

DATE: 11/25/2015

Page: 5

BID NO.: 50-00114765

**BID FORM**  
Non Public Works

**All Public Work Projects are required to use the Louisiana Uniform Public Work Bid Form**

All prices must be held firm unless an escalation provision is requested in this bid. Jefferson Parish will allow one escalation during the term of the contract, which may not exceed the U.S. Bureau of Labor Statistics National Index for all Urban Consumers, unadjusted 12 month figure. The most recently published figure issued at the time an adjustment is requested will be used. A request must be made in writing by the vendor, and the escalation will only be applied to purchases made after the request is made.

Are you requesting an escalation provision?

YES \_\_\_\_\_ NO X

MAXIMUM ESCALATION PERCENTAGE REQUESTED 0 %

INITIAL BID PRICES WILL REMAIN FIRM THROUGH THE DATE OF 12/20/16

For the purposes of comparison of bids when an escalation provision is requested, Jefferson Parish will apply the maximum escalation percentage quoted by the bidder to the period to which it is applied in the bid. The initial price and the escalation will be used to calculate the total bid price. It will be assumed, for comparison of prices only, that an equal amount of material or labor is purchased each month throughout the entire contract.

**DELIVERY: FOB JEFFERSON PARISH**

INDICATE DELIVERY DATE ON EQUIPMENT AND SUPPLIES

8-10 weeks after release

LOUISIANA CONTRACTOR'S LICENSE NO.: (if applicable)

Not Applicable

**THIS SECTION MUST BE COMPLETED BY BIDDER:**

FIRM NAME: Gulf States Engineering Co., Inc.

ADDRESS: 17961 Painters Row

CITY, STATE: Covington, La. ZIP: 70435

TELEPHONE: (985) 893-3731 x 206 FAX: (985) 893-5484

EMAIL ADDRESS: diana@gsengr.com

In the event that addenda are issued with this bid, bidders MUST acknowledge all addenda on the bid form. Bidder must acknowledge receipt of an addendum on the bid form as indicated. Failure to acknowledge any addendum on the bid form will result in bid rejection.

Acknowledge Receipt of Addenda: NUMBER: 1. Received

NUMBER: 2. Received

NUMBER: 3. Received

NUMBER: 4. Received

TOTAL PRICE OF ALL BID ITEMS: \$ \$48,448.00

AUTHORIZED SIGNATURE: J. Leon Dressel

J. Leon Dressel

Printed Name

TITLE: CHIEF FINANCIAL OFFICER

SIGNING INDICATES YOU HAVE READ AND COMPLY WITH THE INSTRUCTIONS AND CONDITIONS.

NOTE: All bids should be returned with the BID NUMBER and BID OPENING DATE indicated on the outside of the envelope submitted to the Purchasing Department.

INVITATION TO BID FROM JEFFERSON PARISH - continued

BID NO.: 50-00114765

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
			<p>VENDOR TO FURNISH MATERIAL &amp; EQUIPMENT &amp; TO PROVIDE FACTORY START-UP FOR A REMOTE TELEMETRY UNIT SCADA PANEL &amp; MONITORING SYSTEM FOR JEFFERSON PARISH DEPARTMENT OF SEWERAGE, LIFT STATIONS WITH VFDS.</p> <p>AT THE FOLLOWING LIFT STATIONS:</p> <p>East Bank                      G7-11 Severn &amp; 20th (Lakeside Mall)                      E3-6 Humane Way                      F7-3 Neyrey &amp; Melville Dewey                      H7-6 Focis &amp; Veterans                      H4-1 Deckbar &amp; Railroad                      D8-7 Irving &amp; St. Mary</p> <p>West Bank                      I-8-2 Weigand &amp; Landers                      L-13-2 Randolph &amp; Giaise</p>		
1	8.00	EA	0010 - SCADA RTU Panel Item model: SCADA RTU	\$3,654	\$29,232.00
2	1.00	EA	0020 - 3 years Monitoring of SCADA Item Model: Monitoring	\$1,902	\$15,216.00
3	8.00	EA	0030 - Factory Startup Item Model: Startup	\$ 500	\$ 4,000.00

**INSURANCE REQUIREMENTS - BIDS**

All insurance requirements shall conform to Jefferson Parish Resolution No. 113646 or No. 113647. The contractor shall not commence work under this contract until he has obtained all insurance and complied with the requirements of the specifications and said Parish Resolutions. Except as otherwise provided by law, the Parish Attorney's Office with the concurrence of the Director of Risk Management is authorized to omit in whole or part the insurance requirements of this section in connection with contracts. Vendors inquiring about this shall submit his written request to the Purchasing Department prior to the due date of the bid. Contractor must deliver and maintain such insurances as provided; failure to do so shall be grounds for suspension, discontinuation or termination of the contract.

*Successful bidder will be required to procure standard insurance policies evidencing Parish mandated insurance requirements indicated below. The current certificate of insurance must be submitted by low bidder within 10 days after bid opening to the Purchasing Department. Failure to comply will cause bid to be rejected.*

**1. WORKER'S COMPENSATION INSURANCE**

As required by Louisiana State Statute, exception; Employer's Liability, Section B shall be \$1,000,000 per occurrence when Work is to be over water and involves maritime exposures to cover all employees not covered under the State Worker's Compensation Act, otherwise this limit shall be no less than \$500,000 per occurrence.

**2. COMMERCIAL GENERAL LIABILITY**

Shall provide limits not less than the following: \$1,000,000.00 Combined Single Limit per Occurrence for bodily injury and property damage.

**3. COMPREHENSIVE AUTOMOBILE LIABILITY**

Bodily injury liability \$1,000,000.00 each person; \$1,000,000.00 each occurrence.  
Property Damage Liability \$1,000,000.00 each occurrence.

**DEDUCTIBLES**

No insurance required shall include a deductible not greater than \$10,000.00. The cost of the deductible shall be borne by the contractor.

NOTE: If the vendor requires a change in deductibles, the request must be submitted in writing to the Purchasing Department prior to the due date of the bid. Such request shall be reviewed by the Parish Attorney's Office.

**UMBRELLA LIABILITY COVERAGE**

An umbrella policy or excess may be used to meet minimum requirements.

**CONSTRUCTION AND RENOVATION PROJECTS:**

Unless otherwise specified in the bid, these additional insurance is required. Such insurance is due upon contract execution.

**OWNER'S PROTECTIVE LIABILITY**

To be for the same limits of liability for bodily injury and property damage liability established for commercial general liability.

**BUILDER'S RISK INSURANCE**

The contractor shall maintain Builder's Risk Insurance at his own expense to insure both the owner (Parish of Jefferson) and contractor as their interest may appear.

**NOTE for CERTIFICATE HOLDER:**

All insurance certificates shall list the certificate holder as follows:

"The Parish of Jefferson, its Districts, Departments and Agencies under the direction of the Parish President and the Parish Council." Additionally, the address on the Certificates should reflect the department which is letting the bid and reference the respective bid number.

Revised 2.10.2014





## ADDITIONAL REMARKS SCHEDULE

AGENCY Hub International Gulf South		License # 231432	NAMED INSURED Gulf States Engineering Co Inc 17961 Painters Row Covington, LA 70435
POLICY NUMBER SEE PAGE 1			
CARRIER SEE PAGE 1	NAIC CODE SEE P 1	EFFECTIVE DATE: SEE PAGE 1	

## ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,  
FORM NUMBER: ACORD 25 FORM TITLE: Certificate of Liability Insurance

## Remarks:

## Additional Terms/Conditions

**COMMERCIAL GENERAL LIABILITY:**

Additional Insured status is extended to any person or organization when agreed upon by the Named Insured in a written contract or agreement executed prior to the loss. Waiver of Subrogation is extended to any person or organization when agreed upon by the Named Insured in a written contract or agreement executed prior to the loss.

**AUTO LIABILITY:**

Additional Insured status is extended to any person or organization when agreed upon by the Named Insured in a written contract or agreement executed prior to the loss. Waiver of Subrogation is extended to any person or organization when agreed upon by the Named Insured in a written contract or agreement executed prior to the loss.

**WORKERS' COMPENSATION/EMPLOYERS LIABILITY:**

Policy contains Voluntary Compensation Employers Liability, Longshore and Harbor Workers Compensation Act, Gulf of Mexico Extension, Outer Continental Shelf Lands Act, Maritime Coverage (\$100,000), Voluntary Compensation Maritime. Waiver of Subrogation is extended to any person or organization when agreed upon by the Named Insured in a written contract or agreement executed prior to the loss.

**UMBRELLA LIABILITY:**

Policy follows form over the Commercial General Liability, Auto Liability and Employers Liability.

Subject policies shall be primary insurance and exclusive of any other existing valid and collectable insurance coverage available to any member of Company Group.

All terms, conditions, and coverages apply as per the actual policies.

**CORPORATE RESOLUTION**

EXCERPT FROM MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF  
GULF STATES ENGINEERING CO., INC  
INCORPORATED.

AT THE MEETING OF DIRECTORS OF GULF STATES ENGINEERING CO., INC  
INCORPORATED, DULY NOTICED AND HELD ON JANUARY 14, 2016,  
A QUORUM BEING THERE PRESENT, ON MOTION DULY MADE AND SECONDED. IT  
WAS:

RESOLVED THAT J. LEON DRESSEL, BE AND IS HEREBY  
APPOINTED, CONSTITUTED AND DESIGNATED AS AGENT AND ATTORNEY-IN-  
FACT OF THE CORPORATION WITH FULL POWER AND AUTHORITY TO ACT ON  
BEHALF OF THIS CORPORATION IN ALL NEGOTIATIONS, BIDDING, CONCERNS  
AND TRANSACTIONS WITH THE PARISH OF JEFFERSON OR ANY OF ITS AGENCIES,  
DEPARTMENTS, EMPLOYEES OR AGENTS, INCLUDING BUT NOT LIMITED TO, THE  
EXECUTION OF ALL BIDS, PAPERS, DOCUMENTS, AFFIDAVITS, BONDS, SURETIES,  
CONTRACTS AND ACTS AND TO RECEIVE ALL PURCHASE ORDERS AND NOTICES  
ISSUED PURSUANT TO THE PROVISIONS OF ANY SUCH BID OR CONTRACT, THIS  
CORPORATION HEREBY RATIFYING, APPROVING, CONFIRMING, AND ACCEPTING  
EACH AND EVERY SUCH ACT PERFORMED BY SAID AGENT AND ATTORNEY-IN-  
FACT.

I HEREBY CERTIFY THE FOREGOING TO BE  
A TRUE AND CORRECT COPY OF AN  
EXCERPT OF THE MINUTES OF THE ABOVE  
DATED MEETING OF THE BOARD OF  
DIRECTORS OF SAID CORPORATION, AND  
THE SAME HAS NOT BEEN REVOKED OR  
RESCINDED.

Jeannne James  
SECRETARY-TREASURER

JANUARY 14, 2016  
DATE

## **Non-Public Works Bid Affidavit Instructions**

- **Affidavit is supplied as a courtesy to Affiants, but it is the responsibility of the affiant to insure the affidavit they submit to Jefferson Parish complies, in both form and content, with federal, state and parish laws.**
- **Affidavit must be signed by an authorized representative of the entity or the affidavit will not be accepted.**
- **Affidavit must be notarized or the affidavit will not be accepted.**
- **Notary must sign name, print name, and include bar/notary number, or the affidavit will not be accepted.**
- **Affiant MUST select either A or B when required or the affidavit will not be accepted.**
- **Affiants who select choice A must include an attachment or the affidavit will not be accepted.**
- **If both choice A and B are selected, the affidavit will not be accepted.**
- **Affidavit marked N/A will not be accepted.**
- **It is the responsibility of the Affiant to submit a new affidavit if any additional campaign contributions are made after the affidavit is executed but prior to the time the council acts on the matter.**

*Instruction sheet may be omitted when submitting the affidavit*

Non-Public Works Bid

AFFIDAVIT

STATE OF LOUISIANA

PARISH/COUNTY OF ST. TAMMANY

BEFORE ME, the undersigned authority, personally came and appeared: \_\_\_\_\_

J. LEON DRESSEL, (Affiant) who after being by me duly sworn, deposed and said that he/she is the fully authorized C.F.O. of GULF STATES ENGR. CO., INC (Entity), the party who submitted a bid in response to Bid Number 50-00114765 to the Parish of Jefferson.

Affiant further said:

Campaign Contribution Disclosures

**(Choose A or B, if option A is indicated please include the required attachment):**

Choice A \_\_\_\_\_ Attached hereto is a list of all campaign contributions, including the date and amount of each contribution, made to current or former elected officials of the Parish of Jefferson by Entity, Affiant, and/or officers, directors and owners, including employees, owning 25% or more of the Entity during the two-year period immediately preceding the date of this affidavit or the current term of the elected official, whichever is greater. Further, Entity, Affiant, and/or Entity Owners have not made any contributions to or in support of current or former members of the Jefferson Parish Council or the Jefferson Parish President through or in the name of another person or legal entity, either directly or indirectly.

Choice B X there are **NO** campaign contributions made which would require disclosure under Choice A of this section.

Debt Disclosures

**(Choose A or B, if option A is indicated please include the required attachment):**

Choice A \_\_\_\_\_ Attached hereto is a list of all debts owed by the affiant to any elected or appointed official of the Parish of Jefferson, and any and all debts owed by any elected or appointed official of the Parish to the Affiant.

Choice B X There are **NO** debts which would require disclosure under Choice A of this section.

Affiant further said:

That Affiant has employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for Affiant; and

*[The remainder of this page is intentionally left blank.]*

That no part of the contract price received by Affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for Affiant.

