name.*
- Bidders must complete and sign the Bid Data Form provided in these Documents. All blank spaces must be filled in. Bidders shall acknowledge receipt of any Addenda information on the Bid Data Form.
- Selection of Nebraska Sales Tax Option. If the Nebraska sales and use tax election is not filed or noted above, the Contractor will be treated as a retailer under Option 1 for sales and use tax purposes.
- A reference list of the Contractor shall be provided with at least three (3) projects of similar scope and complexity. The technicians/engineers shall have a minimum experience of (5) five years in industrial and automation controls.
- Firm lump sum pricing; firm unit pricing in case adjustments are necessary, and breakout of sales tax pricing.
- A proposed project schedule shall be provided. The installation and commissioning shall be completed within 3 days.
- A description of the system proposed, including equipment, controls, alarms and operation.
- A site visit is required.
- Exceptions to the specification or Owner's Contract Document.
- Acknowledgment of Addenda Number(s) \_\_\_\_\_.

*Please check off each item as completed to ensure compliance. If you have any questions, please feel free to contact our office prior to the bid opening date/time.*

## INSTRUCTIONS TO BIDDERS

### 1. GENERAL INFORMATION.

The following instructions outline the procedure for preparing and submitting Bids. Bidders must fulfill all requirements as specified in these Documents.

### 2. TYPE OF BID.

Bidders shall be required to submit prices for all items listed in the Bid Data Form.

### 3. PREPARATION OF BIDS.

Bidders shall use only the Bid Data Form provided in these Documents. All blank spaces in the Bid Data Form must be filled in, preferably in BLACK ink, in both words and figures where required. No changes to the wording or content of the forms is permitted. Written amounts shall govern in case of discrepancy between the amounts stated in writing and the amounts stated in figures.

Prices stated shall be f.o.b. with freight and full insurance paid by Bidder, to the job site located in Grand Island, Nebraska.

The Bidder shall acknowledge receipt of all Addenda in the Bid Data Form. Bids received without acknowledgement or without the Addendum enclosed will be considered informal.

Individual unit pricing as listed on the Bid Data Form or supplied as supplemental information may be deemed proprietary information and not be released under a public records request. The total amount of the bid is not considered proprietary information and will be released pursuant to City Procurement Code.

### 4. SUBMISSION OF BIDS.

All Bids must be submitted intact with the correct number of copies no later than the time prescribed, at the place, and in the manner set forth in the ADVERTISEMENT FOR BIDS. Bids must be made on the Bid Data Form provided herein. Each Bid mailed must be submitted intact in a sealed envelope, so marked as to indicate its contents without being opened, and delivered in person or addressed and mailed in conformance with the instructions in the ADVERTISEMENT FOR BIDS.

### 5. BID SECURITY.

Bids must be accompanied by cash, a certified check, or cashier's check drawn on a bank which is insured by the Federal Deposit Insurance Corporation, or a bid bond issued by a Surety authorized to issue such bonds in the state where the Work is located, in the amount of 5 percent of the bid amount payable to OWNER. This bid security shall be given as a guarantee that the Bidder will not withdraw their Bid for a period of **thirty (30) days after** bid opening, and that if awarded the Contract, the successful Bidder will execute the attached Contract within the time specified.

The Attorney-in-Fact that executes this bond on behalf of the Surety must attach a notarized copy of his/her power of attorney as evidence of his/her authority to bind the Surety on the date of execution of the bond. Where State Statute requires, certification by a resident agent shall also be provided.

6. RETURN OF BID SECURITY.

Within fifteen (15) days after the award of the Contract, the OWNER will return the bid securities to all Bidders whose Bids are not to be further considered in awarding the Contract. All other retained bid securities will be held until the Contract has been finally executed, after which all bid securities, other than Bidders' bonds and guarantees which have been fortified, will be returned to the respective Bidders whose Bids they accompanied.

7. BASIS OF AWARD.

The award will be made by the OWNER on the basis of the Bid from the lowest responsive, responsible Bidder which, in the OWNER's sole and absolute judgment will best serve the interest of the OWNER. All Bids will be considered on the following basis:

Delivery time	Conformance with the terms of the Bid
Bid price	Documents
Cost of installation	
Suitability to project requirements	Responsibility and qualification of Bidder

The OWNER reserves the right to reject all Bids, or any Bid not in conformance with the intent of the Bid Documents, and to waive any informalities and irregularities in said Bids.

