City of Grand Island

Tuesday, April 24, 2012

Council Session

Item G4

#2012-103 - Approving Bid Award - Well Field Control System Upgrade

Staff Contact: Tim Luchsinger

Council Agenda Memo

From: Timothy G. Luchsinger, Utilities Director
Jason Eley, Assistant City Attorney

Meeting Date: April 24, 2012

Subject: Well Field Control System Upgrade

Item #'s: G-4

Presenter(s): Timothy G. Luchsinger, Utilities Director

Background

The City's municipal water system is supplied primarily from its Platte River Well Field. This well field is comprised of 21 wells and a pumping station. Testing for State regulatory requirements indicated composite uranium levels to be approaching the Maximum Containment Level (MCL) established by the EPA. Uranium is not an acute concern but rather is a chronic concern over a lifetime of exposure, and sampling and testing of the Grand Island water system thus far show full compliance with the EPA regulation. Testing of individual wells for uranium has indicated most wells exceed this MCL. To allow use of these wells during high water system demand periods, additional piping was installed in the past year for blending with lower uranium concentration wells.

Recent testing of uranium concentrations in the wells indicated a trend towards increasing levels, reducing the effectiveness of well blending to reduce overall levels, therefore, based on Department recommendations, the Utilities Department was authorized by Council on February 22, 2011, to proceed with the procurement and installation of the large-scale pilot uranium removal system. Based on the multiple phase structure of the uranium engineering services RFP, HDR, the City's consultant on this project, was requested to provide a proposal for preparing specifications to issue for bids for an adsorptive media pilot plant. On June 28, 2011, Council awarded the contract for the Uranium Removal System – Equipment Procurement to Water Remediation Technology.

On August 23, 2011, Council approved the proposal of HDR Engineering, Inc., of Lincoln, Nebraska, for Uranium Removal Water Plant – Task Order No. 2. This task order authorized the detailed engineering services which included preparation of specifications for bidding of a new building and foundations, underground piping, well modifications, and installation of the uranium removal equipment. As part of these

engineering services, HDR developed the specifications for the pump modifications of well field wells and installation of the uranium removal system equipment.

On February 14, 2012 City Council approved the contract for the Uranium Removal Water Treatment Plant – Equipment Installation and Pump Modifications to Judds Brothers Construction. The final phase of this project is integration of the Uranium Removal Water Treatment Plant into the SCADA system, which is the computer system which controls and monitors the wells, pumps, and reservoir levels.

Discussion

The specifications for the Well-Field Control System Upgrade were advertised and issued for bid in accordance with the City Purchasing Code. Bids were publicly opened on April 11, 2012. Specifications were sent to four potential bidders and responses were received as listed below. The engineer's estimate for this project was $185,000.00.

Bidder	Bid Price
Huffman Engineering, Inc., Lincoln, NE	$ 147,290.00

Using pricing included in the bid, the specified performance bond was added for $3,145.00 and the requirement for drawing submittals was waived at a deduct of $4,500.00, for an adjusted bid price of $145,935.00. The bid was reviewed by plant engineering staff, and otherwise found compliant with the specifications and less than the engineer's estimate.

Alternatives

It appears that the Council has the following alternatives concerning the issue at hand. The Council may:

1. Move to approve
2. Refer the issue to a Committee
3. Postpone the issue to future date
4. Take no action on the issue

Recommendation

City Administration recommends that the Council award the Contract for Well-Field Control System Upgrade to Huffman Engineering, Inc., of Lincoln, Nebraska, as the low responsive bidder, in the amount of $145,935.00.

Sample Motion

Move to approve the bid from Huffman Engineering, Inc., for the Well-Field Control System Upgrade in the amount of $145,935.00.

Purchasing Division of Legal Department
INTEROFFICE MEMORANDUM

CITY OF GRAND ISLAND

Jason Eley, Purchasing Agent

Working Together for a Better Tomorrow, Today

BID OPENING

BID OPENING DATE:	**April 11, 2012 at 2:00 p.m.**
FOR:	**Well-Field Control System Upgrade**
DEPARTMENT:	**Utilities**
ESTIMATE:	**$185,000.00**
FUND/ACCOUNT:	**525**
PUBLICATION DATE:	**April 3, 2012**
NO. POTENTIAL BIDDERS:	**4**