J. Leon Dressel  
Signature of Affiant

J. LEON DRESSEL  
Printed Name of Affiant - Junius L. Dresse!

SWORN AND SUBSCRIBED TO BEFORE ME  
ON THE 02 DAY OF Dec., 2015.

Salvatore A. Mortillaro II  
Notary Public

Printed Name of Notary **Salvatore A. Mortillaro II**  
**Notary Public for Life**  
**Parish of St. Tammany, LA**  
Notary ID #88181  
Notary/Bar Roll Number

My commission expires \_\_\_\_\_.

26995

**Request for Taxpayer  
Identification Number and Certification**

Give form to the requester. Do not send to the IRS.

Name (as shown on your income tax return)  
*Stuf States Engineering Co Inc*

Business name, if different from above

Check appropriate box:  Individual/sole proprietor  Corporation  Partnership  
 Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) ▶ .....  Exempt payee  
 Other (see instructions) ▶

Address (number, street, and apt. or suite no.)  
*17961 Painters Row*

City, state, and ZIP code  
*Covington, LA 70435*

List account number(s) here (optional)  
*Remit to Address: P.O. Box 52511 Metairie, LA 70155-2511*

Requester's name and address (optional)

**Part I Taxpayer Identification Number (TIN)**

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note: If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number

.....

or

Employer identification number

*72-0641015*

**Part II Certification**

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
- I am a U.S. citizen or other U.S. person (defined below).

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here Signature of U.S. person *Maureen Perkins / Stuf States Eng Co Inc 9/20/10*

**General Instructions**

Section references are to the Internal Revenue Code unless otherwise noted.

**Purpose of Form**

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note: If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

**Definition of a U.S. person.** For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

**Special rules for partnerships.** Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,



# CENTRALBIDDING

FROM CENTRAL AUCTION HOUSE

Central Bidding Time: Thu January 14, 2016 2:01:02 PM GMT-6  
Welcome to Central Bidding, **MOVALLE** - You are Logged-in - Log Out

**Place a Bid for 5000114765 - VENDOR TO FURNISH MATERIAL AND EQUIPMENT AND TO PROVIDE FACTORY START-UP FOR A REMOTE TELEMTRY UNIT SCADA PANEL AND MONITORING SYSTEM FOR JEFFERSON PARISH DEPARTMENT OF SEWERAGE, LIFT STATIONS WITH VFDs**

Please enter your best bid proposal for this project

Louisiana Contractor ID#

Enter all information required on the outside of the sealed envelope in the box below

Bid #50-00114765 Bids 12/10/15 @ 2PM Telemetry + Scada Jefferson Parish Purchasing Dept. P O Box 9  
Gretna, La 70054 Bidder: Gulf States Engineering Co., Inc. 17961 Painters Row Covington, La. 70435 tel 985-  
893-3631 x206

Bid Bond #

Jefferson Parish Vendor #:

Upload Attachment(s)

Click the Upload button in order to upload bid related documents







**CENTRALBIDDING**  
FROM CENTRAL AUCTION HOUSE

**5000114765 - VENDOR TO FURNISH MATERIAL AND EQUIPMENT AND  
TO PROVIDE FACTORY START-UP FOR A REMOTE TELEMETRY UNIT  
SCADA PANEL AND MONITORING SYSTEM FOR JEFFERSON PARISH  
DEPARTMENT OF SEWERAGE, LIFT STATIONS WITH VFDs**  
Jefferson Parish Government

Project documents obtained from [www.CentralBidding.com](http://www.CentralBidding.com)  
25-Nov-2015 10:19:48 AM



**Bid Number 50 - 00114765**

VENDOR TO FURNISH MATERIAL AND EQUIPMENT AND TO PROVIDE  
FACTORY START-UP FOR A REMOTE TELEMETRY UNIT SCADA PANEL  
AND MONITORING SYSTEM FOR JEFFERSON PARISH DEPARTMENT OF  
SEWERAGE, LIFT STATION WITH VFDs.

**December 10, 2015, 2:00 pm**

**ATTENTION VENDORS!!!**

**Please review all pages and respond accordingly, complying with all provisions  
in the technical specifications and Jefferson Parish Instructions for Bidders and  
General Terms and Conditions. All bids must be received in the Purchasing  
Department by the bid due date and time.**

**Jefferson Parish Purchasing Department  
200 Derbigny Street  
General Government Building, Suite 4400  
Gretna, LA 70053  
Melissa Ovalle  
movalle@jeffparish.net  
(504) 364-2687**

**JEFFERSON PARISH DEPARTMENT OF SEWERAGE**

**SPECIFICATIONS FOR BID NUMBER: 50-00114765**

**REMOTE TELEMETRY UNIT SCADA PANEL AND MONITORING SYSTEM**

**PART 1 - GENERAL**

**1.01 Scope**

- A. The System Supplier shall provide a fully functional Remote Telemetry Unit (RTU) SCADA Panel as specified herein and shall provide connection to the Owner's Existing equipment, along with a Human Machine Interface (HMI) specified herein that meets or exceeds the specifications, and shall provide Owner managed monitoring of the deployed system for the timeframe noted herein. Equally, the System Supplier shall provide commissioning and configuration services as noted for each RTU supplied, and three years of monitoring of each commissioned site.
  
- B. Acceptable manufacturers are those manufacturer's that meet the specifications and can provide the specified interface to the pump stations listed herein and insure complete functionality as noted. All equipment approved for this project shall meet or exceed all performance, service, and warranty requirements of this specification.

**1.02 QUALITY ASSURANCE**

A. Manufacturer's Qualifications

- 1. The supplier shall provide an installation list upon request.
- 2. All equipment approved for this project shall meet or exceed all performance, service, and warranty requirements of this specification.
- 3. The RTU shall be capable of direct interface via RS-485 serial connection to the pump controller. The communications protocol from the existing equipment to the RTU shall be MODBUS and communications from the RTU to the SCADA system shall be via DNP-3 protocol over cellular network.

### 1.03 TESTING

#### A. General

Each RTU shall be shop tested and field tested as specified hereinafter. All costs for the tests shall be borne by the System Supplier. The System Supplier shall submit the complete shop test procedures to the Owner for approval prior to the shop test. In the event any equipment fails to meet the performance requirements set forth in the test procedure, the equipment shall be modified and re-tested or replaced with equipment that performs in accordance with this specification.

#### B. Shop Tests

As noted, the RTU equipment shall be connected to like or similar test equipment and data tags shall be verified from existing equipment to the proposed RTU.

#### C. Field Tests

The RTU Equipment shall be field tested to demonstrate stable communications and that the specified values are properly displayed on the HMI system. The System Supplier shall provide the services of authorized equipment supplier's representatives to conduct all field tests.

A report shall be submitted to the Owner demonstrating a successful 48 hour burn in Field Test that provides the necessary and specified data as noted herein.

**1.04 SUBMITTALS**

- A. Furnish complete layout and bill of material drawings for the Owner's review and comment.
- B. Furnish shop drawings and other pertinent data to the Engineer and obtain his approval before fabrication. The drawings shall be complete with respect to dimensions, materials of construction, wiring diagrams, and all supporting engineering information.
- C. At least one month before installation of this work, submit four (4) copies of operation and maintenance instructions to the Engineer.

**1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver, store, and handle items of equipment in a manner that will prevent any damage.
- B. Follow manufacturer's instructions for short term and long term storage.

## **1.06 CO-ORDINATION**

- A. Co-ordinate this work with Jefferson Parish Department of Sewerage personnel to avoid interferences and to provide for timely installation.

## **PART 2 - PRODUCTS**

### **2.01 RTU SCADA CONTROL PANEL**

- A. It is the intention of this specification that a complete RTU SCADA Control Panel, along with a fully functional SCADA system, be provided as a completely integrated system from a single system supplier. This includes all necessary appurtenances noted herein that will interface with existing control panels and internal equipment that operate existing pumps in the station. The panel shall be factory assembled, wired and tested, and documented with complete electrical drawings, and Operations & Maintenance Manuals for all equipment.
- B. The system described hereafter shall be supplied by single source to insure responsibility for a complete functioning system.
- C. Signal conditioning, set point, control, alternation, logic function, transducer, alarm, and all other control functions shall be performed by solid-state modules, which shall be standard catalog items of the system manufacturer.

### **2.02 QUALITY ASSURANCE**

- A. The Supplier shall maintain quality in design and workmanship, as well as materials used in the manufacturing of equipment supplied. All equipment supplied under this specification shall be of new manufacture.
- B. The Supplier shall be a firm that is engaged in the manufacturing of pump station control and SCADA systems. The system shall be in regular production with pre-designed hardware and software for process control systems. When the

specification conflicts with a manufacturer's standard system, the standard system may be furnished if the intention of the specification is met.

- C. System shall be a standard system. Custom, one-of-a-kind application software, and customized hardware components will not be accepted. A standard system is defined as one which is available, at time of bid, with fully tested hardware and software, full documentation, and prepared training classes such that no development must be done beyond system configuration.
- D. Supplier shall be responsible for detailed engineering, manufacture, programming, test, start-up, and demonstration of all equipment and software programs to the Owner to provide a complete operating system.
- E. The manufacturer shall have been involved in the design and manufacture of control systems. The manufacturer shall have successfully built and placed into operation, systems similar to the one proposed herein. Upon request, the manufacturer shall furnish the Owner with a list of operating installations.
- F. Provide all engineering and render coordination assistance necessary for calibration of overall system, and resolve interface discrepancies between panels, equipment, instrumentation, and final control devices. Where interface conflicts exist, the Supplier shall document conflicts in writing to the Owner providing absolute information, such as terminal numbers, device name, tests performed, and diagnosis of problem.
- G. All equipment supplied shall be of the most current and proven design at the time of delivery. The completed System and the equipment provided by the Supplier shall be compatible with the functions required and shall be a complete working System.
- H. All electrical components of the System shall operate on 120 volt, single-phase, 60 Hertz current or less, except as otherwise noted in the specifications and on the drawings.

### **2.03 DOCUMENTATION**

- A. The complete assembly shall be provided with specific wiring diagrams, parts lists, enclosure dimension and door layout drawings, and instructions.

- B. Each RTU SCADA panel shall be provided with a job-specific wiring diagram, parts list, enclosure door layout, and enclosure dimension drawing. Manufacturer's wiring diagrams that are not job-specific (standard drawings with options crossed out, etc.) are not acceptable. The wiring diagram requirement applies to all field mounted instrumentation and control equipment. Interconnection details shall be shown for all field-mounted instrumentation. A Description of Operation shall be provided detailing the operation of the complete system, including the control and alarm handling.
  
- C. As-built Drawings and Instruction Manuals must be provided. These manuals shall include corrected Shop Drawings. In addition, a detailed Programming and Operations Manual for the Microprocessor-based Controller Unit shall be included. The manual shall include all information as detailed for the Shop Drawing Submittals above.

## **2.04 GENERAL EQUIPMENT REQUIREMENTS**

### **A. UNDERWRITER'S LABORATORIES SERIALIZED LABEL**

1. The RTU SCADA panel(s) shall be constructed in compliance with Underwriter's Laboratories Categories 508A standards.
2. Prior to shipment from the manufacturer's facility to the jobsite for installation, an Underwriter's Laboratories (U.L.) representative shall inspect the completed control panel(s).

### **B. WIRING**

1. All wiring shall be in complete conformity with the national electric codes, and electrical standards. For ease of servicing and maintenance, all wiring shall be color-coded. The wire color code shall be clearly shown on the drawings, with each wire's color indicated. In addition, the equipment wiring shall be permanently marked with wire numbers that correspond to the system schematics. The numbering convention shall comply with the municipal industry standard.
2. All control wiring shall be contained within plastic/PVC wiring duct with covers. Where dimensional constraints prevent the use of wiring duct, wires shall be trained to panel components in groupings. The wire groupings shall be bundled and tied not less than every 3 inches with nylon self-locking cable ties, as manufactured by Panduit, or equal.
3. Every other cable tie shall be fastened to the enclosure door or inner device panel with a cable tie mounting plate with pressure tape. Where wiring crosses hinged areas such as when trained from the inner device panel to the enclosure door, spiral wrap shall be used.

### **C. NAMEPLATES**

1. All major components and sub-assemblies shall be identified as to function with laminated, engraved Bakelite nameplates, or similar approved means.

## **2.05 RTU SCADA CONTROL PANEL**

### **A. SCOPE**

BID NO.: 50-00114765

1. The System Supplier shall furnish a complete new RTU SCADA CONTROL panel housed in a NEMA 4X, fiber reinforced plastic (FRP) wall mounted enclosure, adequately sized in accordance with the National Electric Code (NEC) for the components contained therein. The enclosure door shall be provided with a padlock-able hasp. The RTU SCADA PANELS shall be provided for the following locations in the East Bank and West Bank Sewerage Collection System:

**East Bank**

- a. G7-11 Severn & 20th (Lakeside Mall)
- b. E3-6 Humane Way
- c. F7-3 Neyrey & Melville Dewey
- d. H7-6 Focis & Veterans
- e. H4-1 Deckbar & Railroad
- f. D8-7 Irving & St. Mary

**West Bank**

- g. I-8-2 Weigand & Landers
  - h. L-13-2 Randolph & Gaise
2. The system shall be furnished with all components installed, tested, and completely programmed to function as noted herein.
  3. Connection to the existing field equipment, where necessary, shall be accomplished via RS-485 serial bus connection.

All other electrical pull boxes, switches, disconnects, junction boxes, conduit and wiring, not specifically mentioned herein, shall be provided by the Contractor.