8. EXECUTION OF CONTRACT.

The successful Bidder shall, within fifteen (15) days after receiving notice of award, sign and deliver to the OWNER the Contract hereto attached together as required in these Bid Documents. Within fifteen (15) days after receiving the signed Contract from the successful Bidder, the OWNER's authorized agent will sign the Contract. Signature by both parties constitutes execution of the Contract.

9. TIME OF COMPLETION.

The time of completion of the Work to be performed under this Contract is the essence of the Contract. The time allowed for the completion of the Work is stated in the Bid Data Form.

10. GRATUITIES AND KICKBACKS.

City Code states that it is unethical for any person to offer, give, or agree to give any City employee or former City employee, or for any City employee or former City employee to solicit, demand, accept, or agree to accept from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, or preparation of any part of a program requirement or a purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter, pertaining to any program requirement or a contract or subcontract, or to any solicitation or proposal therefor. It shall be unethical for any payment, gratuity, or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor or any person associated therewith, as an inducement for the award of a subcontract or order.

11. FISCAL YEAR.

The City of Grand Island, Nebraska operates on a fiscal year beginning October 1st and ending on the following September 30th. It is understood and agreed that any portion of this agreement which will be performed in a future fiscal year is contingent upon the City Council adopting budget statements and appropriations sufficient to fund such performance.



## CONTRACT AGREEMENT

THIS AGREEMENT made and entered into by and between **[SUCCESSFUL BIDDER]**, hereinafter called the Contractor, and the **CITY OF GRAND ISLAND, NEBRASKA**, hereinafter called the City.

WITNESSETH:

THAT, WHEREAS, in accordance with law, the City has caused contract documents to be prepared and an advertisement calling for bids to be published for *ROGERS PUMPING STATION CONTROLS UPGRADE*; and

WHEREAS, the City, in the manner prescribed by law, has publicly opened, examined, and canvassed the bids submitted, and has determined the aforesaid Contractor to be the lowest responsive and responsible bidder, and has duly awarded to said Contractor a contract therefore, for the sum or sums named in the Contractor's bid, a copy thereof being attached to and made a part of this Contract;

NOW, THEREFORE, in consideration of the compensation to be paid to the Contractor and of the mutual agreements herein contained, the parties have agreed and hereby agree, the City for itself and its successors, and the Contractor for itself, himself/herself, or themselves, and its, his/her, or their successors, as follows:

ARTICLE I. That the following documents shall comprise the Contract, and shall together be referred to as the "Agreement" or the "Contract Documents";

1. This Contract Agreement.
2. City of Grand Island's Specification for this project.
3. **[NAME OF SUCCESSFUL BIDDER]** bid signed and dated **[DATE OF BID]**.

In the event of any conflict between the terms of the Contract Documents, the provisions of the document first listed shall prevail.

ARTICLE II. That the Contractor shall (a) furnish all tools, equipment, superintendence, transportation, and other construction materials, services and facilities; (b) furnish, as agent for the City, all materials, supplies and equipment specified and required to be incorporated in and form a permanent part of the completed work; (c) provide and perform all necessary labor; and (d) in a good substantial and workmanlike manner and in accordance with the requirements, stipulations, provisions, and conditions of the Contract documents as listed in the attached General Specifications, said documents forming the Contract and being as fully a part thereof as if repeated verbatim herein, perform, execute, construct and complete all work included in and covered by the City's official award of this Contract to the said Contractor, such award being based on the acceptance by the City of the Contractor's bid;

ARTICLE III. That the City shall pay to the Contractor for the performance of the work embraced in this Contract and the Contractor will accept as full compensation therefore the sum (subject to adjustment as provided by the Contract) of **[DOLLAR AMOUNT] (\$00.00)** for all services, materials, and work covered by and included in the Contract award and designated in the foregoing Article II; payments thereof to be made in cash or its equivalent in the manner provided in the General Specifications.

The total cost of the Contract includes:

Base Bid: Materials	\$ .00
Base Bid: Labor	\$ .00
*Applicable Sales Tax:	<u>\$ .00</u>
Total	\$ .00

\*Contractor Tax Option: \_\_\_\_\_

The City of Grand Island, Nebraska operates on a fiscal year beginning October 1st and ending on the following September 30th. It is understood and agreed that any portion of this agreement which will be performed in a future fiscal year is contingent upon the City Council adopting budget statements and appropriations sufficient to fund such performance.