SUMMARY

Bidder:	**Huffman Engineering, Inc.**
	Lincoln, NE
Bid Security:	**Developers Surety & Indemnity Co.**
Exceptions:	**Noted**
Bid Price:	
Material:	**$78,000.00**
Labor:	**$65,000.00**
Sales Tax:	**$ 4,290.00**
Total Bid:	**$147,290.00**

cc: Tim Luchsinger, Utilities Director
Jason Eley, Purchasing Agent
Mary Lou Brown, City Administrator
Karen Nagel, Utilities Secretary
Bob Smith, Assist. Utilities Director
Pat Gericke, Utilities Admin. Assist.
Lynn Mayhew, Assist. Utilities Director

P1552

CHECKLIST FOR BID SUBMISSION

FOR

WELL-FIELD CONTROL SYSTEM UPGRADE

Bids must be received by the City Clerk before *2:00 p.m. on Wednesday, April 11, 2012.*

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

- [x] A signed original and three copies of the bidding documents.
- [x] A reference list of at least three projects of similar scope and complexity.
- [x] A summary of the experience of the service supervisor proposed for this project.
- [x] Firm lump sum pricing; firm unit pricing in case adjustments are necessary, and breakout of sales tax pricing.
- [x] A proposed construction/test schedule.
- [x] A description of the system proposed, including equipment, controls, alarms and operation.
- [x] Selection of Nebraska Sales Tax Option.
- [x] Acknowledgment of Addenda Number(s) 1.
- [x] 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.
- [x] A certified check, cashiers check or bid bond 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 in clearly marked and separate envelopes will result in your bid not being opened.

Please check off each item as completed.

Huffman Engineering Inc.
Company

Signature

Telephone No. 402-464-6823

Fax No. 402-464-6892

City of Grand Island
Utilities Department
Platte Generating Station
1035 West Wildwood Drive
Grand Island, NE

City of Grand Island Well-Field Control System Upgrade

Proposal Number WW073 April 11, 2012

HUFFMAN ENGINEERING INC.

5301 North 57th Street,
Lincoln, NE 68507
(402) 464-6823
Fax (402) 464-6892
info@huffmaneng.com

REVISION HISTORY

Initial Issue: April 11, 2012

PROJECT INTRODUCTION

This **Firm Fixed Price** proposal outlines the services and equipment Huffman Engineering Inc. (HEI) will provide the City of Grand Island Utilities Department for integrating the Well-Field Control System Upgrade Project.

This proposal is based upon the following information. Any deviation from this information will be evaluated for impact to the project cost and schedule, and may consequently result in change orders.

Proposal Information / Documentation

- Specifications
  - CITY OF GRAND ISLAND – SPECIFICATION PACKAGE FOR WELL-FIELD CONTROL SYSTEM UPGRADE – March 30, 2012
- Customer Supplied Addendum (s)
  - ADDENDUM No. 1 - April 4, 2012

PROJECT QUALIFICATION

Huffman Engineering Inc. (HEI) meets the project qualification requirements listed in the specifications by having the following accreditations:

- HEI is an approved manufacturer of industrial control panels by the Underwriters Laboratories (UL).
- HEI is an approved 'Rockwell Automation Process Systems Integrator'.
- HEI is a certified member of the Control System Integrators Association (CSIA).

SPECIFICTION REFERENCE: "PART 1: SECTION 1.3.2 Vendor Requirements"

- "The Vendor shall be an approved manufacturer of UL listed industrial control panels, complying with UL 508A."
- "The vendor shall be accredited as a recognized 'Rockwell Automation Process System Integrator'."
- "The Vendor which implements the system shall be a certified member of the Control System Integrators Association (CSIA)."

PROJECT DESCRIPTION

Project Summary

The purpose of this project is to implement an upgraded control system using Allen-Bradley automation hardware and Rockwell Software to control the Platte River Well-Field system for the Grand Island Water Utility. The existing control system is outdated, and in some cases, the hardware and software may be obsolete. Therefore, this upgraded control system has been designed to provide reliable control, system information, enhanced capabilities, and a long service life.

Scope of Work

The scope of work to be performed by Huffman Engineering is based on information listed in the Specification, as indicated above in "Proposal Information / Documentation".

The following items are included in Huffman Engineering Inc. scope of work as detailed in the appropriate sections of this proposal.

- Engineering design necessary to complete the modifications to the Platte River Well-Field Control System as indicated herein.
- PAC configuration
- HMI screen development
- Control Panel Assembly
- System I/O checkout, operator training and startup as described
- Documentation as described herein

Any deviation from this information will be evaluated for impact to the project cost and schedule, and may consequently result in change orders.