**B. INCOMING POWER**

1. Incoming control power to the panel shall be 120/1 phase from the existing pump station control panel. An internal power supply shall provide 24vDC power where applicable.

**C. SOLID STATE RTU**

1. The Solid State RTU shall be based on a robust, field proven, current technology hardware platform, allowing utilization of the latest advances in technology, and permitting the most open programming and communication architectures. The system shall be modular, scalable, and capable of being programmed to function as described herein.
2. Functional Description of the RTU - The unit shall function to communicate with the existing pump station control system for the pump stations listed herein.
  - a. The RTU shall read internal MODBUS registers of the existing equipment

and shall provide the data to be communicated to a cloud based control and monitoring system.

- b. The control system shall be provided with an uninterrupted power supply (UPS) and battery backup system to allow communication to the owner's SCADA system to communicate station status during periods of power outage.

D. RTU Capabilities and Features:

1. The RTU system shall include a real time of day time clock with battery back-up for time stamping of data log records and scheduling of periodic time of day based events. The clock shall not require reset after a site power failure has occurred.
2. The RTU shall store system parameters including, logic configuration, set points, time delays, alarm and event data, counters and totalizers, etc., in field programmable (FLASH) non-volatile memory. Sufficient non-volatile memory must be provided to protect at least 8,000 variables. The RTU shall also provide enough protected memory for time stamped data logging of up to 50,000 process values. This data shall be unaffected by power interruptions.
3. The RTU shall have enough processing power and working (DRAM) memory to enable high-level programs such as Internet Web Servers to operate efficiently without affecting other simultaneous multitasking operations.
4. The RTU shall be furnished with a minimum of 6 communication ports with true multitasking and allow simultaneous support of all ports. Ports can be configured for local input/output (I/O), Operator Interface/display support, LAN/WAN, etc.
5. The RTU processor shall meet the following, as a minimum:
  1. CPU – Clock speed of 500 MHz capable of 900M IPS and 3.5G FLOPS.
  2. 16 MB – 32 bit Dynamic RAM
  3. 64 MB FLASH
  4. 256 MB Static RAM
  5. 2 (Two) Ethernet ports (RJ45)
  6. 2 (Two) RS-232 Serial Communications (115 KB PS) (DB9)
  7. 2 (Two) RS485 Serial Multi-Drop Communications
  8. 1 (One) Local input/output port CANBUS
  9. 1 (One) Display Port
6. The RTU shall not require any specialized tools for removal of the unit. System components, including RTU, power supplies, etc. shall be Deutsches Institut fur Normung (DIN) rail mounted. Terminations shall be via plug in connectors, facilitating quick field replacement.
7. RTU and associated I/O modules shall meet national and international safety standards including UL, CSA, and CE.

8. The RTU shall operate from a 12-24 VDC power source. A battery and charger, as previously specified, shall be supplied to power the master and remote unit during 120 Volt service power outage conditions.
9. The RTU shall have an operational temperature range of -10°C to +60°C (14°F to 140°F) under relative humidity conditions of 5 to 95% non-condensing. Storage temperature range up to 90°C (194°F)
10. Software:
  - a. The software shall have a high performance open source software architecture. It must utilize a true multitasking operating system, and run a combination of standard and specially designed (for water and wastewater) application software modules. The system provided shall utilize an integrated system approach. It must provide a comprehensive common configuration tool for all components within the system, including input/output, Processor, Communications, and Operator Interface Display. The architecture shall permit all system components to be configured, simulated, tested, and downloaded from one terminal to all system components.
  - b. The operating system shall be multitasking and allow a minimum of two separate programs to run simultaneously, without affecting each other.
  - c. RTU's provided under this specification shall be capable of performing the necessary logic to control the system as previously defined. These capabilities shall include, but not be limited to the following:
    1. Discrete input/output
    2. Analog input
    3. Analog output
    4. Timers
    5. Data Logging
    6. Latch/unlatch relays
    7. Counters
    8. Totalization/Integration
    9. Time of Day Control
  - d. RTU's shall be capable of performing diagnostic functions. Central Processing Units shall continuously monitor the functionality of the system and record errors and specific system events. A diagnostic buffer shall retain fault and interrupt events.
  - e. Each RTU shall have memory protected built-in historical archiving/data,

logging of system alarms and events, and process variables. Data logger shall be able to log data based on time, or an event. RTU shall have enough memory allocated to allow 50,000 time and date stamped discrete and/or analog values to be archived. The historical archive shall allow the oldest data to roll off the system as memory is used, keeping the 50,000 most current data points available. Process point time stamping frequency shall be selectable within the configuration software. It shall be possible for the archived data to be exported in Comma Separated Value (CSV) format, allowing use with standard spreadsheet and data base software applications.

- f. Each RTU shall have built in web server capability, allowing system information to be stored in a format that allows for easy access and viewing with standard Windows™ based browser. This information shall be accessible locally or remotely.

11. RTU Communications Capabilities:

- a. The RTU system shall utilize an "open" industry, non-licensed standard communications protocol. It must permit interface with other equipment that may not be supplied by the same manufacturer. Protocols that are proprietary and closed ended will not be acceptable. Upon request by the end user, the system supplier shall provide, to the owner, documentation describing the supplied communications protocol so that it may be used in future telemetry additions to insure interface-ability of other third party RTUs and/or RTUs.
- b. The system must be able to simultaneously support multiple communications protocols. The system supplied, as a minimum, shall be able to supply "open" and Modbus RTU/ASCII (Remote/Slave) output data via RS-232, 485 & Ethernet format, thus insuring a primary means of interfacing with non-related equipment.
- c. The RTU system shall allow operations over multiple (LAN/WAN) communication media, affording the most efficient and reliable solution, including: DC metallic wire pair, dedicated leased voice grade phone line, standard dial up phone line, wireless cellular dial up system, cable TV, Fiber optics, Ethernet 10/100 BaseT, VHF Radio, UHF Radio, Dedicated Microwave Radio, and Ethernet Wireless. System communication architecture can be based on any one or a combination of these media. The communications speed shall be set to the highest speed allowed by the selected media.
- d. The system shall support multiple modes of operation, allowing highest possible system reliability and real-time response, including: standard polling cycles, peer-to-peer, quiescent (Report on exception). System communication architecture can be based on any one or a combination of these modes of operation.
- e. The RTU system shall employ a high level, efficient, secure communications protocol for communications between Master Telemetry Unit (MTU) and Remote Telemetry Unit(s) (RTU). Systems utilizing communications protocols with less capable error detection/rejection capabilities shall not be suitable for this application and will be summarily rejected.
- f. The RTU system shall allow local or remote configuration of RTU troubleshooting without the need to be onsite. The system protocol shall support remote upload and down load file transfers between the master unit and associated RTU's, where applicable. File transfer function shall provide reliable means of remotely transferring RTU configuration files so that any RTU configuration can be uploaded through the selected telemetry communications media to the online PC, via the MTU, modified and then downloaded to the RTU.

12. Input/Output Systems:

- a. The RTU system shall have input/output (I/O) resources to support a wide

variety of applications, without needing to depend upon alternate technologies to meet various system data requirements. Each RTU shall be supplied with the required I/O to meet the specified requirements and allow for a minimum of 100% spare capacity for future expansion.

- b. The RTU system shall support a wide variety of modular I/O with various configurations to permit the most efficient use of I/O hardware and panel space. I/O modules shall be available for local I/O (within control panel), remote I/O (RS-485 based distributed outside of the control panel), and Ethernet based I/O (Distributed I/O on high speed in plant network or wireless Ethernet). Each I/O module shall be DIN rail mounted, have compression wire type terminals capable of accepting 14 AWG wire, have wire identification markers, and I/O wiring diagram. Each module shall include diagnostic LEDs indicating module operational and I/O status. Each I/O module shall be electrically isolated; meet IEEE-472 (ANSI C37.90) surge withstand certification; shall be removable under power; and easily field replaced with a spare module, requiring no software/hardware reconfiguration adjustments. Each module shall be safety keyed to insure proper installation. I/O modules shall permit installation and operation in hazardous locations as classified under UL, CSA Class 1, Div. 2, Groups A, B, C & D.
- c. Remote I/O modules shall be connected to the RTU by high speed serial communications. Remote I/O modules shall support multiple communications protocols, including Modbus ASCII and RTU, allowing connection to any device supporting these protocols.
- d. Ethernet I/O modules shall be connected to the RTU by on board Ethernet 10/100 BaseT connection port. Ethernet I/O modules shall support multiple communications, including TCP/IP and Modbus ASCII and RTU, allowing connection to any device supporting these protocols over standard Ethernet backplane.

#### E. SUPERVISORY CONTROLS, SERVICE, TRAINING AND GUARANTEE

1. The services of a factory trained, qualified representative shall be provided to inspect the completed installation, make all adjustments necessary to place the system in trouble-free operation, and instruct the operating personnel in the proper care and operation of the equipment.
2. After each system has been installed, the Supplier shall demonstrate with performance of each unit, and document that the system operates as specified.
3. The Supplier shall provide systems training for operations staff totaling no less than 2 hours.
4. All training shall be conducted at the site. Travel expenses are the responsibility of the supplier.
5. All equipment shall be guaranteed against defects in material and workmanship for a period of 5 years from the date of Owner's final inspection and acceptance, to the effect that any defective equipment shall be repaired or replaced without cost or obligation to the Owner.

## **PART 3 – SCADA SOFTWARE**

### **GENERAL**

The SCADA HMI will be based on a well-supported global SCADA platform. It must be accessible via mobile devices such as tablets and smart phones, as well as any PC running Internet Explorer Version 5, or higher. The software shall provide the following:

- A. System Configuration/Daily Operations
  - 1. Software configuration and operational actions shall be protected from unauthorized access by a password/pass-code security system. The security model must be centralized, such that each user may use the same password to access the following SCADA features:
    - a. Development environment
    - b. Runtime displays
    - c. Alarm management
    - d. Alarm dialer (incoming and outgoing calls)
  - 2. Software help manuals shall be provided to assist operators and administrative personnel with daily operations and software configuration. The latest versions of all manuals shall be made available for download from the software manufacturer's website.
- B. Graphics and Displays
  - 1. Software shall support both animated and static graphic objects. Animated graphic objects shall provide real-time process information to the user via displays. Alarms and process data depicted on displays shall be updated immediately upon receiving new data.
  - 2. Standard tag types with graphics shall be provided for the following;
    - a. Analog/discrete inputs
    - b. Analog/discrete outputs. Outputs sent to field devices must include feedback.
    - c. Multi-position switches. Position changes sent to field devices must include feedback of status received and verification of field action taken. For example, a switch intended to turn on a pump shall generate an alarm if the pump running status is not received within a predefined timeout.

- d. Alarms
  - 3. Software shall include pre-built displays for standard HMI features. The following pre-built displays shall be provided as a minimum:
    - a. Alarm display that can be filtered by name and includes current, unacknowledged, disabled, and history
    - b. Trending/Tabular viewing of historical data
    - c. Report creator
  - 4. Software shall include a menu for navigating from one display to another. Menu shall be configurable to allow logical grouping of displays where necessary.
  - 5. Operators, with sufficient security privileges, shall have access to system set points and control points, and shall have the ability to modify these points.
  - 6. It shall be possible to determine the properties of any input/output value displayed by selecting it with the mouse. This shall be done in real-time and shall display the following data:
    - a. Name, description, and logical system area
    - b. Scaling of field data
    - c. Input/output address
    - d. Alarm properties
  - 7. Software shall support background bitmaps on graphical pages.
  - 8. Software shall be capable of displaying multiple graphical windows simultaneously.
- C. Historical and Real-Time Data Management
- 1. Software shall provide historical data storage. A synchronization scheme shall be included, ensuring an exact copy of all historical data resides on three server workstations. In the event that the primary or backup historical data storage servers are not synchronized, the outdated server will backfill all missing data from the server with the most recent historical data.
  - 2. The system will maintain all tag properties in a relational database.

3. Software shall display historical and real-time data in both plot and tabular format. Historical and real-time plotted values shall be shown in a continuous, uninterrupted, scrolling fashion. These shall be displayed in strip-chart style with the vertical axis depicting the variable value and the horizontal axis representing time. Each display shall be scaled in appropriate coordinates for the specific tag being monitored. The plot's time frame shall be operator selectable from a minimum of one second to five years. Time intervals shall be clearly marked on the x-axis with date/time stamps and shall scroll with the data.
  4. User shall be able to see the value of plotted tags for any selected point in time.
  5. Software shall be capable of displaying an unlimited number of analog and digital tag plots on a single display. Color shall be used to differentiate between tags. Means must be provided to quickly determine the name and description of each tag displayed.
  6. Scaling of each displayed tag plot shall, at the user's choice, be either independently configurable, or shall follow the scaling of the tag. Changing the scaling of the tag plot shall not affect the scaling of the tag.
  7. Where data is not available over duration for a particular variable, data plots shall show no data. At no time shall the gap be replaced with a connection between the last good value and the next good value.
  8. Means must be provided to accomplish the following:
    - a. Stop the plots from scrolling.
    - b. Zoom in both the time (x) and value (y) axis.
    - c. Pan/Scroll along the time axis or select a particular date to display.
    - d. Move analog tag plots vertically (in the value axis), either individually or as a group.
    - e. Display statistical data, including average, minimum and maximum values, for each plot.
  9. Ability to print displayed plots shall be provided.
  10. Presently viewed plot values shall be exportable to comma separated value (.csv) file, for use by 3<sup>rd</sup>-party data analysis software.
  11. Software shall be capable of saving groups of tags for later recall. There shall be no limit to the number of these groups.
- D. Alarm and Event Management

1. A minimum of the last 10,000 alarms and events shall be stored. A synchronization scheme shall be included, ensuring an exact copy of all alarm history resides on three server workstations. In the event that the primary or backup alarm history storage servers are not synchronized, the outdated server will backfill all missing data from the server with the most recent alarm history.
2. Alarms and events records shall include:
  - a. Time/Date stamp
  - b. The name and description of the alarm tag
  - c. Priority
  - d. Status of Alarm (i.e. Active, Acknowledged, Cleared). Alarm Acknowledgement records shall include the name of the user.
3. When an alarm condition occurs, the following sequence shall be provided:
  - a. An audible tone shall annunciate from each of the clients that have access to this alarm. This audible tone shall repeat until the alarm is acknowledged.
  - b. The alarm shall be added to the alarm history.
  - c. In the event the alarm has not been acknowledged within a user configurable time period, a telephone dialer shall begin notifying users on predefined rosters.
4. Software shall provide user-configurable settings for dead band and delay on analog alarms.
5. Users must be notified, both visibly and audibly, of the occurrence of an alarm, regardless which display is presently being viewed.
6. An alarm shall be acknowledged by selecting the alarm event from the alarm summary interface, and then choosing an 'Acknowledge' button. Alarms shall not be acknowledged simply by clicking on the alarm event. This two-step approach alleviates inadvertent alarm acknowledgement actions.
7. Alarm acknowledgement shall immediately be propagated to all user interfaces.
8. Operators shall be able to filter the alarms display to show current, unacknowledged, disabled, or historical alarm. Alarms shall be filterable by priority, or by alarm areas/groups.