ARTICLE IV. The Contractor hereby agrees to act as agent for the City in purchasing materials and supplies for the City for this project. The City shall be obligated to the vendor of the materials and supplies for the purchase price, but the Contractor shall handle all payments hereunder on behalf of the City. The vendor shall make demand or claim for payment of the purchase price from the City by submitting an invoice to the Contractor. Title to all materials and supplies purchased hereunder shall vest in the City directly from the vendor. Regardless of the method of payment, title shall vest immediately in the City. The Contractor shall not acquire title to any materials and supplies incorporated into the project. All invoices shall bear the Contractor's name as agent for the City. This paragraph will apply only to these materials and supplies actually incorporated into and becoming a part of the finished product of the ROGERS PUMPING STATION CONTROLS UPGRADE.

ARTICLE V. That the Contractor shall start work as soon as possible after the Contract is signed and the required bonds and insurance are approved, and that the Contractor shall deliver the equipment, tools, supplies, and materials F.O.B. Platte Generating Station, and complete the work on or before **APRIL 15, 2023**.

ARTICLE VI. The Contractor agrees to comply with all applicable State fair labor standards in the execution of this Contract as required by Section 73-102, R.R.S. 1943. The Contractor further agrees to comply with the provisions of Section 48-657, R.R.S. 1943, pertaining to contributions to the Unemployment Compensation Fund of the State of Nebraska. During the performance of this Contract, the Contractor and all subcontractors agree not to discriminate in hiring or any other employment practice on the basis, of race, color, religion, sex, national origin, age or disability. The Contractor agrees to comply with all applicable Local, State and Federal rules and regulations. The Contractor agrees to maintain a drug-free workplace policy and will provide a copy of the policy to the City upon request. Every public contractor and his, her or its subcontractors who are awarded a contract by the City for the physical performance of services within the State of Nebraska shall register with and use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska.

ARTICLE VII. Gratuities and kickbacks: City Code states that it is unethical for any person to offer, give, or agree to give any City employee or former City employee, or for any City employee or former City employee to solicit, demand, accept, or agree to accept from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, or preparation of any part of a program requirement or a purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter, pertaining to any

program requirement or a contract or subcontract, or to any solicitation or proposal therefor. It shall be unethical for any payment, gratuity, or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor or any person associated therewith, as an inducement for the award of a subcontract or order.

**[SUCCESSFUL BIDDER]**

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

**CITY OF GRAND ISLAND, NEBRASKA**

By \_\_\_\_\_ Date \_\_\_\_\_  
Mayor

Attest: \_\_\_\_\_  
City Clerk

The Contract is in due form according to law and hereby approved.

\_\_\_\_\_  
Attorney for the City

\_\_\_\_\_  
Date

**DRAFT**

**REQUEST FOR BIDS - GENERAL SPECIFICATIONS**

The Bid shall be in accordance with the following and with all attached BID DATA and DETAILED SPECIFICATIONS.

All prices are to be furnished and installed FOB, Grand Island, Nebraska. **All prices shall be firm, and shall include all sales and use taxes as lawfully assessed under laws and regulations of the State of Nebraska.** \* If bidder fails to include sales tax in their bid price or takes exception to including sales tax in their bid price, the City will add a 7.5% figure to the bid price for evaluation purposes; however, the City will only pay actual sales tax due.

Mailed bids shall include the following on the **outside** of the mailing envelope: **“Rogers Pumping Station Controls Upgrade”**. All bids submitted by mail must include **an original and three copies** of the bid. The bid specification and on-line bidding forms are also available at <http://www.grand-island.com/business/bids-and-request-for-proposals/bid-calendar> under the bid opening date and “Click here for bid document link” through QuestCDN for a \$30.00 fee. If submitting through QuestCDN, **one** original document of the bid is required to be uploaded. No verbal bids will be considered. All sealed bids are due no later than **Tuesday, September 13, 2022 at 2:00 p.m. local time.** to:

Mailing Address: City Clerk  
City Hall  
P. O. Box 1968  
Grand Island, NE 68802-1968

Street Address: City Clerk  
City Hall  
100 E. First Street  
Grand Island, NE 68801

Bids will be opened at this time in the City Hall City Clerk’s Office located on 1<sup>st</sup> floor of City Hall. Any bid received after the specified date will not be considered.

Bids will be evaluated by the Purchaser based on price, schedule, quality, adherence to schedule, plan and specifications, economy and efficiency of operation, experience and reputation of the bidder, ability, capacity, and skill of the bidder to perform contract required and adaptability of the particular items to the specific use intended.