Scope of Work Exclusions

The scope of the work to be performed by Huffman Engineering does not include the following:

- Uranium Removal Facility Integration (only an Ethernet communication interface is provided)
- Well House mechanical changes or VFD installation (only VFD configuration is provided).
- Any instrumentation
- Reporting or reporting configurations (reporting will be performed in the main facility by the Owner)

Change Orders

Any deviation from this proposal including additional materials and services will be evaluated for impact to the project cost and schedule, and may consequently result in change orders. Change orders require customer approval before implementation and will

be billed fully (100%) on receipt of the change order. Change orders will include but are not limited to:

- Functional changes
- Equipment changes
- Schedule changes

Change orders will be invoiced based on the rates listed under the Pricing section of this proposal.

Assumptions

This proposal is based upon the following assumptions:

- All existing instrumentation is in full and proper working order. HEI will not modify, calibrate, or be required to troubleshoot any instrumentation.
- All radio equipment is in full and proper working order. HEI will not be required to repair any radios.
- All existing Modicon equipment (PLC, I/O modules, communication modules, etc.) shall be removed and not re-used. HEI will take possession of all the existing Modicon equipment (in the Pump Station and each of Wells 6, 7, and 8) in order to turn the equipment in for rebates on the new Allen Bradley hardware. This proposal already includes pricing for this assumption. Therefore, if HEI is not allowed to take possession of the existing Modicon equipment and turn it in for a rebate, a change order will be required to make up the difference in pricing. HEI will retain the rebate funds since the price break has already been included in this proposal.
- No instrumentation is provided with this proposal.
- Labor and equipment not specifically described in this proposal are not included in the quoted price below.
- Reasonable Plant access will be granted to approved HEI personnel to allow for design, installation, and testing functions. HEI personnel will be allowed to work on-site on the system, during this project, at any hour of the day and any day of the week, at the discretion of HEI. HEI assumes there will be full access to the Well-Field area, without Owner direct supervision required. HEI assumes the Owner will give HEI a key to the main gate (at the road entrance) and also a key for the Pump Station and Well Houses so approved HEI personnel can have access as needed during the project.
- The Owner will schedule and provide safety training for HEI employees as necessary.
- No valves are included with this proposal.
- No HVAC components or HVAC controls are provided in this proposal
- No VFD's are included in this proposal
- No selector switches are provided
- No motor starters are included in this proposal
- No HMI reporting (or Historian) software is provided
- A desk and chair for the HMI terminal at the Pump Station shall be provided by Owner.

- No additional I/O points are assumed to be required, other than what is shown on the specification documents. Any additional I/O points may result in a change order.
- The Main PLC Control Panel enclosure in the Pump Station will not require any additional internal environmental conditioning inside the enclosure by HEI. It is assumed (and necessary) that the Owner install air conditioning in the control room where the panel will be located.
- Ethernet Cabling to VFD in each Well House is by others.
- No field wiring modification to Well Houses will be made.
- No antenna, cabling, or power supply for Ethernet radios will be provided for the Pump Station or any Well Houses.
- Power for the Ethernet radio in the WRT building is provided by others.
- The Ethernet radio in the WRT shall be mounted on the wall or in an existing enclosure. HEI shall not be required to provide an enclosure for any radios.
- No surge suppression is provided for I/O points. It is assumed that all I/O in the Pump Station is inside of the Pump Station Building envelope, and all Well House I/O is inside the Well House Building envelope.

System Architecture

The control system will consist of an Allen-Bradley ControlLogix PAC at the Pump Station, which will replace the existing Modicon controller, as well as a new Wonderware HMI terminal. Well Houses 6, 7, and 8 will have new CompactLogix PAC's which will replace the existing Modicon Momentum controllers. The CompactLogix PAC's will interface with the new VFD's (by others) at each of Wells 6, 7, and 8.

- The Programmable Automation Controller in the Pump Station will be an Allen-Bradley ControlLogix based system housed in a NEMA type 12 enclosure.
- The HMI at the Pump Station will be a Dell desktop computer operating a Wonderware HMI application with Ethernet communication.
- The communication hardware will consist of:
  - Ethernet radios in the Pump Station, Well Houses, and Uranium Facility.
  - One 5-port Rockwell Stratix 2000 switch and one 8-port 6000 switch with IGMP snooping, at the Pump Station. This switch will be mounted in the main control cabinet. Note: This switch is required to provide communication from the PLC to the computer, and the plant computers. IGMP snooping is required to prevent multicast traffic from getting back to the plant network.
  - One 5-port Rockwell Stratix 2000 switch at each of Well Houses 6, 7, and 8 to interface with the PAC, VFD (by others), and Ethernet radio.