9. Software shall allow the project to be split into functional areas such that the alarms a user sees/acknowledges are determined by the areas to which the user has access.
10. The application shall include a telephone dialer. The dialer shall support text-to-speech, and be automatically synchronized with the tag database at all times.
11. The telephone dialer shall share the SCADA system security, requiring users to enter a security code from a telephone keypad to access data and to acknowledge alarms. All alarm acknowledgements shall be recorded in the application event log.
12. The telephone dialer shall be capable of contacting different groups of system users based upon the service needs of the alarm. Each group should be capable of making up to 30 actions (email, SMS or text-to-speech phone call). Once the list of actions is complete, it must be capable of repeating, or activate another group of actions. Systems must be capable of making groups active/inactive to allow for shift changes and duty rosters. Changes to users in groups and active/inactive status changes shall be made without stopping and restarting the application or computer. There shall be no limit to the number of active and inactive groups. The telephone dialer must be able to switch between groups, based on time of day or changes in system values. Changes to these groups shall require sufficient user privileges.

The software must be configurable to detect rapid changes in value or lack of change over a defined period.

E. Report Generation System

1. Software shall be capable of producing reports using historical data. Reports may be created for one-time use.
2. Report generation shall be invoked either on demand, by a monitored event, or on a scheduled basis.
3. The report generation system shall be field configurable, allowing an operator to create, modify and generate reports, and export data to third party software. The report generation system shall be capable of displaying reports to the user interface display, or of exporting files per the following;
  - a. To a comma separated value (.csv) file
  - b. To a text file
  - c. Directly to a new MS Excel spreadsheet

- d. Via e-mail
  - 4. Reports generated via an Internet client shall be capable of printing to a local printer.
  - 5. Reports shall be able to display any analog, digital, or calculated tag data from the historical database.
- F. Application Upgrades/Support/Diagnostics/Debugging
- 1. Users shall be notified of application upgrades and the user shall not incur a cost for the upgrade.
  - 2. Support must include phone and email contact.
  - 3. Training shall be available for users of all levels (i.e. Operators, Developers, Administrators)
- G. Security
- 1. A password protected security system shall support an unlimited number of users, each user having a set of configurable privileges. Privileges for system configuration, data viewing, and operational activities shall be enabled or disabled on an individual user basis.
  - 2. User accounts shall be capable of being duplicated and assigned to new users.
  - 3. User passwords shall be encrypted using an algorithm that shall render their file storage unreadable.
  - 4. User passwords must be configurable to exceed a minimum length, contain alphabetic, numeric or special characters, or expire after a pre-set period.
  - 5. System shall allow creation of additional security privileges where necessary. The system shall allow an unlimited number of additional privileges.
  - 6. Changes to user access privileges can be made while the application is running and shall become effective immediately. Networked users whose accounts have been altered shall be affected by the changes immediately, not after stopping and starting the application.
  - 7. Security system shall be multi-session. It will validate multiple users simultaneously and record their session activity concurrently for all users.
- H. Internet Connectivity/Handheld Device Support/Monitoring
- 1. Internet connectivity shall not require the installation or configuration of a 3<sup>rd</sup> party Internet Server product (e.g. Microsoft IIS, Apache).

2. On-line configuration changes shall be pushed immediately to all Internet client interfaces, without requiring the browser interface to be restarted or refreshed.
  3. Internet clients shall require only the latest version of Microsoft Internet Explorer to communicate with the application. Internet clients shall require no software to be manually installed. Upon first contact with the Internet server serving the application, the Internet client shall automatically synchronize with the application and download any necessary files. All subsequent connections to the server shall synchronize the Internet client with the server.
  4. Internet client shall cache displays in order to reduce display access time.
  5. Internet client interfaces shall have graphical displays identical to the standard client and server interfaces and shall not require separate development time, or a separate development interface. The automatic display generation process shall not distort the graphical layout of any display.
  6. Software shall support access to alarms and real-time status information via hand-held devices.
  7. The HMI system shall include monitoring and alarm notification for a period of 3 years from the date of commissioning. Pricing for monitoring shall be included in the bid price for the equipment.
- I. Redundancy and Load Sharing
1. Software shall support a minimum of three levels of redundancy for input/output communications (i.e. primary server, 1<sup>st</sup> backup server, 2<sup>nd</sup> backup server). Software shall support a minimum of two levels of redundancy for all other services. In the event of primary server failure, software shall be capable of automatic fail-over to a backup server. No manual intervention shall be required.
  2. Software shall support distribution of services across any number of computers to facilitate load sharing.
  3. All servers shall be aware of which server is in control of each software process. No two servers shall perform the same function at the same time. This ensures efficient use of network communications and connections to input/output devices.
  4. Software must not require each redundant server to use a second network card to monitor the status of the primary server.

5. Backup servers shall be capable of load-sharing the various system operations (including input/output communications and data logging, alarm management, network communications management, security management).

#### J. Pre-built for Pump Stations

The supplied HMI will have the following features already setup, and display all values supported by the controller:

##### **Screens**

1. Station overview, including:
  - a. summary alarms including level alarm, level device fault, WAN comms fault, supply fault
  - b. numbers of pumps and pump summary alarm
  - c. comms statistics
  - d. 3-phase voltage
  - e. level
  - f. station name and ID
2. Pump status, including:
  - g. auto / off/ manual (hand)
  - h. detailed pump fault status
    - thermal
    - seal
    - delay fail input
    - critical fault
    - non-critical fault
    - under-current
    - over-current
    - phase fail
    - earth fault
  - i. Control for:
    - pump mode – auto / off/ manual (hand)
    - pump fault reset
  - j. Detailed pump data
    - 3-phase currents (where available at site)
    - power and kWh (where current monitoring module installed at site)
    - accumulators

3. Flow data:

- k. Derived flow data (if module installed in field hardware), or
- l. From flow meter if installed

**Configuration**

Configuration screens for:

- m. Changing set points of all pumps and alarms
- n. Changing between profiles in the field hardware

**Pre-configured reports**

The system will include standard reports relevant to pump station networks, including:

- o. Daily station report
- p. Monthly station report

**PART 4 - EXECUTION**

**4.01 INSPECTION**

- A. Inspect all equipment upon arrival at job site and prior to installation. Notify manufacturer of any damage and/or shortage.

**4.02 PREPARATION**

- A. Make corrections and/or repairs as required for items inspected and found being deficient.

**4.03 INSTALLATION**

- A. The system shall be provided for Owner installation at each respective site. Commissioning shall be provided by the System Supplier to insure functionality and Field Testing, as noted.

**PART 5 - SERVICE AND WARRANTY**

**5.01 SERVICE**

- A. The System Supplier shall have an authorized factory service center capable of completely servicing the equipment available to the Jefferson Parish Department of Sewerage. The manufacturer shall have a direct factory service center/stocking facility capable of completely servicing, and which stocks identical complete units, and spare parts for, the proposed system.

**5.02 WARRANTY**

- A. The manufacturer shall provide a prorated warranty for the units supplied to the Owner against defects in material and workmanship for a period of at least five (5) years, in writing, under the operating conditions presented by this project, in accordance with their standard published Municipal Warranty. The manufacturer shall demonstrate ability to support claimed warranty coverage by meeting all requirements of Section 4.01 of this specification.

DATE: 11/25/2015

INVITATION TO BID  
THIS IS NOT AN ORDER

BID NO.: 50-00114765

**JEFFERSON PARISH**  
PURCHASING DEPARTMENT  
P.O. BOX 9  
GRETNA, LA. 70054-0009  
504-364-2678

Page: 1

BUYER: [MOVALLE@jeffparish.net](mailto:MOVALLE@jeffparish.net)

BIDS WILL BE RECEIVED IN THE PURCHASING DEPARTMENT, SUITE 4400, JEFFERSON PARISH GENERAL GOVERNMENT BUILDING, 200 DERBIGNY STREET, GRETNA, LA 70053 UNTIL 2:00 PM, 12/10/2015 AND PUBLICLY OPENED THEREAFTER.

**LATE BIDS WILL NOT BE ACCEPTED**

Unless submitting via online (see Page 3), each bid must be submitted in a sealed envelope bearing on the outside; the name of the Bidder, his address, and the name of the project for which the bid is submitted and the bid number.

**NOTE: ONLY BIDS WRITTEN IN INK OR TYPEWRITTEN, AND PROPERLY SIGNED BY A MEMBER OF THE FIRM OR AUTHORIZED REPRESENTATIVE, WILL BE ACCEPTED. PENCIL AND/OR PHOTOSTATIC FIGURES OR SIGNATURES SHALL RESULT IN BID REJECTION.**

**INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS**  
**THE FOLLOWING INSTRUCTIONS APPLY TO ALL BIDS**

All bids submitted are subject to these instructions and general conditions and any special conditions and specifications contained herein, all of which are made part of this bid proposal reference. By submitting a bid, vendor agrees to comply with all provisions of Louisiana Law as well be in compliance with the Jefferson Parish Code of Ordinances, Louisiana Code of Ethics, applicable Jefferson Parish ethical standards and Jefferson Parish Resolution No. 113646 and/or Resolution No. 113647.

All vendors submitting bids must register as a Jefferson Parish vendor if not already yet registered. Bidders may be required to furnish current W-9 Forms and respective Tax Identification Numbers within 10 days after bid opening if such information is not on file or not up to date. Registration forms may be downloaded from [www.purchasing.jeffparish.net](http://www.purchasing.jeffparish.net) and clicking on Vendor Information.

All quotations shall be based on F.O.B. Agency warehouse or job site, anywhere within the Parish as designated by the Purchasing Department. This provision does not apply to public works projects

JEFFERSON PARISH requires all products to be new (current) and all work must be performed according to standard practices for the project. Unless otherwise specified, no aftermarket parts will be accepted. Unless otherwise specified, all workmanship and materials must have at least one (1) year guaranty, in writing, from the date of delivery and/or acceptance of the project. Any deviations or alterations from the specifications must be indicated and/or supporting documentation supplied with bid submission.

Bidders should submit all questions in writing and fax them to the Purchasing Department at (504) 364-2693 no later than FIVE (5) working days prior to bid opening. Bid numbers should be mentioned in all requests. Questions may also be emailed to the buyer for this bid at the email address listed above. If submitting online, vendors may send questions via the E-Procurement site no later than Five (5) working days prior to the bid opening.

If this bid requires a pre-bid conference (see Additional Requirements section), bidders are advised that such conference will be held to allow bidders the opportunity to identify any discrepancies in the bid specifications and seek further clarification regarding instructions. The Purchasing Department will issue a written response to bidders' questions in the form of an Addendum. Please note that all official communication will be expressed in the form of an addendum.

All formal Addenda require written acknowledgement on the bid form by the bidder. Failure to acknowledge an Addendum on the bid form shall cause the bid to be rejected. JEFFERSON PARISH reserves the right to award bid to next lowest responsive and responsible bidder in this event.

The purpose and intention of this invitation to bid is to afford all suppliers an equal opportunity to bid on all construction, maintenance, repair, operating supplies and/or equipment listed in this bid proposal. JEFFERSON PARISH WILL ACCEPT ONE BID ONLY FROM EACH VENDOR. Items bid must meet specifications.

Visit our website at [HTTP://PURCHASING.JEFFPARISH.NET](http://PURCHASING.JEFFPARISH.NET)

JEFFERSON PARISH will accept one price for each item unless otherwise indicated. Two or more prices for one item will result in bid rejection. Bidders are required to complete, sign and return the bid form and/or complete and return the associated line item pricing forms as indicated. Vendors must not alter the bid forms. Doing so will cause the bid to be rejected.

If the bid exceeds \$30,000.00 and the company is duly authorized to do business in the state of Louisiana, a corporate resolution must be submitted with the bid or the person signing the bid documents must be listed on the Louisiana Secretary of State's website as an officer of the corporation, unless bidder has otherwise complied with LSA-R.S. 38:2212(B)(5). If the bid is in excess of \$30,000 and bidder is registered out of the state of Louisiana, a corporate resolution must be submitted with the bid, unless bidder has otherwise complied with LSA-R.S. 38:2212(B)(5). Failure to comply will cause bid to be rejected; the Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event. Bids submitted by Owner or Sole Proprietorships must include certification that he or she owns the entity for which the bid is signed. Sole proprietors submitting bids for public works projects shall within 10 days after bid opening submit sole proprietorship certification.