The successful bidder will be required to comply with fair labor standards as required by Nebraska R.R.S.73-102 and comply with Nebraska R.R.S. 48-657 pertaining to contributions to the Unemployment Compensation Fund of the State of Nebraska. Contractor shall maintain a drug free workplace policy. Every public contractor and his, her or its subcontractors who are awarded a contract by the City for the physical performance of services within the State of Nebraska shall register with and use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska.

# Rogers Pumping Station Controls Upgrade

## Request for Bids

### City of Grand Island – Platte Generating Station

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# Rogers Pumping Station Controls Upgrade

## Request for Bids - Detailed Specification City of Grand Island

### General Information

#### Brief Project Scope

The Grand Island Utilities Department is soliciting bids for upgrading a control system at one of our water distribution facilities. Rogers Pumping Station includes two (2) – three-million-gallon reservoirs that are used to distribute water throughout the City. There are three (3) centrifugal pumps that pump from the reservoirs. This facility is a vital asset to maintaining our city water pressure. The control hardware at this facility is dated and is maxed out on it is CIP node count. This has caused some communication issues over the past two years. The equipment needs an upgrade to mitigate communication failures and provide reliable and improved operation.

#### Location

The following address is where the project will take place:

Rogers Pumping Station  
3990 W. Old Potash Hwy.  
Grand Island, NE 68803

The location of the controls system at this site is in a climate-controlled building. This site is gated. Access to site will require permission. Access can be coordinated for the duration of the project at a future date.

#### Schedule

Access to Rogers Pumping Station is gated and locked. A detailed schedule with start times and end times shall be discussed to the awarded Contractor. There is only one gate to enter/exit the plant site. If any assistance is needed by plant personnel, it is limited to daytime normal working hours Monday through Friday 7:00 a.m. to 3:30 p.m.

A project schedule shall be provided within the bid submittal. The installation and commissioning shall be completed within three (3) days.

#### Site Visit

A site visit IS required. Site visits can be arranged by contacting Ryan Kruse (308) 385-5495.

#### Safety

The contractor shall follow all NFPA 70E standards at any time working around electrical equipment. The contractor shall abide by all OSHA regulations while on site.

## Qualifications

The Contractor shall be experienced in engineering industrial and automation control systems. The contractor shall provide three (3) recent projects of similar scope that shall be furnished with bid. The technicians/engineers performing the installation and commissioning on this project shall be qualified and have a minimum experience of five (5) years in industrial and automation controls.

## Coordination

The installation and commissioning will require Rogers Pumping Station to be Out of Service. A strict schedule will be discussed and agreed upon between Contractor and Owner, upon contract award. Contractor shall work with Owner's operation and engineering personnel to prevent or minimize problems with the water system. Owner reserves the right to request daily progress reports. Any delays, problems, emergency situations shall be brought to Owner's attention.

## Material, Equipment, and Services

The Owner shall provide construction power. All other tools, materials, equipment needed to perform installation and commissioning shall be provided by Contractor.

## Bids

The bids shall be held for up to 30 days.

Bids will be evaluated by the Owner based on price, schedule, quality, economy of operation, qualifications, availability of equipment and installation/commissioning services, adherence to specifications, company experience and adaptability of equipment used for this project. The Owner reserves the right to reject any proposals, all bids, waive informalities, and to accept whichever bid that may be in the best interest of the Owner, at its sole discretion.

## Submittals

In addition to the checklist for bid submission, the following details are required documents and items to be submitted with bid.

1. Provide a detailed description or listing of the material and services the Contractor proposes to furnish including all equipment, scope of design and engineering.
2. Include a description of any work that shall be completed by the owner or that shall be sub-contracted.
3. Provide a description of recommended construction plan requiring minimum plant outage duration, including recommended construction sequence, equipment installation requirements and degree of shop assembly.
4. Include a complete description of the equipment, design features, preliminary drawings, brochures, and bill of material.
5. Pricing shall include:
  - (a) All applicable material, equipment, licensing, and/or software.
  - (b) Labor
  - (c) Travel Expenses
  - (d) Living expenses
  - (e) Permits required
  - (f) All shipping, delivery, and handling of equipment, tools, and material used for

project shall be included in the bid.

- (g) Taxes NOTE: Platte Generating Station is not tax exempt and is subject to 7.5% sales tax. Refer to Nebraska Department of Revenue's web site: [www.revenue.state.ne.us](http://www.revenue.state.ne.us)

This pricing shall be itemized separately.