HEI Supplied Labor

- Engineering time for design and project management
- Engineering time for PAC configuration
- Engineering time for HMI configuration
- On-Site technician time for panel installation and wiring of new control panel in Pump Station

- On-Site technician time for PAC and Ethernet switch installation in each of Wells 6, 7, and 8
- On-Site engineering and technician time for I/O check out, startup, and debug
- On-Site engineering time for commissioning and testing
- Note: Combined startup labor is not to exceed 60 engineering hours and 60 technician hours. Maximum trips to on-site location for startup are not to exceed 10 trips. Any additional trips or hours of labor will be billed additionally as a change order.

HEI Supplied Equipment / Hardware

This proposal includes materials, hardware and labor to fabricate one new control panel at the Pump Station, 3 new PAC's (one at each of Well Houses 6, 7, and 8), one desktop HMI computer at the Pump Station, and one Ethernet radio.

A. Equipment for new Main PAC Control Panel at the Pump Station

This is an estimated BOM and may change based on an actual I/O count and final design.

- One (1) Hoffman, NEMA 4 (assembled to NEMA 12 standards), enclosure with back panel. The panel is to be located in the Pump Station control room, which is air conditioned by others.
- One (1) Allen-Bradley ControlLogix PAC processor (1756-L71)
- One (1) Allen-Bradley 17-Slot ControlLogix PAC chassis
- One (1) Allen-Bradley ControlLogix PAC power supply
- One (1) Allen-Bradley Ethernet I/P communications module (1756-EN2T)
- One (1) Allen-Bradley ControlLogix Input Module, 32-pt, OR One (1) 16-pt
- One (1) Allen-Bradley ControlLogix Output Module, 32-pt, OR One (1) 16-pt
- One (1) Allen-Bradley ControlLogix Analog Input Module, 16-pt
- One (1) Allen-Bradley ControlLogix Analog Output Module, 4-pt
- One (1) Allen-Bradley Stratix 6000 Ethernet switch (1783-EMS08T)
- One (1) Allen-Bradley Stratix 2000 Ethernet switch (1783-US05T)
- One (1) 15-amp circuit breaker
- One (1) Control power surge suppressor
- One (1) 24VDC power supply
- One (1) Pushbutton (black) for 'Silence Alarm' function
- One (1) Alarm horn, to be mounted in main room of Pump Station
- One (1) Alarm light (yellow), to be mounted in main room of Pump Station
- Lot – relays, terminal blocks, fused terminal blocks, fuses, ground bar, wire and wire labels etc.

B. Pump Station Computer and Operator Interface (HMI)

- One (1) Dell desktop computer per Specification

C. Additional Pump Station Equipment

- One (1) Allen-Bradley Point I/O Ethernet Interface Module
- Seven (7) Allen-Bradley Point I/O Thermocouple Input Modules, 7pt
- Seven (7) Allen-Bradley Point I/O Terminal Bases
    - NOTE: HEI RESERVES THE RIGHT TO USE POINT I/O MODULES TO INTERFACE WITH THE EXISTING THERMOCOUPLE WIRING THAT IS CURRENTLY TERMINATED IN THE OLD MODICON ENCLOSURE, AT HEI'S DISCRETION. HEI PROPOSES THAT THIS EXISTING ENCLOSURE REMAINS, AND THAT ALLEN BRADLEY POINT I/O BE MOUNTED IN THIS ENCLOSURE TO REDUCE LABOR AND HARDWARE. THIS PROPOSAL ASSUMES THAT HEI HAS THE OPTION TO PROVIDE EITHER POINT I/O MODULES IN THE EXISTING ENCLOSURE OR CONTROLLOGIX MODULES IN THE NEW PANEL. THIS DECISION WILL BE EVALUATED BASED ON COST, INSTALLATION AND EASE OF USE FOR THE OWNER.

D. Equipment for Well Houses (quantities are typical of 3 Wells – 6, 7, and 8)

- One (1) Allen-Bradley CompactLogix PAC processor (1769-L16ER-BB1B)
- One (1) Allen-Bradley Point I/O 2-channel Analog Input Module
- One (1) Allen-Bradley Point I/O 2-point Discrete Input Module
- One (1) Allen-Bradley Ethernet switch (1783-US05T)
    - NOTE: THIS PROPOSAL DOES NOT INCLUDE ANY HIGH SPEED COUNTER MODULES.