NOTE: A sample corporate resolution can be downloaded from our website <http://purchasing.jeffparish.net> or you may provide your own document. A sample certification of sole proprietorship can also be downloaded from our website <http://purchasing.jeffparish.net> or you may provide your own document.

## INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

A. AWARD OF CONTRACT: JEFFERSON PARISH reserves the right to award contracts or place orders on a lump sum or individual item basis, or such combination, as shall in its judgment be in the best interest of JEFFERSON PARISH. Every contract or order shall be awarded to the LOWEST RESPONSIVE and RESPONSIBLE BIDDER, taking into consideration the CONFORMITY WITH THE SPECIFICATIONS and the DELIVERY AND/OR COMPLETION DATE. IN THE EVENT OF SPLIT AWARD, THE PURCHASING DEPARTMENT MAY CONTACT VENDORS TO REQUEST REQUIRED AFFIDAVITS. THOSE VENDORS WILL HAVE 10 DAYS FROM THE DATE OF NOTICE TO SUBMIT COMPLETE, SIGNED AND NOTARIZED AFFIDAVITS IN ORIGINAL FORMATS.

All bid prices shall remain valid for 45 days. Jefferson Parish and the lowest responsive and responsible bidder(s) by mutual written consent may mutually agree to extend the deadline for award by one (1) or more extensions of thirty (30) calendar days.

Preference is hereby given to materials, supplies, and provisions produced, manufactured or grown in Louisiana, quality being equal to articles offered by competitors outside the state. "LSA-R.S.38:2251-2261"

B. USE OF BRAND NAMES AND STOCK NUMBERS: Where brand names and stock numbers are specified, it is for the purpose of establishing certain minimum standards of quality. Bids may be submitted for products of equal quality, provided brand names and stock numbers are specified. Complete product data may be required prior to award.

C. CANCELLATION OF CONTRACT: JEFFERSON PARISH reserves the right to cancel all or any part if not shipped promptly. No charges will be allowed for parking or cartage unless specified in quotation. The order must not be filled at a higher price than quoted. JEFFERSON PARISH reserves the right to cancel any contract at anytime and for any reason by issuing a THIRTY (30) day written notice to the contractor.

For good cause and as consideration for executing a contract with Jefferson Parish, vendor conveys, sells, assigns and transfers to Jefferson Parish or its assigns all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of Louisiana, relating to the particular good or services purchased or acquired by Jefferson Parish.

D. PRICES: Jefferson Parish is exempt from paying sales tax under LSA-R.S. 47:301 (8)(c). All prices for purchases by Jefferson Parish of supplies and materials shall be quoted in the unit of measure specified and unless otherwise specified, shall be exclusive of state and Parish taxes. The price quoted for work shall be stated in figures. In the event there is a difference in unit prices and totals, the unit price shall prevail.

Quantities listed are for bidding purposes only. Actual requirements may be more or less than quantities listed.

Bidders are not to exclude from participation in, deny the benefits of, or subject to discrimination under any program or activity, any person in the United States on the grounds of race, color, national origin, or sex; nor discriminate on the basis of age under the Age Discrimination Act of 1975, or with respect to an otherwise qualified handicapped individual as provided in Section 504 of the Rehabilitation Act of 1973, or on the basis of religion, except that any exemption from such prohibition against discrimination on the basis of religion as provided in the Civil Rights Act of 1964, or Title VI and VII of the Act of April 11, 1968, shall also apply. This assurance includes compliance with the administrative requirements of the Revenue Sharing final handicapped discrimination provisions contained in Section 51.55 (c), (d), (e), and (k)(5) of the Regulations. New construction or renovation projects must comply with Section 504 of the 1973 Rehabilitation Act, as amended, in accordance with the American National Standard Institute's specifications (ANSI A17.1-1961).

Advertised bids will be tabulated and a copy of the tabulation will be forwarded to each responding bidder.

**IN ACCORDANCE WITH STATE REGULATIONS JEFFERSON PARISH OFFERS ELECTRONIC PROCUREMENT TO ALL VENDORS**

**This Electronic Procurement System allows vendors the convenience of reviewing and submitting bids online. This is a secure site and authorized personnel have limited read access only. Please note requirements contained in this bid package for electronic bid submission.**

**Please visit the Purchasing Department webpage at <http://purchasing.jeffparish.net> to register and review Jefferson Parish solicitations.**

The general specifications for construction projects and the purchase of materials, services and/or supplies are those adopted by the JEFFERSON PARISH Council by Resolution No. 113646 or 113647 dated 12/09/09. The general conditions adopted by this resolution shall be considered as much a part of this document as if they were written wholly herein. A copy may be obtained from the Office of the Parish Clerk, Suite 6700, Jefferson Parish General Government Building, 200 Derbigny Street, Gretna, LA 70053. You may also obtain a copy by visiting the Purchasing Department webpage at <http://purchasing.jeffparish.net> and clicking on Online Forms.

**ADDITIONAL REQUIREMENTS FOR THIS BID**

PLEASE MATCH THE NUMBERS PRINTED IN THIS BOX WITH THE CORRESPONDING INSTRUCTIONS BELOW.

**10,13,15**

1. All bidders must attend the pre-bid conference in relation to this bid; attendance is mandatory. Failure to attend will prohibit a company from submitting a bid. Vendors arriving after the mandatory pre-bid conference begins will not be allowed to sign in as evidence of attendance.
2. Attendance to this pre-bid conference is optional. However, failure to attend the pre-bid conference shall not relieve the bidder of responsibility for information discussed at the conference. Furthermore, failure to attend the pre-bid conference and inspection does not relieve the successful bidder from the necessity of furnishing materials or performing any work that may be required to complete the work in accordance with the specification with no additional cost to the owner.
3. Contractor must hold current applicable JEFFERSON PARISH licenses with the Department of Inspection and Code Enforcement. Contractor shall obtain any and all permits required by the JEFFERSON PARISH Department of Inspection and Code Enforcement. The contractor shall be responsible for the payment of these permits. All permits must be obtained prior to the start of the project. Contractor must also hold any and all applicable Federal and State licenses. Contractor shall be responsible for the payment of these permits and shall obtain them prior to the start of the project.
4. A LA State Contractor's License will be required in accordance with LSA R.S. 37-2150 et. seq. and such license number will be shown on the outside of the bid envelope. Failure to comply will cause the bid to be rejected. Additionally if submitting the bid electronically, then the license number must be entered in the appropriate field in the Electronic Procurement system. Failure to comply will cause the bid to be rejected.
5. It is the bidder's responsibility to visit the job site and evaluate the job before submitting a bid.

**INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS**

6. Job site must be clean and free of all litter and debris daily and upon completion of the contract. Passageways must be kept clean and free of material, equipment, and debris at all times. Flammable material must be removed from the job site daily because storage will not be permitted on the premises. Precautions must be exercised at all times to safeguard the welfare of JEFFERSON PARISH and the general public.
7. PUBLIC WORKS BIDS: All awards for public works in excess of \$5,000.00 will be reduced to a formal contract which shall be recorded at the contractor's expense with the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. A price list of recordation costs may be obtained from the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. All awards in excess of \$25,000.00 will require both a performance and a payment bond. Unless otherwise stated in the bid specifications, the performance bond requirements shall be 100% of the contract price. Unless otherwise state in the bid specifications, the payment bond requirements shall be 100% of the contract price. Both bonds shall be supplied at the signing of the contract.
8. NON-PUBLIC WORKS BIDS: A performance bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The performance bond shall be supplied at the signing of the contract.
9. NON-PUBLIC WORKS BIDS: A payment bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The payment bond shall be supplied at the signing of the contract.
10. Unless otherwise stated in the bid specifications, the successful bidder will be required to procure standard insurance policies evidencing Parish-mandated insurance requirements as indicted on the attached sheet. The current certificate of insurance must be submitted by low bidder within 10 days after bid opening to the Purchasing Department. Failure to comply will cause bid to be rejected. JEFFERSON PARISH reserves the right to award bid to the next lowest responsive and responsible bidder in this event.
11. A bid bond will be required with bid submission in the amount of 5% of the total bid, unless otherwise stated in the bid specifications. Acceptable forms shall be limited to cashier's check, certified check, or surety bid bond. All sureties must be in original format (no copies) If submitting a bid online, vendors must submit an electronic bid bond through the respective online clearinghouse bond management system(s) as indicated in the electronic bid solicitation on Central Auction House. No scanned paper copies of any bid bond will be accepted as part of the electronic bid submission.
12. This is a requirements contract to be provided on an as needed basis. JEFFERSON PARISH makes no representations on warranties with regard to minimum guaranteed quantities unless otherwise stated in the bid specifications.
13. Freight charges should be included in total cost when quoting. If not quoted FOB DELIVERED, freight must be quoted as a separate item. Bid may be rejected if not quoted FOB DELIVERED or if freight charges are not indicated on bid form.
14. PUBLIC WORKS BIDS - Completed, Signed and Properly Notarized Affidavits (in Original Format) required; Non-Collusion Affidavit, Non-Collusion Affidavit, Campaign Contribution Affidavit and E-Verify Affidavit must be completed, signed, notarized and submitted by low bidder within 10 days after bid opening to the Purchasing Department on all solicitations for construction, alteration or demolition of public building or project, including but not limited to requirements found in LSA-RS 38:2212.9; LSA-RS 38:2212.10; LSA-RS 38:2224; Code of Ordinances, Jefferson Parish, Louisiana, Sec 2-923.1. Failure to comply will cause bid to be rejected; the Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event. For the convenience of vendors, all affidavits have been combined into one form entitled PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format for the bid to be considered responsive.
15. NON PUBLIC WORK BIDS - Completed, Signed and Properly Notarized Affidavits (in Original Format) required; Non-Collusion Affidavit, and Campaign Contribution Affidavit must be completed, signed, notarized and submitted by low bidder within 10 days after bid opening to the Purchasing Department. See LSA-RS 38:2212.10; LSA-RS 38:2224; Code of Ordinances, Jefferson Parish, Louisiana, Sec 2-923.1 Failure to comply will cause bid to be rejected; the Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event. For the convenience of vendors, all affidavits have been combined into one form entitled NON PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format for the bid to be considered responsive.
16. Since a bid surety is required, bid response may not be faxed. Bid submission will only be accepted online or as delivered to the Purchasing Department, 200 Derbigny Street, Suite 4400, Gretna, LA 70053 by 11am on the bid due date. All sureties must be in original format (no copies).

It shall be the duty of every parish officer, employee, department, agency, special district, board, and commission: and the duty of every contractor, subcontractor, and licensee of the parish, and the duty of every applicant for certification of eligibility for a parish contract or program, to cooperate with the Inspector General in any investigation, audit, inspection, performance review, or hearing pursuant to Jefferson Parish Code of Ordinances Section 2-155.10(19). By submitting a bid, vendor acknowledges this and will abide by all provisions of the referenced Jefferson Parish Code of Ordinances.

**All Public Work Projects are required to use the Louisiana Uniform Public Work Bid Form**

All prices must be held firm unless an escalation provision is requested in this bid. Jefferson Parish will allow one escalation during the term of the contract, which may not exceed the U.S. Bureau of Labor Statistics National Index for all Urban Consumers, unadjusted 12 month figure. The most recently published figure issued at the time an adjustment is requested will be used. A request must be made in writing by the vendor, and the escalation will only be applied to purchases made after the request is made.

Are you requesting an escalation provision?

YES \_\_\_\_\_ NO

MAXIMUM ESCALATION PERCENTAGE REQUESTED \_\_\_\_\_%

INITIAL BID PRICES WILL REMAIN FIRM THROUGH THE DATE OF February 28, 2016

For the purposes of comparison of bids when an escalation provision is requested, Jefferson Parish will apply the maximum escalation percentage quoted by the bidder to the period to which it is applied in the bid. The initial price and the escalation will be used to calculate the total bid price. It will be assumed, for comparison of prices only, that an equal amount of material or labor is purchased each month throughout the entire contract.

**DELIVERY: FOB JEFFERSON PARISH**

INDICATE DELIVERY DATE ON EQUIPMENT AND SUPPLIES

24 weeks

LOUISIANA CONTRACTOR'S LICENSE NO.: (if applicable) \_\_\_\_\_

**THIS SECTION MUST BE COMPLETED BY BIDDER:**

FIRM NAME: CAD Control Systems

ADDRESS: 1017 Freeman Road

CITY, STATE: Broussard, LA ZIP: 70518

TELEPHONE: (337) 369-3737 FAX: (337) 369-3724

EMAIL ADDRESS: jaldridge@cadoil.com

In the event that addenda are issued with this bid, bidders MUST acknowledge all addenda on the bid form. Bidder must acknowledge receipt of an addendum on the bid form as indicated. Failure to acknowledge any addendum on the bid form will result in bid rejection.

Acknowledge Receipt of Addenda: NUMBER: 50-00114765-1

NUMBER: 50-00114765-2

NUMBER: 50-00114765-3

NUMBER: 50-00114765-4

TOTAL PRICE OF ALL BID ITEMS: \$ 390,085.41

AUTHORIZED SIGNATURE: Reggie Welty

REGGIE WELTY  
Printed Name

TITLE: PRESIDENT

SIGNING INDICATES YOU HAVE READ AND COMPLY WITH THE INSTRUCTIONS AND CONDITIONS.