## Insurance

The contractor shall comply with the attached City's insurance requirements.

## Performance and Payment Bond

The successful Bidder shall file with the OWNER Performance and Payment Bonds in the full amount (100 percent) of the Contract price, as security for the faithful performance of the Contract and the payment of all persons supplying labor and materials for the Work under this Contract, and to cover all guarantees against defective workmanship or materials, or both, for a period of 1 year after the date of final acceptance of the Work by the OWNER. The Surety furnishing these bonds shall have a record of service satisfactory to the OWNER, be authorized to do business in the State where the OWNER's project is located and shall be named on the current list of approved Surety Companies, acceptable on Federal bonds as published by the Audit Staff, Bureau of Accounts, U.S. Treasury Department.

The Attorney-in-Fact (Resident Agent) who executes these bonds on behalf of the Surety must attach a notarized copy of his power-of-attorney as evidence of his authority to bind the Surety on the date of execution of the bond.

## Detailed Information

### Detailed Scope

The following provides information regarding the relays and scope of this project.

### Existing Equipment Details

The equipment that is currently installed that will be replaced is detailed in the control equipment and other equipment.

### Existing Control Equipment

The main equipment for the controls system is the Programmable Logic Controller (PLC) and associated I/O modules. The existing controller is an Allen Bradley 1747-L552B SLC 5/05 processor. Associated I/O modules include:

Quantity	Mfg. cat. #	Description
3	Allen Bradley: 1746SC-IA8I	Isolated 120VAC Discrete Input Module
1	Allen Bradley: 1746-IA16	120VAC Discrete Input Module
1	Allen Bradley: 1746-OA16	120VAC Discrete Output Module
2	Allen Bradley: 1746-NI8	Analog Input Module
1	Allen Bradley: 1746-NO8I	Analog Output Module
1	Allen Bradley: 1746-NT4	Thermocouple Input Module
1	Woodhead: SST-PFB-SLC	Profibus Interface



## Other Existing Equipment

There are numerous other electrical components associated with this control system. This includes terminal blocks, SPDT Relays, fusible terminal blocks, surge protector, power supplies, ethernet switch, and end anchors. Some of these components may be re-purposed in the upgrade. All the equipment listed is din rail mounted on a raised symmetrical rail 35mm X 7.5mm X 57.4mm.

The equipment is mounted in one-half of a 72" X 72" X 16" enclosure. This area will be re-used for the new control system. The other half of this enclosure includes the Uninterruptable Power Supply (UPS) system and network switches.

The switchgear utilizes two (2) Siemens 9300 power meters. The communication method for these power meters is Profibus-DP (decentralized periphery). The power meters are connected to the current controller via Profibus Interface card. This allows the monitoring of Voltage, Current, Power(kW), power factor (p.f.), kilowatt-hour(kWh), and megawatt-hours (MWh) for switchgear A and B. Each side of the switchgear has its own power meter.

Pump No.1 contains a Siemens 3UF50 SIMOCODE-DP motor protection device that also connects to the Profibus line. This provides overload protection for the motor.

## Existing System Control Details

The list below includes items that the control system controls and monitors. The control system controls and monitors necessary equipment associated with the pump station. Temperatures, pressure, levels, chlorine control and monitoring, pump motor currents, runtimes, starts, trips, MCC power monitoring, flow (instantaneous and totalizing), door alarms, valve pits, tagouts, motor speed (pump 2 & 3), and other digital/analog items.

The reservoirs are filled from a water line that runs from our well field. There is a valve for each reservoir that is controlled from this control system. The controls system at Rogers monitors the level of the reservoirs to mitigate potential for overflow.

Pump number one (1) is controlled by a soft-start. Pumps number two (2) and three (3) are controlled via variable frequency drive. The pumps can function in one of two modes: Auto or Manual. When in Auto, the selected pumps are controlled by a pressure setpoint through a PID loop. When pumps are selected to be in manual, a speed setpoint is given to the pumps.

A copy of the program and drawings will be provided during the site visit to ensure understanding of control system.