E. Additional Equipment

- One (1) Data-Linc Ethernet Radio (SRM-6220)

F. Spares

- One (1) Allen-Bradley ControlLogix PAC processor (1756-L71)
- One (1) Allen-Bradley ControlLogix Input Module, 32-pt, OR One (1) 16-pt
- One (1) Allen-Bradley ControlLogix Output Module, 32-pt, OR One (1) 16-pt
- One (1) Allen-Bradley ControlLogix Analog Input Module, 16-pt
- One (1) Allen-Bradley ControlLogix Analog Output Module, 4-pt
- Lot, spare fuses and terminal blocks

HEI Supplied Software

- One (1) Rockwell Logix 5000 development software, Full Edition, English (9324-RLD600ENE)
- One (1) Wonderware, InTouch 2012 Runtime license, 3000 tag, with I/O

HEI Supplied Travel

This proposal does include travel and expenses for HEI employees to and from the Grand Island facility in Grand Island, Nebraska.

HEI Supplied Documentation

- Hardware and software submittals
- O&M Manuals
- Drawings/schematics

Labor Supplied by Others

- VFD installation and wiring (including Ethernet cabling to PAC panel)
- Uranium Removal Facility Installation

SCHEDULE

Currently the estimated timetable for this project for substantial completion is June 30, 2012, based on purchase order date from the Owner on or before April 12, 2012. The proposed schedule is based on the 'Sequence of Work' section of the Control System Vendor Specification document. It is estimated that installation will begin in early June to complete the specified timeline.

Construction Schedule – April 12, 2012 through June 22, 2012.

Testing Schedule – June 22, 2012 through June 30, 2012.

PRICING INFORMATION

Base Project Price

Description	Price	Sales Tax (5.5%)	Total
Base Price - Materials	$78,000.00	$4,290.00	$82,290.00
Base Price - Labor	$65,000.00	$0.00	$65,000.00
Base Totals	$143,000.00	$4,290.00	**$147,290.00**

Optional ADDITIONS

The following table lists some optional additions, which can be exercised/added at the discretion of the Owner.

Description	Price
Performance Bond	$3,145.00
Total Optional ADDITIONS	$3,145.00

Optional DEDUCTIONS

The following table lists some optional deductions, which can be exercised/deducted at the discretion of the Owner. If the Owner exercises any of these options then the hardware and/or labor will not be provided for that specific option, and the price will be reduced accordingly.

Description	Price	Sales Tax (5.5%)	Total
DEDUCTION Option 1 – Spare Parts	$8,000.00	$ 440.00	$8,440.00
DEDUCTION Option 2 – Submittals	$4,500.00	$ 0.00	$4,500.00
Total Optional DEDUCTIONS	$12,500.00	$ 440.00	$12,940.00

- The amounts specified include sales tax. As the Specification indicates, the work is to be completed outside of the city limits.
- This price is valid for 60 days. Past due accounts are subject to a service charge of 1.5% per month or the maximum permitted by law.
- The above price is FOB Huffman Engineering, Inc. Lincoln, Nebraska, prepaid and billed.
- All change requests after the acceptance of this proposal will be evaluated for impact to project cost and schedule, and may consequently result in change orders.

- Time spent on-site due to equipment not ready, errors in fabrication, field wiring, or any other circumstance beyond our control will be invoiced at the appropriate rate plus expenses.
- In the event an order is cancelled, the Owner acknowledges that HEI will immediately cease all work on the project and prepare final project costs based upon material costs and person-hours expended from the commencement of the project until the date of cancellation.
- In no case will work on this project extend beyond 1 year from date of purchase order. Work beyond the cutoff date will require evaluation for possible change order for additional costs.

Rates

- Billing for services rendered for Time and Material projects or change orders will be based on the actual hours worked or agreed payment schedule and includes:
  - All time spent at Huffman Engineering, Inc., offices working directly on the client's project.
  - All time spent at the client's site(s).
  - Travel time incurred during the normal workday (up to 8 hours per day).
  - Travel time required on Saturdays, Sundays, and/or Huffman Engineering holidays to meet the client's requested schedule (up to 8 hours per day) will be billed at overtime rates.
  - Overtime rates are:
    - Hourly base rate x 1.5 for requested and approved overtime work beyond 8 hours per day, work starting before 7:00 A.M. local time or after 5:00 P.M. local time, and work required on Saturdays.
    - Hourly base rate x 2.0 for requested and approved overtime work beyond 12 hours per day or work on Sundays or Huffman Engineering holidays.
  - Travel costs (coach class, if available), $34 daily expense allowance, and other (IRS allowed) living expenses will be billed as incurred and/or as soon as Huffman Engineering is billed for them. Rental equipment or other costs will be billed at cost plus a 7.5% handling charge. Automobile mileage will be charged at $0.50 (50¢) per mile.
- Rates for services provided by Huffman Engineering, Inc., are:
  - Engineer $135/hour
  - Programmer $135/hour
  - Technician $85/hour
  - CAD Technician $55/hour
  - Clerical $45/hour
- Rates for services provided by Huffman Engineering, Inc., are:

- Materials Received Cost + 15%
- Freight Cost + 15%

- These rates will be increased by 25% for projects requiring startup on short notice, rescheduling of existing commitments, assignments that are characterized by a series of short, intermittent, or unscheduled consultations or other unusual mobilization efforts.
- The following records will be made available for client audits:
  - Specific cost details of all charges other than direct labor and equipment costs (vendor invoices, travel and living vouchers, etc).
  - Actual time sheets and/or labor distribution records of Huffman Engineering staff billed to the client. This will allow an audit and verification of the actual hours worked by each individual in each classification for the services rendered. The billing rates are determined at the beginning of the contract and are not negotiable or subject to audit.
- Projects taken on a time and materials basis with a fixed ceiling will be done on a best effort basis. Huffman Engineering will make its best effort to complete the work within the ceiling but will not be obligated to expend a greater level of effort than can be covered by committed funds at the specified rates. Changes to the original scope of work will be billed under a separate Huffman Engineering job number and will be added to the original cost.
- Invoices will be rendered bi-weekly and at the end of the project, and shall be payable within 15 calendar days of the billing date.
- Realizing that the value of the product(s) produced by any proposed system will far exceed the cost of the material and labor, Huffman Engineering, Inc., does not expect any compensation nor assume any liability beyond the labor and materials provided by Huffman Engineering, Inc. Huffman Engineering, Inc. will not be held liable for any consequential damages.

Payment Terms

20%	Mobilization
70%	Billed monthly based on percent of completion
10%	Upon final completion

PROPOSAL ACCEPTANCE

To accept this proposal, please return a written contract, written purchase order, written notice to proceed or fill in the purchase order number, initial next to the base proposal and all options to purchase, then sign and return it to HEI.

Purchase order number: _____

BASE PROJECT PRICE

Description	Price	Sales Tax (5.5%)	Total
Base Price - Materials	$78,000.00	$4,290.00	$82,290.00
Base Price - Labor	$65,000.00	$0.00	$65,000.00
Base Totals	$143,000.00	$4,290.00	**$147,290.00**

OPTIONAL ADDITIONS

The following table lists some optional additions, which can be exercised/added at the discretion of the Owner.

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Total Optional ADDITIONS	$3,145.00

OPTIONAL DEDUCTIONS

The following table lists some optional deductions, which can be exercised/deducted at the discretion of the Owner. If the Owner exercises any of these options then the hardware and/or labor will not be provided for that specific option, and the price will be reduced accordingly.

Description	Price	Sales Tax (5.5%)	Total
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DEDUCTION Option 2 – Submittals	$4,500.00	$ 0.00	$4,500.00
Total Optional DEDUCTIONS	$12,500.00	$ 440.00	$12,940.00

Prepared By: Huffman Engineering Inc.

Justin Korver

April 11, 2012

Date

Project Manager

Accepted by:

Date

PROJECT REFERENCE LIST

Huffman Engineering, Inc.
5301 N 57th Street
Lincoln, NE 68507
Phone: (402) 464-6823
Fax: (402) 464-6892

Below is a summary of projects of similar scope and complexity.

PROJECT: Upgrade SCADA System
END CUSTOMER: City of Grand Island Nebraska
LOCATION: Grand Island, NE
VALUE: $287,500
YEAR COMPLETE: 2010

DESCRIPTION: The City of Grand Island needed to replace an existing obsolete TI/Siemens 505 base SCADA system with a new PLC based system with minimal downtime, local support and at a reasonable cost. The system was designed for future expansion including the Aerated Static Pile Composting Complex, the Anaerobic Digestion Complex, and other projects. Huffman Engineering provided the following services: Engineering evaluation and recommendation; Design of the control system (including drawings and bid documentation); Installation oversight and integration services; training. The design standardized on I/O cards and isolation relays where AC outputs were used. The system is operational at this time.