NOTE: All bids should be returned with the BID NUMBER and BID OPENING DATE indicated on the outside of the envelope submitted to the Purchasing Department.



INVITATION TO BID FROM JEFFERSON PARISH - continued

BID NO.: 50-00114765

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
<p>VENDOR TO FURNISH MATERIAL &amp; EQUIPMENT &amp; TO PROVIDE FACTORY START-UP FOR A REMOTE TELEMETRY UNIT SCADA PANEL &amp; MONITORING SYSTEM FOR JEFFERSON PARISH DEPARTMENT OF SEWERAGE, LIFT STATIONS WITH VFDs.</p>					
<p>AT THE FOLLOWING LIFT STATIONS:</p>					
<p>East Bank                      G7-11 Severn &amp; 20th (Lakeside Mall)                      E3-6 Humane Way                      F7-3 Neyrey &amp; Melville Dewey                      H7-6 Focis &amp; Veterans                      H4-1 Deckbar &amp; Railroad                      D8-7 Irving &amp; St. Mary</p>					
<p>West Bank                      I-8-2 Weigand &amp; Landers                      L-13-2 Randolph &amp; Glaise</p>					
1	8.00	EA	0010 - SCADA RTU Panel Item model: SCADA RTU	<del>\$17,961.62</del>	<del>\$143,692.96</del>
2	1.00	EA	0020 - 3 years Monitoring of SCADA Item Model: Monitoring	<del>\$220,580.29</del>	<del>\$220,580.29</del>
3	8.00	EA	0030 - Factory Startup Item Model: Startup	<del>\$3,226.52</del>	<del>\$25,812.16</del>



**Tom Schedler**  
**Secretary of State**

**State of Louisiana**  
**Secretary of State**

**COMMERCIAL DIVISION**  
**225.925.4704**



Fax Numbers  
 225.932.5317 (Admin. Services)  
 225.932.5314 (Corporations)  
 225.932.5318 (UCC)

Name	Type	City	Status
CAD CONTROL SYSTEMS, INC.	Business Corporation	BROUSSARD	Active

**Previous Names**

- CAD OILFIELD SPECIALTIES, INC. (Changed: 5/23/2011)
- CAD OILFIELD SPECIALTY, INC. (Changed: 8/15/2000)
- CAD OILFIELD DRILLING SPECIALTY, INC. (Changed: 11/30/1987)

**Business:** CAD CONTROL SYSTEMS, INC.

**Charter Number:** 34104733D

**Registration Date:** 1/26/1983

**Domicile Address**

1017 FREEMAN ROAD  
 BROUSSARD, LA 70518

**Mailing Address**

P. O. BOX 796  
 BROUSSARD, LA 70518-0796

**Principal Office Address**

1017 FREEMAN ROAD  
 BROUSSARD, LA 70518

**Status**

**Status:** Active  
**Annual Report Status:** In Good Standing  
**File Date:** 1/26/1983  
**Last Report Filed:** 1/11/2016  
**Type:** Business Corporation

**Registered Agent(s)**

<b>Agent:</b>	REGINALD A. WELTY
<b>Address 1:</b>	106 SOUTHWARK RD.
<b>City, State, Zip:</b>	LAFAYETTE, LA 70508
<b>Appointment Date:</b>	1/23/2001

**Officer(s)**

Additional Officers: No

<b>Officer:</b>	REGINALD A. WELTY
<b>Title:</b>	President
<b>Address 1:</b>	106 SOUTHWARK RD.
<b>City, State, Zip:</b>	LAFAYETTE, LA 70508

### Amendments on File (8)

Description	Date
Domicile, Agent Change or Resign of Agent	2/24/1986
Name Change	11/30/1987
Name Change	8/15/2000
Domicile, Agent Change or Resign of Agent	10/11/2001
Disclosure of Ownership	3/5/2008
Disclosure of Ownership	3/24/2008
Name Change	5/23/2011
Amendment	4/20/2012

**Print**

Non-Public Works Bid

AFFIDAVIT

STATE OF Louisiana

PARISH/COUNTY OF Iberia

BEFORE ME, the undersigned authority, personally came and appeared: BRENT J. BERARD  
\_\_\_\_\_, (Affiant) who after being by me duly sworn, deposed and said that  
he/she is the fully authorized CFO of CAD CONTROL SYSTEMS (Entity),  
the party who submitted a bid in response to Bid Number 50-0014765, to the Parish of  
Jefferson.

Affiant further said:

Campaign Contribution Disclosures

**(Choose A or B, if option A is indicated please include the required attachment):**

Choice A \_\_\_\_\_ Attached hereto is a list of all campaign contributions, including the date and amount of each contribution, made to current or former elected officials of the Parish of Jefferson by Entity, Affiant, and/or officers, directors and owners, including employees, owning 25% or more of the Entity during the two-year period immediately preceding the date of this affidavit or the current term of the elected official, whichever is greater. Further, Entity, Affiant, and/or Entity Owners have not made any contributions to or in support of current or former members of the Jefferson Parish Council or the Jefferson Parish President through or in the name of another person or legal entity, either directly or indirectly.

Choice B  there are **NO** campaign contributions made which would require disclosure under Choice A of this section.

Debt Disclosures

**(Choose A or B, if option A is indicated please include the required attachment):**

**Choice A** \_\_\_\_\_ Attached hereto is a list of all debts owed by the affiant to any elected or appointed official of the Parish of Jefferson, and any and all debts owed by any elected or appointed official of the Parish to the Affiant.

**Choice B**  There are **NO** debts which would require disclosure under Choice A of this section.

Affiant further said:

That Affiant has employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for Affiant; and

*[The remainder of this page is intentionally left blank.]*

That no part of the contract price received by Affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for Affiant.



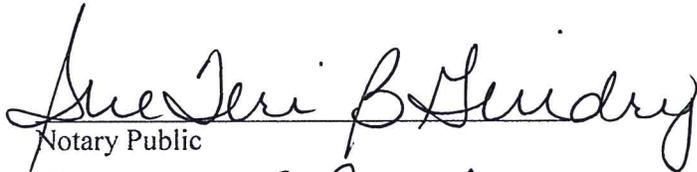
Signature of Affiant

BRENT J. BERARD

Printed Name of Affiant

SWORN AND SUBSCRIBED TO BEFORE ME

ON THE 16<sup>th</sup> DAY OF December, 2016.



Notary Public

Sue Teri B Guidry

Printed Name of Notary

62749

Notary/Bar Roll Number

My commission expires death.

Sue Teri B. Guidry  
NOTARY PUBLIC, Parish of Iberia  
Commission expires at death  
Notary ID #62749





CAD CONTROL SYSTEMS

January 13, 2016

Mr. Glenn Miller  
Jefferson Parish Dept. of Sewerage  
4901 Jefferson Hwy.  
New Orleans, LA 70121

RE: Remote Telemetry Unit SCADA Panel & Monitoring System  
Quote No. 11416-KK  
Bid Number 50-00114765

I am sending you this proposal in reference to your recent request.

**One (1) – Remote Telemetry Unit Panel** – Consists of:

- (A) One (1) - Siemens 1500 Series PLC in ET 200SP form factor containing the following I/O:
- 16 Digital Inputs
  - 16 Digital Outputs
  - 4 Analog Inputs
  - 4 Analog Outputs
- (B) One (1) - Ethernet to Cellular 4G network converter (provider to be determined by customer):
- Provides communications from the RTU Panel back to the Main SCADA Servers
- (C) One (1) – Ethernet to Serial communications coupler:
- Provides communications from the TYU motor controller
    - Communications type to be configured as needed; Modbus ASCII, Modbus RTU, Canbus, RS232, RS485, etc.
- (D) One (1) - 6" HMI to display local diagnostics of PLC Hardware and Communication
- (E) One (1) - Siemens Smart Ethernet Switch
- (F) One (1) – Lockable Hasp
- (G) Din rail mounted UPS to power the enclosure in the event of a power outage

1017 Freeman Road  
Broussard, LA 70519  
337.369.3737  
800.543.1968  
Fax: 337.369.3724  
[sales@cadoil.com](mailto:sales@cadoil.com)  
[www.cadoil.com](http://www.cadoil.com)

The RTU system shall be capable of automating a minimum of two pumps (lead/lag configuration). Automated pump control can be bypassed by way of an HOA (Hand, Off, Auto) switch. Manual operation of pumps will not affect data logging.

RTU system data shall be logged locally in the PLC, providing up to 50,000 lines of logged data. This data shall be available on the included HMI screen to aide in troubleshooting system faults. This data can also be collected by means of remote PC using a standard web browser.

RTU system data shall also be sent to the remote SCADA servers for permanent storage. SCADA server specifications can be found in the SCADA Software section of this tech spec.

The local HMI shall display local system statuses, settings, and diagnostics. System settings may be adjusted by way of HMI by an operator with the appropriate security clearance. Settings may include, but are not limited to, alarm debounce timers, deadbands, start/stop setpoints, alarm setpoints, enablements/disablements, etc. Any changes in system settings shall be logged both locally and at the remote SCADA servers.

The RTU system is fully scalable. However, any additions to the above listed specs will require a change order and may or may not require an adjustment to pricing.

The RTU panel will be built and inspected to meet UL 508A standards.

**\*NOTE\***

***End user shall be responsible for providing Cellular Network services contract. Services shall include static & public connections in order to allow reliable access to end devices.***

**SCADA Software**

The SCADA system shall include the following:

- (A) One (1) - 19" rack to house the SCADA Servers
- (B) Two (2) - Redundant industrial servers including the following:
  - Keyboard, monitor, & mouse
  - Hot swappable Hard Drives in RAID configuration
  - SCADA Software for logging of data
  - RTU Configuration Software for system expandability
  - Two G-Bit Ethernet Cards
  - One Dial-Up Modem Card
- (C) One (1) - UPS to maintain operation during power outage
- (D) One (1) - Backup Server for archiving Redundant Server Pair
- (E) Tech support subscription for server hardware repairs
  - Tech support subscription covers both redundant industrial servers plus backup server in case of hardware failure.
  - Faulty hardware can be replaced within 24 hours of failure

The SCADA system shall record all system status data from each installed RTU. Data storage shall be maintained for a minimum of 5 years and is expandable to include more RTU panels for future use. System status data can include, but is not limited to, all user access login, alarms, pump statuses, level statuses, flow rates, temperatures, communication statuses, etc.

Digital input/output data will be recorded on change. Alarm data will be recorded on incoming, acknowledgement, and outgoing. System events (user login, diagnostics, etc.) will be logged on change. System analogs will be logged cyclically (frequency to be determined on a per need basis).

SCADA system shall display an overview of all RTU systems. Selecting any RTU system shall display detailed information of that RTU and allow operators with appropriate security clearance to control the RTU and/or adjust system settings. System diagnostics can also be viewed for troubleshooting purposes.

SCADA system shall have different levels of access and privileges, with each level having a unique login and password. User credentials will be able to be updated by an administrator at any time without having to restart software.

RTU station data can be displayed as trends for data analysis. Displayed trend settings are adjustable by operator for detailed analysis of multiple system functions. Separate trends will be color coded to make analysis simple. Trends can be printed at any time, or exported to .csv file for analysis in 3<sup>rd</sup> party software.

System alarms and events can be displayed in list format. The alarm & event list can be filtered for display of specific information (filters include, but are not limited to date & time, event & alarm types, event & alarm names, event & alarm locations, etc.) The alarm & even list can be printed at any time, or exported to .csv file for analysis in 3<sup>rd</sup> party software.

When an alarm occurs the following sequence shall be provided:

- An audible tone shall annunciate from each of the clients that have access to this alarm. This audible tone shall repeat until the alarm is acknowledged.
- The alarm shall be added to the alarm history.
- In the event the alarm has not been acknowledged within a user defined time period, a telephone dialer shall begin notifying users on pre-defined rosters.

Future system expansion can be carried out on the SCADA servers, including additional RTU panels, program updates, program changes, and data logging changes.

SCADA HMI system will be accessible via a web browser and shall provide graphical displays identical to the main SCADA server. Hand-held mobile devices will be able to access real time status and alarms.

**\*NOTE\***

***End user shall be responsible for providing Cellular Network services contract. Services shall include static & public connections in order to allow reliable access to end devices.***

**Warranty - 5 years with a Force Majeure exemption:**

Force Majeure exemption: 20.1 Except for the duty to make payments hereunder when due, and the indemnification provisions under this Purchase Order, neither the Buyer nor the Seller shall be responsible to the other for any delay, damage or failure caused by or occasioned by a Force Majeure Event. "Force Majeure Event" shall mean events or circumstances that are unforeseen at the time of entering into a Purchase Order and are beyond the reasonable control of the Parties, as the case may be, and are unavoidable notwithstanding the reasonable care, diligence and good operating procedures of the Party affected and which renders the execution of the obligations of the affected Party impossible, whether legally or physically. Events of force majeure shall include but not be limited to, acts of God, epidemics, sabotage, acts of terrorism war, riot, natural catastrophes, acts of civil or military authority and strikes or other similar

events or circumstances. All such conditions preventing performance shall be remedied as soon as reasonably possible, except that the settlement of strikes shall be at the discretion of the Party so affected. The Buyer, in its sole discretion, reserves the right to (i) cancel a Purchase Order or (ii) extend the time for delivery and/or performance by the Seller, should such delays by the Seller, in the Buyer's sole judgment, adversely affect the Buyer, time being of the essence. The Seller shall not be excused from the performance of its obligations under this Purchase Order where alternative sources of supply of materials, goods and services are available. Delays due to the above causes, or any of them, shall not be deemed to be a breach of or failure to perform under this Purchase Order. 20.2 The Seller shall notify the Buyer within five (5) calendar days from the time that any Force Majeure Event arises or occurs and shall use all reasonable endeavors to overcome or mitigate the effects of such Force Majeure Events. The Seller is not entitled to an adjustment to its compensation under a Purchase Order by reason of a Force Majeure Event.