## New Equipment Details

The new hardware equipment requirements for this control system are detailed in this section. If equipment will be shipped to owner prior to installation and commissioning schedule, the shipping address is:

Platte Generating Station  
1035 W. Wildwood Dr.  
Grand Island, NE 68801  
Attention: Ryan Kruse

## Programmable Logic Controller and Associated Input and Output Modules

The programmable logic controller (PLC) and associated input and output modules shall be Allen Bradley. The AB controller must be capable of supporting at least 24 Ethernet/IP Nodes. The power supply that supports the controller and associated I/O shall only be at 50-60% capacity. Any incoming power to a device shall be protected by fuses or a din mount circuit breaker. The PLC lifecycle status should be in 'Active' standing. Two options must be provided for pricing:

<b>Option 1</b>	<b>Option 2</b>
(1) ControlLogix – (1756-L73)	(1) CompactLogix – (5069 Series)
(2) Chassis, ControlLogix, 13 slots	(2) Digital Input Module – (5069-IB16)
(1) Isolated Digital Input Modules (1756-IB16I)	(1) Isolated Digital Input Module (5069-IB8S)
(1) Digital Input Module (1756-IB16)	(1) Digital Output Module (5069-OB16)
(1) Digital Output Module (1756-OB16IEF)	(2) Analog Input Modules (5069-IF8)
(2) Analog Input Module (1756-IF16)	(1) Analog Output Module (5069-OF8)
(1) Analog RTD/Thermocouple Module (1756-IRT8I)	(1) Universal Voltage/Current/RTD/TC Analog Input Module (5069-IY4)
(1) Analog Output Module (1756-OF8)	**Minimum of (3) Spare Slots
(1) Power Supply, ControlLogix, (1756-PB)	

## Power Meters

The existing power meters that monitor switchgear A and switchgear B Voltage, Current, Power(kW), power factor (p.f.), kilowatt-hours(kWh), and megawatt-hours(MWh) shall be replaced with power meters of identical capabilities not limited to:

1. Phase current, phase-to-phase and phase-to-neutral voltage, watts, apparent power, reactive power, watt-hours, volt-ampere hours, power factor, frequency, and demand.
2. Optional features may be included such as logging, harmonic distortion, power quality, oscillography, etc.
3. The new power meters shall be compatible with existing Current Transformers (CTs) and Potential Transformers (PTs) with programmable adjustment.
4. Accuracy of  $\pm 0.2\%$  for voltage and current readings.
5. The power meters shall have Ethernet/IP communication capabilities to communicate with new PLC. Minimum of 1 RJ45 jack with status indicators.
6. Supply voltage shall be 120VAC.
7. Shall have a LED display to show selected readings.

## HMI Display (Optional)

There is an existing SCADA client located in the door of the control cabinet. This SCADA client offers full operation of our water system. This computer terminal is dated and needs an upgrade. The owner would like an operator interface to replace the existing terminal, as an option. The minimum requirement for this option is a PanelView Plus 7. The dimensions can be from 12.1" to 19". This terminal shall include an Ethernet port for communications on the network. The price of this product shall be included as an option. Along with the cost of the terminal, a cost of labor for programming shall be included for this option.

The terminal shall include graphics of Rogers Pumping Station Equipment. The following list is what shall be on the graphics terminal:

- Tank Level for both tanks

- High-level and low-level alarms.
- Pressure
  - Inlet and outlet
- Chlorine pump
  - Running, not running
- Chlorine residual
- Pumps 1, 2, and 3.
  - Running, not running, current, voltage, GPM, manual/auto, speed demand, etc.
- Tagouts of specific equipment
- Faults and trips
- Input GPM flow
- Output GPM flow
- Alarm inputs
- Settings page
- Building Temperatures
- Alarm summary
- Elevated Storage information

The graphics terminal shall be programmed with Factory Talk View Studio version 9. That is the version that the owner holds a license. A discussion between owner and contractor shall take place prior to programming to collaborate details regarding pages and operation.

## Installation and Commissioning

The following details shall be recognized during the installation and commissioning of the new control equipment.

### Terminations

1. All inputs and outputs shall be routed through terminal blocks.
2. The existing terminal blocks may be repurposed if they meet the following specifications.
  - a. Any new terminal blocks to be used shall be of screw type.
  - b. The digital outputs shall be routed through isolated (interposing) relays. These relays shall be solid-state.
  - c. All spare inputs and outputs from modules shall be routed to terminal blocks.
  - d. The analog inputs and outputs shall be protected by fuse blocks with properly sized fuses. The fuse blocks used shall have LED blown fuse indicator.
  - e. Terminal blocks shall not be within 6 inches of any side of the enclosure or Panduit wire channeling.
  - f. No more than two wires under one terminal and the terminal block must be rated for more than one wire.
  - g. All control wiring will be 24VDC.
  - h. Any instrumentation requiring AC must utilize an isolation (interposing) relay.
  - i. Exposed copper wire from insulation at all connections shall be kept to a minimum to mitigate potential hazards.