PROJECT: Papillion Creek WWTP – Digester System Modifications
END CUSTOMER: City of Omaha
LOCATION: Omaha, NE
VALUE: $211,000
YEAR COMPLETE: 2012

DESCRIPTION: The City of Omaha required modifications to the digester complexes at their Papillion Creek Wastewater Treatment Plant. Huffman Engineering, Inc. provided engineering controls design and implementation for adding a new ControlLogix control panel to replace an older PLC5 control panel. The project included design, instrumentation, panels, installation, HMI and PLC configuration, and project management.

PROJECT: BD-Broken Bow- Cup Bagger Line
END CUSTOMER: Becton Dickinson
LOCATION: Broken Bow, Nebraska
VALUE: $631,000
YEAR COMPLETE: 2009

DESCRIPTION: Becton Dickinson in Broken Bow, Nebraska manufactures fluid sampling kits for the pharmaceutical industry. Two existing packaging lines that bag and box kits used for collecting and analyzing samples were required to be updated to increase efficiency and output. Huffman Engineering Inc. provided a new control system layout for these two separate packaging

lines receive individual items, place them into a bag and seal them, and then place the sealed bags into boxes to be shipped. The new systems used Allen Bradley ControlLogix PAC's for control and RSView ME stations for operator interfaces. The new lines doubled the output and efficiency of the existing lines.

PROJECT: BMS Film Coater Controls for 7 Machines
END CUSTOMER: Novartis Consumer Health
LOCATION: Lincoln, NE
VALUE: $1.5M
YEAR COMPLETE: 2008

DESCRIPTION: Novartis Consumer Health is a pharmaceutical manufacturer with a facility located in Lincoln, Nebraska. A new Accela-Cota Model 60 film coater at this facility closely matches the functionality of 6 existing BMS film coaters that were relocated to the Lincoln plant, making a total of 7 film coating systems. Seven new air handlers and exhaust fans provide process air to each film coater. Huffman Engineering, Inc. provided controls using the existing RSBizware Batch/RSBizware Batch Historian system at the facility.

PROJECT: Upgrade Propane Air Plant
END CUSTOMER: Metropolitan Utilities District
LOCATION: Omaha, Nebraska
VALUE: $471, 000
YEAR COMPLETE: 2008

DESCRIPTION: This project followed Metropolitan Utilities District specifications for an upgrade to existing propane air plant controls which were significantly outdated. The project included submittals, engineering time, modifications to existing control panels, furnishing new PLC control panels, PLC configuration, Citect configuration, training and onsite startup. Huffman Engineering, Inc. furnished new venturi flow tubes, instrumentation and pushbutton stations. Full documentation was provided in the form of system architecture, panel layout, wiring, and schematic drawings.

PROJECT TEAM MEMBERS

Huffman Engineering, Inc.
5301 N 57th Street
Lincoln, NE 68507
Phone: (402) 464-6823

Howard H. Huffman, P.E. – President, Electrical Engineer

Howard is President of Huffman Engineering, Inc. and has been involved in engineering services for over 30 years. He has a Master of Science Degree in Electrical Engineering from Rose-Hulman Institute of Technology in Terre Haute, Indiana, granted in May 1994. He also has a Bachelor of Science Degree in Electrical Engineering from the University of Nebraska-Lincoln, granted in May 1978. Howard is a registered Professional Engineer in the states of Nebraska, Indiana and Wisconsin and will be serving as the Contract Administrator for the proposed project.

Justin Korver – Project Manager, Mechanical Engineer

Justin has over 5 years of experience in controls engineering. He received a Bachelor of Science Degree in Mechanical Engineering from the University of Nebraska-Lincoln in 2006. He has served as Project Manager, Designer, and Configurator on multiple projects for Huffman Engineering. Justin will serve as the Project Manager (Service Supervisor) for the proposed project.

Evan Kilgore – Electrical Engineer

Evan has been with Huffman Engineering, Inc. since 2010 and has served on multiple project teams as PAC Configurator, HMI Configurator and Designer. He received a Bachelor of Science Degree in Electrical Engineering from the University of Nebraska-Lincoln in 2010. He and will serve as the PAC configurator for the proposed project.

Jay Steinman – Mechanical Engineer

Jay has been with Huffman Engineering Inc. since August of 2011. He received a Bachelor of Science Degree in Mechanical Engineering from the University of Nebraska-Lincoln in 2011. Jay will serve as the HMI configurator for the proposed project.