Should you have any questions concerning this quote, please do not hesitate to contact me.

Sincerely,

Johnny Aldridge, Sales  
CAD CONTROL SYSTEMS

*File Path: Sales\Quotes\ 2015\SCADA\Jefferson Parish\11416-KK*



CAD CONTROL SYSTEMS

Scope of Supply

January 13, 2016

Jefferson Parish Dept. of Sewerage

Mr. Glenn Miller

Document Name: 11416-KK (Scope of Supply)

Technical Specification Number	11416-KK
Quote Generated By:	Kelsey Piro
Quote Reviewed By:	Andre' Vige'

Scope of Specification			
ITEM	DESCRIPTION	QTY	PRICE (USD)
1	RTU SCADA Panel	8	\$17,961.62 each <b>\$143,692.96 Total</b>
2	Monitoring of SCADA (3 years)	1	<b>\$220,580.29</b>
3	Factory Startup	8	\$3,226.52 each <b>\$25,812.16 Total</b>
<b>Scope Total</b>			<b>\$390,085.41</b>

1017 Freeman Road  
 Broussard, LA 70519  
 337.369.3737  
 800.543.1968  
 Fax: 337.369.3724  
[sales@cadoil.com](mailto:sales@cadoil.com)  
[www.cadoil.com](http://www.cadoil.com)



CAD CONTROL SYSTEMS

Scope of Supply

DELIVERY	
Weeks from Accepted Purchase Order by CAD Control Systems	24 weeks ARO
Quote Validity Period	45 days from Quote Submission
Warranty	5 Years with a Force Majeure exemption defined in Technical Specification.
Delivery time frame is based on current CAD production schedule. Actual delivery shall be confirmed at time of purchase order issuance.	
Shipment of equipment	F.O.B From CAD Control Systems, Inc. 1017 Freeman Rd Broussard, LA 70518-0796 USA

PAYMENT TERMS	
Due At Time Of Order 30 Day Net Of Invoice	100% of Purchase order

Should you have any questions concerning this quote, please do not hesitate to contact me.

Sincerely,

Johnny Aldridge, Sales

CAD CONTROL SYSTEMS

1017 Freeman Road  
 Broussard, LA 70519  
 337.369.3737  
 800.543.1968  
 Fax: 337.369.3724  
[sales@cadoil.com](mailto:sales@cadoil.com)  
[www.cadoil.com](http://www.cadoil.com)



# JEFFERSON PARISH DEPARTMENT OF PURCHASING

WWW.JEFFPARISH.NET

JOHN F. YOUNG, JR.  
PARISH PRESIDENT

BRENDA J. CAMPOS  
DIRECTOR

December 8, 2015

## ADDENDUM # 1

Bid No.: 50-00114765

Bid Opening Date: December 10, 2015, 2:00 PM  
Postponing date to: January 5, 2016, 2:00 PM

For: Vendor to Furnish Material and Equipment and to Provide Factory Start-Up for a Remote Telemetry Unit SCADA Panel and Monitoring System for Jefferson Parish Department of Sewerage, Lift Station with VFDs

---

➤ **BID OPENING DATE HAS BEEN POSTPONED TO: January 5, 2016, 2:00 PM**

Answers to vendor questions are pending.

Sincerely,

*Melissa Ovalle*

---

Melissa Ovalle, Buyer II  
Jefferson Parish Purchasing Department

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Updated: December 8, 2015



# JEFFERSON PARISH DEPARTMENT OF PURCHASING

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JOHN F. YOUNG, JR.  
PARISH PRESIDENT

BRENDA J. CAMPOS  
DIRECTOR

December 23, 2015

## ADDENDUM # 2

Bid No.: 50-00114765

Bid Opening Date: January 5, 2016, 2:00 PM

**For: Vendor to Furnish Material and Equipment and to Provide Factory Start-Up for a Remote Telemetry Unit SCADA Panel and Monitoring System for Jefferson Parish Department of Sewerage, Lift Station with VFDs**

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### ➤ **CLARIFICATION OF SPECIFICATIONS:**

**Addendum answers bidder questions to clarify specifications.**

**QUESTION:**

I would appreciate if you could tell us more about the existing Controller / Hardware / Owner's Equipment which is currently in use as the RTU, as mentioned in the bid (Part 1 – 1.01), have to connect with that. Secondly, Is there any specific RTU that the Owner has in mind for the application or he is open to any product that meets the provided specifications?

**ANSWER:**

The existing controller is the Xylem SmartRun VFD & MultiSmart Pump Controller.

**QUESTION:**

Could you please elaborate on the existing control panels and internal equipment i.e. the manufacturer's brand other specifications?

**ANSWER:**

The existing equipment is Xylem SmartRun VFDs. Most units are 5 & 7.5 HP and also the MultiSmart

**QUESTION:**

Is there any existing Cloud Based Control and Monitoring System in place? If not, does the cost of setting up one be incurred by the Owner separately or added as a onetime cost in the bid?

**ANSWER:**

Yes. The existing system currently has 2 RTUs installed. If a different system is proposed, the supplier should include set up costs for the proposed equipment and existing RTUs to provide like functionality.

**QUESTION:**

Is there any existing contract with any cellular network provider?

**ANSWER:**

Yes. AT&T or Verizon

**QUESTION:**

Could you please elaborate of the security code authentication in terms of accessing data in case of an alarm authentication?

**ANSWER:**

Users set up a security on the web interface for alarm acknowledgement.



# JEFFERSON PARISH DEPARTMENT OF PURCHASING

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PARISH PRESIDENT

BRENDA J. CAMPOS  
DIRECTOR

**QUESTION:**

Could you please elaborate on whether the three levels of redundancy are on the software level or the OPC server level?

**ANSWER:**

They are on the OPC server level.

**QUESTION:**

Could you elaborate what you mean by load sharing?

**ANSWER:**

High traffic load sharing may be required in the event of processor anomalies or when multiple users attempt simultaneous access.

**QUESTION:**

"Internet clients shall require only the latest version of Microsoft Internet Explorer to communicate with the application. Internet clients shall require no software to be manually installed. Upon first contact with the Internet server servicing the application, the Internet client shall automatically synchronize with the application and download any necessary files. All subsequent connections to the server shall synchronize the Internet client with the server."

Our software required an Industry Standard Platform termed "Java Runtime" which would be required to be installed only once by the client upon 1<sup>st</sup> activation. It is generally required on every machine in order to run Java applications. Would that also fall in the above mentioned statement?

**ANSWER:**

Yes. Provided all other functionality is provided.

**QUESTION:**

Could you please elaborate whether the "outdated server backfill" updating is required to be done on the database level or the HMI software level?

**ANSWER:**

Data comparators and date comparators are used by the data scheme. The backfill shall occur at both the database and HMI level.

**QUESTION:**

It is mentioned that the alarm notification requires SMS and Voice notification dialer. Who incurs the reoccurring cost of the incoming/outgoing calls and SMS? Is there an existing phone line in place?

**ANSWER:**

The dialer function is accomplished at the server level and is included in the monitoring fee that is provided for 3 years. SMS costs are the responsibility of the individual subscriber data plan.

**QUESTION:**

What do you mean by 3 years of monitoring? Could you please elaborate?

**ANSWER:**

Vendor will provide 3 years of monitoring service.

**QUESTION:**

Is this an addition to an existing SCADA system or is it a new standalone system?

**ANSWER:**

A new standalone system.



# JEFFERSON PARISH DEPARTMENT OF PURCHASING

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PARISH PRESIDENT

BRENDA J. CAMPOS  
DIRECTOR

## **QUESTIONS:**

Specifications – page 10 of 24

### D. RTU Capabilities and Features

4. The RTU shall be furnished with a minimum of 6 communication ports with true multitasking and allow simultaneous support of all ports. Ports can be configured for local input/output (I/O), Operator Interface/display support, LAN/WAN, etc.
5. The RTU processor shall meet the following, as a minimum:
  1. CPU - Clock speed of 500 MHz capable of 900M IPS and 3.5G FLOPS.
  2. 16 MB - 32 bit Dynamic RAM
  3. 64 MB FLASH
  4. 256 MB Static RAM
  5. 2 (Two) Ethernet ports (RJ45)
  6. 2 (Two) RS-232 Serial Communications (115 KB PS) (DB9)
  7. 2 (Two) RS485 Serial Multi-Drop Communications
  8. 1 (One) Local input/output port CANBUS
  9. 1 (One) Display Port

Will each RTU need to have all 6 communications ports whether used or not (significantly drives up price per RTU)?

Or must each RTU be capable of all 6, but only contain the ports needed for that specific location with the possibility of future expansion (significant cost savings per RTU)?

## **ANSWER:**

YES – The comm ports need to be on the RTU. Programming changes or multi-platform comms may be required in the future.

## **QUESTION:**

Specifications – Page 13 of 24

### 11. RTU Communications Capabilities:

C. The RTU system shall allow operations over multiple (LAN/WAN) communication media, affording the most efficient and reliable solution, including: DC metallic wire pair, dedicated leased voice grade phone line, standard dial up phone line, wireless cellular dial up system, cable TV, Fiber optics, Ethernet 10/100 BaseT, VHF Radio, UHF Radio, Dedicated Microwave Radio, and Ethernet Wireless. System communication architecture can be based on any one or a combination of these media. The communications speed shall be set to the highest speed allowed by the selected media.

Same question as above. Will this be on an "As Needed" basis (significant cost savings)?

## **ANSWER:**

All of the options listed should be provided in the RTU. Future comms may require some or all of the listed methods of communication. The intention with this requirement is to provide the greatest flexibility and number of options for the parish.

Updated: December 23, 2015



# JEFFERSON PARISH DEPARTMENT OF PURCHASING

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PARISH PRESIDENT

BRENDA J. CAMPOS  
DIRECTOR

**QUESTION:**

Specifications – Page 14 of 24

12. Input/Output Systems:

C. Remote I/O modules shall be connected to the RTU by high speed serial communications. Remote I/O modules shall support multiple communications protocols, including Modbus ASCII and RTU, allowing connection to any device supporting these protocols.

Am I correct in assuming that the Remote I/O discussed here refers to existing equipment that the RTU panel will communicate with & control?

(For instance, RTU will communicate over Modbus ASCII and/or RTU to the existing motor controllers, flow meters, temp probes, etc.)

**ANSWER:**

YES – but the system shall be capable of being expanded by adding I/O as necessary.

**QUESTION:**

Specifications – Page 16 of 24

B. Graphics and Displays

4. Software shall include a menu for navigating from one display to another. Menu shall be configurable to allow logical grouping of displays where necessary.

Please provide clarification on "logical grouping". I am not sure what is meant by this.

**ANSWER:**

An example would be grouping of Analog Trended Values for like pumps in a station. Grouping of this data will allow comparative analysis for determining station performance.

**QUESTION:**

Specifications – Page 21 of 24

I. Redundancy and Load Sharing

1. Software shall support a minimum of three levels of redundancy for input/output communications (i.e. primary server, 1st backup server, 2<sup>nd</sup> backup server). Software shall support a minimum of two levels of redundancy for all other services. In the event of primary server failure, software shall be capable of automatic fail-over to a backup server. No manual intervention shall be required.

Our preferred method of data log redundancy:

- True redundant pair (primary and secondary servers with real-time data sync, RAID Harddrive configuration, auto fail-over, and auto back logging of data if/when required)
- Off-site data storage in which the redundant pair archives data, providing dual redundancy of data backup. This off-site storage location can be cloud based or hardware based.

I find the off-site data archiving solution to be more robust against outside "hackers", where full-time dual redundant servers leave the possibility of all three servers to be simultaneously marginalized, where archiving leaves a communication path to the off-site storage open only momentarily during the off-loading of data making it more difficult to attack.

Updated: December 23, 2015



# JEFFERSON PARISH DEPARTMENT OF PURCHASING

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PARISH PRESIDENT

BRENDA J. CAMPOS  
DIRECTOR

Will the above described type of redundancy be acceptable?

**ANSWER:**

YES this would be acceptable provided this is an automated service and requires no human intervention to accomplish.

**QUESTION:**

Specifications – Page 21&22 of 24

I. Redundancy and Load Sharing

4. Software must not require each redundant server to use a second network card to monitor the status of the primary server.
5. Backup servers shall be capable of load-sharing the various system operations (including input/output communications and data logging, alarm management, network communications management, security management).

Numbers 4 & 5 seem to be "at odds". Load sharing of communications, when only one NIC is available, can not be done.

The purpose of the second NIC is to handle System Health and Back Logging of data.

- Server 1 grabs data using primary NIC
- Server 1 pushes collected data to Server 2 over secondary NIC

Without the secondary NIC, bandwidth of the primary NIC increases (there is no secondary NIC to share the data transfer bandwidth consumption).

- Server 1 grabs data using primary NIC
- Server 1 pushes collected data to server 2 over the same primary NIC

Which configuration is preferred in this case?

**ANSWER:**

Neither – Item 4 refers to the software while item 5 refers to hardware. Load sharing for both the primary and redundant system shall be as noted.