### Control wiring

The following details will provide requirements for the control wiring.

1. The control wiring shall be minimum of 16AWG, stranded copper wire, rated at 105°C(221°F), 300V.
2. Analog input and output wiring shall be of twisted shielded pairs. All control wiring shall be separated from any AC wiring as much as possible.
  - a. If control wiring must go in same channel as AC conductors, it must run perpendicular to each other.
3. All control wiring shall be identified with unique ID and color coordinated.
  - a. Separate colors for digital inputs, digital outputs, analog inputs, and analog outputs.
  - b. The labeling shall reflect from I/O module to point of termination. This labeling shall be identified in the drawings. The wire labels shall clearly indicate the input and output ID.
4. Polarity of 24VDC shall be identified on drawings and can be identified on wire labels.
5. Any Ethernet cables that are required shall be shielded Cat 6.

## Power Wiring

The power wiring shall comply with NEC 2020 codebook, IEEE standards, and properly sized for the equipment it serves. The following are additional requirements for the power wiring:

1. All AC wiring shall be minimum of 14 AWG, stranded copper wire, rated at 90°C(194°C), and 600V rating.
2. All AC conductors shall follow the 2020 NEC Code of identifying conductors.
  - a. If a color is used for AC, the same color cannot be used for DC control conductors. The color coding shall be referenced in drawings.

## Grounding

The following list represents requirements for grounding of the new equipment and system.

1. The system shall be properly grounded to earth ground potential.
2. A common grounding bus or terminal block shall create a bonding point for controls.
3. All chassis, equipment, frames, din rail, and other equipment requiring bonding to ground shall be included and follow manufacturer's instructions.
4. The twisted shielded pair for analog signals shall be grounded at the source end only.
  - a. If grounding at source end cannot be achieved – Grounding at the other end shall be acceptable if only one side of the cable is grounded.
    - i. Grounding twisted shielded pair at both ends can cause processor faults.

## Programming

### New Program

The new controller shall be programmed to reflect the existing program. The following items are additional requirements for the new program:

1. Rockwell Automations Studio 5000 Logix Designer shall be used for programming.
  - a. City of Grand Island uses Studio 5000 Logix Designer version 30.02.00. Program must be compatible with that version.
  - b. The preferred firmware revision on the ControlLogix is 20.15, if possible. If revision 20.15 is not possible. The revision must be compatible with the version of Studio 5000 Logix Designer version 30.02.00. There is no preferred firmware revision on the CompactLogix option, if selected. However, it must be compatible with Studio 5000 Logix Designer version 30.02.00.
2. Ladder logic and/or function block syntax.

- a. Proper labeling of rungs and tags shall be utilized.
- b. Provide descriptions of functionality for rungs in ladder logic and function blocks.
3. A list of tags for our SCADA system will be provided upon contract award. These tags will need to include an RPS prefix on each tagname.
4. Any changes required in the SCADA system will be performed by Owner.
5. Owner will be responsible for providing shielded Cat VI from the VFD's.
6. Program shall be IEC-61131 compliant.

## Program Changes

The following details the changes that shall be made to the new program from the old.

The old program includes hardwired Inputs and Outputs to Pump No. 2 and Pump No.3. Pump No. 2 now has a Yaskawa variable frequency drive (VFD), and Pump No. 3 is controlled by an Allen Bradley variable frequency drive (VFD). Both VFD's have Ethernet/IP networking capabilities and shall be utilized for new input and output control and monitoring. The following items shall be used via Ethernet/IP for each drive.

1. Digital Inputs (from the VFD)
  - a. Pump Running Feedback
  - b. Drive Fault
  - c. Overload Trip
  - d. Remote/Local Status
  - e. Communication Failure
2. Digital Outputs (to the VFD)
  - a. Start
  - b. Stop
3. Analog Inputs (from the VFD)
  - a. Elapsed kWh
  - b. Elapsed MWh
  - c. Speed Feedback
  - d. Current
  - e. Voltage
4. Analog Outputs (to the VFD)
  - a. Speed Demand

## Other Information

The Auto/Manual function shall be identical in functionality to the existing Auto/Manual control. There is no speed control on pump No. 1. With two pumps controlled by VFD's and being close in proximity, only one VFD shall be controlled by the PID and the other VFD will maintain a set speed.