Amy Obst – CAD Operator

Amy has over 20 years of experience with AutoCAD, 14 of those years with Huffman Engineering, Inc. She joined Huffman Engineering in 1998 as the primary CAD Operator. Amy graduated from Southeast Community College in Milford, Nebraska with an Associate of Applied Science Degree in Architectural Technology in 1992. She will be doing the drafting for the proposed project.

Bernie Lyons – Shop Manager

Bernie joined Huffman Engineering as Shop Manager in 1996. He had previously worked for Lenco PMC in Waverly, NE for 18 years as an electrical technician, machinist and Production Superintendent. He has an Associates of Applied Science Degree in Machine Tool (mold-making option) from Southeast Community College in Milford, NE and an Associates of Applied Science Degree in Electronics Technology from Southeast Community College in Lincoln, NE. Bernie will be doing the panel fabrication for the proposed project.

Don Baack – Electrical Technician

Don joined Huffman Engineering in 2006. He had previously worked as an independent contractor for Baack Electric Inc. for 10 years as Master Electrician. He has an Associates of Applied Science Degree in Electrical Technology from Southeast Community College in Milford, NE. Don will be doing the on-site installation for the proposed project.

WELL-FIELD CONTROL SYSTEM UPGRADE
BID DATA FORM

CITY OF GRAND ISLAND
GRAND ISLAND, NE

The undersigned bidder, having examined all specifications and other bidding documents, and all addenda thereto, and being acquainted with and fully understanding all conditions relative to the specified materials and equipment, hereby proposes to provide such equipment FOB the City of Grand Island, freight prepaid, at the following price:

ITEM DESCRIPTION	EXTENDED COST
Base Bid:	
Material	$ 78,000.00
Labor	$ 65,000.00
Applicable Sales tax*	$ 4,290.00
Total Base Bid	$ 147,290.00

*** 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 7.0% figure to the bid price for evaluation purposes; however, the City will only pay actual sales tax due.**

☑ By checking this box, Bidder acknowledges that Addenda Number(s) 1 were received and considered in Bid preparation.

☑ By checking this box, Bidder acknowledges the specified completion date of the project is **June 30, 2012**.

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.

Huffman Engineering, Inc. — 4/11/12
Bidder Company Name — Date

5301 N. 57th St. — Lincoln — NE — 68507
Company Address — City — State — Zip

Justin Korver — Justin Korver
Print Name of Person Completing Bid — Signature

Telephone No. 402-464-6823 Fax No. 402-464-6892

☒ By checking this box, Bidder acknowledges there are Exceptions noted to the bid.
NOTE: Any exceptions to specifications must be fully explained on a separate sheet attached to bid.

EXCEPTIONS TO SPECIFICATION – WW073

Huffman Engineering, Inc.
5301 N 57th Street
Lincoln, NE 68507
Phone: (402) 464-6823
Fax: (402) 464-6892

HEI takes the following exceptions to the Specification:

1) If the Owner so chooses, the Performance Bond shall be added to the Base Price. If this option is not chosen, then a Performance Bond will not be supplied.

2) If the Owner so chooses, the Spare Parts and/or the Submittals may be deducted from the Base Price. If one or both of these options is chosen then the deliverables will be adjusted accordingly.

3) Huffman Engineering plans to use the existing control enclosure (which currently houses the Modicon controller, after it is removed) to implement an Allen Bradley Flex I/O system for monitoring the thermocouple inputs that are in the Pump Station. This is not a deviation from the Specification, but should be noted. This is intended to reduce the hardware and labor rates for the project. This is part of the Base Proposal price. HEI assumes the existing enclosure will remain in place and can be used for this function.

R E S O L U T I O N 2012-103

WHEREAS, the City of Grand Island invited sealed bids for Well Field Control System Upgrade according to plans and specifications on file with the Utilities Department; and

WHEREAS, on April 11, 2012, bids were received, opened and reviewed; and

WHEREAS, Huffman Engineering, Inc., of Lincoln, Nebraska, submitted a bid in accordance with the terms of the advertisement of bids and plans and specifications and all other statutory requirements contained therein, such bid being in the amount of $145,935.00; and

WHEREAS, the bid of Huffman Engineering, Inc., is less than the estimate for the Well Field Control System Upgrade.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF GRAND ISLAND, NEBRASKA, that the bid of Huffman Engineering, Inc., in the amount of $145,935.00 for Well Field Control System Upgrade is hereby approved as the lowest responsible bid.

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Adopted by the City Council of the City of Grand Island, Nebraska, April 24, 2012.

_____
Jay Vavricek, Mayor

Attest:

_____
RaNae Edwards, City Clerk