## Documentation

The list below details the required documents to be delivered to the City of Grand Island Utility Department after completion of the project.

1. Hardcopy and electronic copy (pdf) user manuals for the associated equipment.
2. Hardcopy and electronic copy (pdf or .dwg) drawings.
3. Detailed configuration and settings.
4. Maintenance and testing recommendations.
5. References and calculations used to determine control settings.
6. All files pertaining to the new Program.

**REQUEST FOR BIDS - SITE CONDITIONS**

**ROGERS PUMPING STATION CONTROLS UPGRADE**

**Site Visit:** Bidders shall visit the site in order to inform themselves of the conditions under which the work is to be performed, concerning the site of the work, the nature of the existing facilities, the obstacles which may be encountered, the sequence of the work, and all other relevant matters concerning the work to be performed. No extra compensation shall be allowed by reason of the failure of such bidder to fully inform themselves of said site conditions prior to the bidding. The Contractor shall employ, so far as possible, such methods and means in the carrying out of their work as will not cause any interruption or interference with the City's operations and any other contractors.

A site visit may be arranged by contacting Ryan Kruse at (308) 385-5495.

Signature of person visiting site: \_\_\_\_\_

Signature of Utilities personnel witnessing visit: \_\_\_\_\_

Date of Visit: \_\_\_\_\_

**MINIMUM INSURANCE REQUIREMENTS**  
**CITY OF GRAND ISLAND, NEBRASKA**

The successful bidder shall obtain insurance from companies authorized to do business in Nebraska of such types and in such amounts as may be necessary to protect the Bidder and the interests of the City against hazards or risks of loss as hereinafter specified. This insurance shall cover all aspects of the Bidder's operations and completed operations. Failure to maintain adequate coverage shall not relieve Bidder of any contractual responsibility or obligation. Minimum insurance coverage shall be the amounts stated herein or the amounts required by applicable law, whichever are greater.

**1. WORKERS COMPENSATION AND EMPLOYER'S LIABILITY**

This insurance shall protect the Bidder against all claims under applicable State workers compensation laws. This insurance shall provide coverage in every state in which work for this project might be conducted. The liability limits shall not be less than the following:

Workers Compensation	Statutory Limits
Employers Liability	\$100,000 each accident
	\$100,000 each employee
	\$500,000 policy limit

**2. BUSINESS AUTOMOBILE LIABILITY**

This insurance shall be written in comprehensive form and shall protect the Bidder, Bidder's employees, or subcontractors from claims due to the ownership, maintenance, or use of a motor vehicle. The liability limits shall not be less than the following:

Bodily Injury & Property Damage	\$ 500,000 Combined Single Limit
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**3. COMPREHENSIVE GENERAL LIABILITY**

The comprehensive general liability coverage shall contain no exclusion relative to explosion, collapse, or underground property. The liability limits shall not be less than the following:

Bodily Injury & Property Damage	\$ 500,000 each occurrence
	\$1,000,000 aggregate

**4. UMBRELLA LIABILITY INSURANCE**

This insurance shall protect the Bidder against claims in excess of the limits provided under employer's liability, comprehensive automobile liability, and commercial general liability policies. The umbrella policy shall follow the form of the primary insurance, including the application of the primary limits. The liability limits shall not be less than the following:

Bodily Injury & Property Damage	\$1,000,000 each occurrence
	\$1,000,000 general aggregate

**5. ADDITIONAL REQUIREMENTS**

The City may require insurance covering a Bidder or subcontractor more or less than the standard requirements set forth herein depending upon the character and extent of the work to be performed by such Bidder or subcontractor.

Insurance as herein required shall be maintained in force until the City releases the Bidder of all obligations under the Contract.

The Bidder shall provide and carry any additional insurance as may be required by special provisions of these specifications.

## **6. CERTIFICATE OF INSURANCE**

Satisfactory certificates of insurance shall be filed with the City prior to starting any work on this Contract. **The certificates shall show the City as an additional insured on all coverage except Workers Compensation. The certificate shall state that thirty (30) days written notice shall be given to the City before any policy is cancelled (strike the "endeavor to" wording often shown on certificate forms). If the Bidder cannot have the "endeavor to" language stricken, the Bidder may elect to provide a new certificate of insurance every thirty (30) days during the contract. Bidder shall immediately notify the City if there is any reduction of coverage because of revised limits or claims paid which affect the aggregate of any policy.**