Sincerely,

Melissa Oualle



# JEFFERSON PARISH DEPARTMENT OF PURCHASING

WWW.JEFFPARISH.NET

JOHN F. YOUNG, JR.  
PARISH PRESIDENT

BRENDA J. CAMPOS  
DIRECTOR

Melissa Ovalle, Buyer II  
Jefferson Parish Purchasing Department

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# JEFFERSON PARISH DEPARTMENT OF PURCHASING

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JOHN F. YOUNG, JR.  
PARISH PRESIDENT

BRENDA J. CAMPOS  
DIRECTOR

January 4, 2016

## ADDENDUM # 3

**Bid No.: 50-00114765**

**Bid Opening Date: January 5, 2016, 2:00 PM**  
**Postponing Date to: January 14, 2016, 2:00 PM**

**For: Vendor to Furnish Material and Equipment and to Provide Factory Start-Up for a Remote Telemetry Unit SCADA Panel and Monitoring System for Jefferson Parish Department of Sewerage, Lift Station with VFDs**

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- **BID OPENING DATE HAS BEEN POSTPONED TO: January 14, 2016, 2:00 PM**
- **CLARIFICATION OF SPECIFICATIONS: Addendum answers bidder questions to clarify specifications.**

**QUESTION:**

Could you please list the RTU and HMI software around which the specs have been written? It would be helpful as we cannot find one which fulfills all the points listed.

**ANSWER:**

The specified system should interface with the Flygt MultiSmart RTU and SmartRun VFD and provide the functionality as specified.

**QUESTION:**

Could you please elaborate on the existing Cloud based System in place i.e. name of the software, cloud backup service provider and polling method.

**ANSWER:**

The existing cloud based monitoring & control system is communicates with the Flygt MultiSmart RTU. This provides reliable control as well as monitoring of the pump stations connected. The RTU communicates via MODBUS to connected devices downstream of the RTU where applicable.

**QUESTION:**

What does "Users set up a security on the web interface for alarm management" mean.

**QUESTION:**

The Specs mentions that the alarm via text and voice needs to go through a security procedure before the concerned person could access it. Could you please elaborate on that?

**ANSWER: (for two questions above)**

The system provides 256 bit encrypted data over private cellular networks and VPNs using secure DNP3.0 protocol. In the event of an alarm, the system contacts the recipient(s) with a unique code that must be used in the acknowledgement of the alarm. Each user has their own unique identifier and password / PIN.

Updated: January 4, 2016



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JOHN F. YOUNG, JR.  
PARISH PRESIDENT

## JEFFERSON PARISH DEPARTMENT OF PURCHASING

BRENDA J. CAMPOS  
DIRECTOR

Sincerely,

*Melissa Ovalle*

Melissa Ovalle, Buyer II  
Jefferson Parish Purchasing Department

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# JEFFERSON PARISH

Department of Purchasing

**Michael S. Yenni**  
Parish President

**Brenda J. Campos**  
Director

January 6, 2016

**ADDENDUM # 4**

**Bid No.: 50-00114765**

**Bid Opening Date: January 14, 2016, 2:00 PM**

**For: Vendor to Furnish Material and Equipment and to Provide Factory Start-Up for a Remote Telemetry Unit SCADA Panel and Monitoring System for Jefferson Parish Department of Sewerage, Lift Station with VFDs**

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➤ **CLARIFICATION OF SPECIFICATIONS:  
Addendum answers questions to clarify specifications.**

**QUESTION:**

I totally understand the RTU has to interface with the existing Flygt MultiSmart RTU and SmartRun VFD. I would appreciate if you could tell me the "Name of the RTU and SCADA Software" around which the specs has been written.

**ANSWER:**

A customized HMI SCADA package such as Wonderware, Intellution, VT SCADA should be capable of providing the functionality required by the specifications

**QUESTION:**

What is the "Name" of the Existing Cloud Based System i.e. which software is being used currently for cloud based monitoring?

**ANSWER:**

We have no cloud based system at this time

Sincerely,

***Melissa Ovalle***

---

Melissa Ovalle, Buyer II  
Jefferson Parish Purchasing Department



# JEFFERSON PARISH

Department of Purchasing

**Michael S. Yenni**  
Parish President

**Brenda J. Campos**  
Director

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**CAD Control Systems**

## INDUSTRIAL DIVISION

United States - Singapore - Dubai

+1(337) 369 - 3737

[www.cadoil.com](http://www.cadoil.com)



**CAD CONTROL SYSTEMS  
CORPORATE HEADQUARTERS**

CAD Control Systems provides equipment to the world's leading drilling contractors and our global reach extends to over 30 countries world-wide. We also offer manufacturing services for equipment your company has designed. From design to delivery, CAD Control Systems can meet all of your control system needs.

CAD CONTROL SYSTEMS has an unsurpassed commitment to providing our customers the highest quality equipment in the industry. Our quality management system ensures that every engineered product meets industry standards and exceeds our customers expectations.



CAD Control Systems dedication to quality extends throughout the organization and every facet of operations. Our certifications include:

- › **PRESAFE PRODUCTION QUALITY ASSURANCE NOTIFICATION**  
 PRODUCTION QUALITY ASSURANCE NOTIFICATION  
 EQUIPMENT OR PROTECTED SYSTEM INTENDED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES DIRECTIVE 94/9/EC
- › **AMERICAN PETROLEUM INSTITUTE (API) QUALITY REGISTRAR**  
 ISO 9001:2008 - QUALITY MANAGEMENT SYSTEM INTERNATIONAL STANDARD
- › **AMERICAN PETROLEUM INSTITUTE (API) QUALITY REGISTRAR**  
 API SPECIFICATION Q1 - QUALITY MANAGEMENT SYSTEM STANDARD
- › **AMERICAN PETROLEUM INSTITUTE (API)**  
 CERTIFICATE OF AUTHORITY TO USE THE OFFICIAL API MONOGRAM

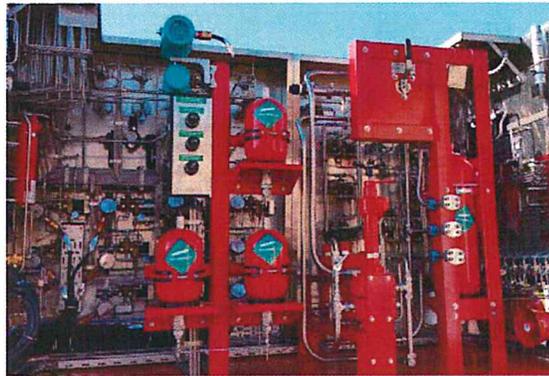
**APPROVED SYSTEMS INCLUDE:**

- › API MONOGRAM
- › ABS - CDS
- › CE MARKED WITH ATEX/IECEx

Established in 1983, CAD Control Systems has long been recognized as a leader in design and manufacture of PLC based and hydraulic control systems for the petroleum and natural gas industry. While headquartered in Broussard, Louisiana, CAD has offices located in Houston, Singapore and Dubai (UAE). To date, CAD equipment has been extensively supplied throughout North and South America, Europe, the Middle East and Far East. Each piece of CAD Control Systems equipment is designed by our in house engineering staff and manufactured at our 35,000 square foot production facility.

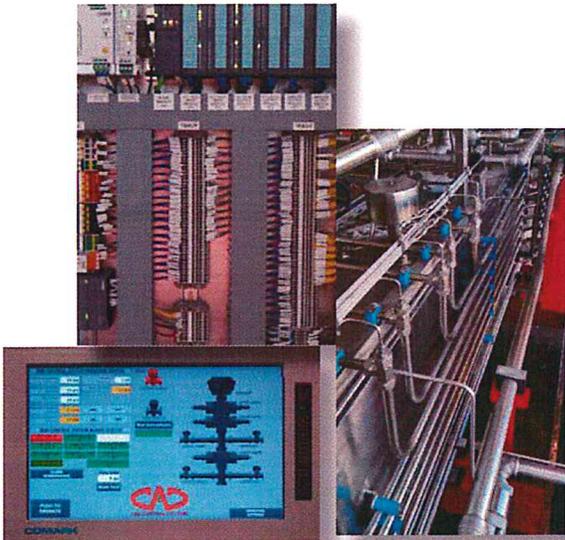
What CAD can do for you...

- Hydraulic Power Systems
- Pneumatic and Electric Test Systems
- Remote Operator Control Panels
- Remote Operator HMI
- Fluid Filtration Systems
- Fluid Mixing Systems
- Pneumatic Controls
- PLC Based Controls
- Data Acquisition Systems
- Custom Manufactured Equipment
- Installation & Commissioning
- On-site or In-House Training



CAD Control Systems doesn't just stop at manufacturing quality equipment. We back it up with installation and commissioning by qualified technicians worldwide and with comprehensive training accomplished at CAD Control Systems headquarters or at the customer's location. We are proud to have a service department that is available 24/7, 365 days a year. Whatever your controls and equipment needs may be, CAD Control Systems can deliver and exceed your expectations.

Please contact us for more information or to schedule a tour of the facility.

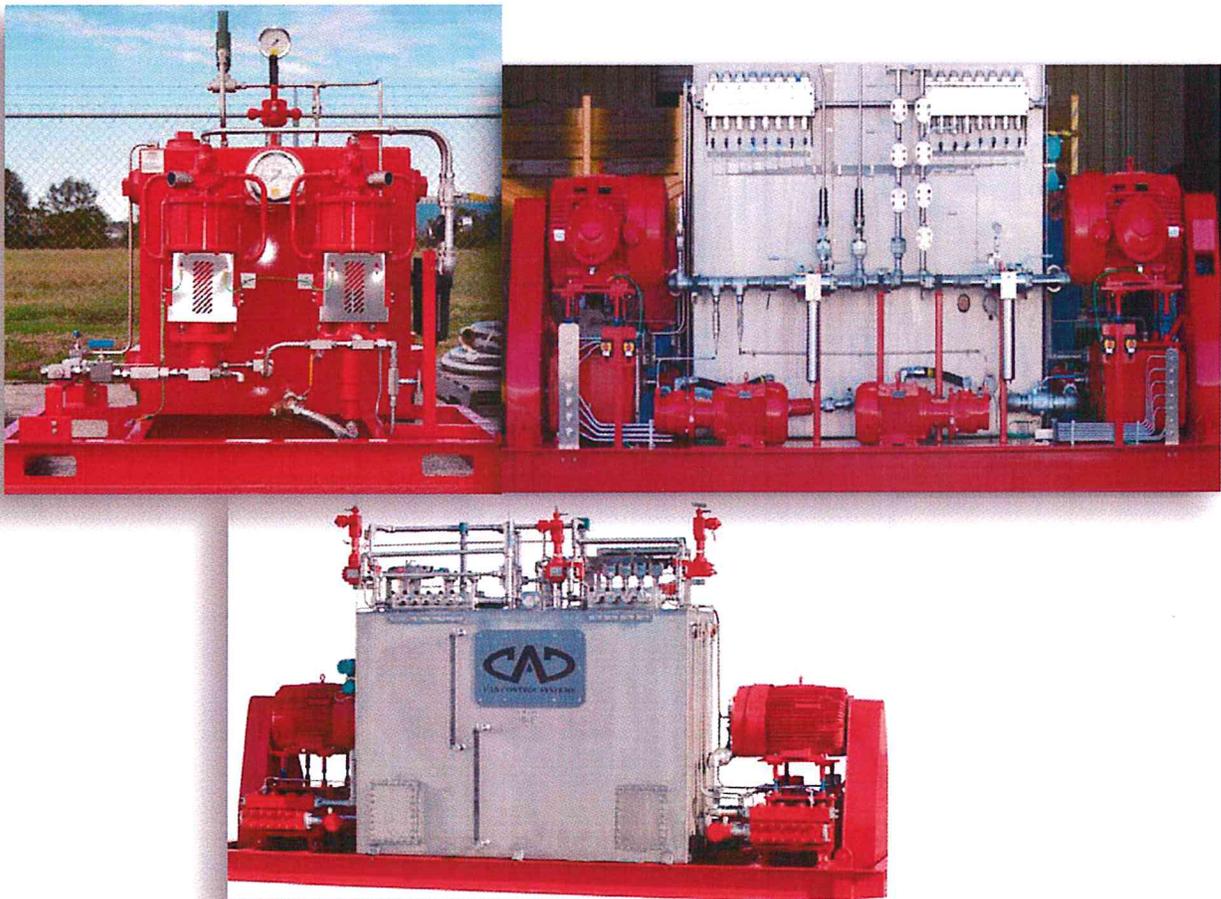


CAD Control Systems  
1017 Freeman Rd  
Broussard, LA 70518

Phone: 337.369.3737  
Email: [sales@cadoil.com](mailto:sales@cadoil.com)

# HPU (HYDRAULIC POWER UNITS) ELECTRICAL, PNEUMATIC & DIESEL

CAD Control Systems has a wide range of standard HPU units and is able to quote all of your custom needs. CAD has the capability to design, customize and build a variety of HPU's to meet the needs of our customers including electric motor driven units, multiple circuit power units, alternative fuel power units and stand-alone diesel pump packages for remote applications where utility power is not available.



## FEATURES:

- Versatile environments (Including offshore & remote desert sites)
- Configured Diesel Control Systems to start/stop the pump off a series of level and/or pressure switches
- Reduced downtime to protect engines using diesel engine controllers sending diagnostics messages
- Ease of transportation via oversized trailers with power units to transport additional hoses and tools

# HIGH PRESSURE TEST SYSTEMS

CAD Control Systems provides the best possible solutions to meet your industry specific needs when it comes to testing equipment. Years of design and engineering experience in this field gives CAD the competitive advantage you can trust.

We manufacture Test Stands for:

- Compressors
- Pressure & burst
- Positive displacement engines & pumps
- Dynamic testing cylinders (Hydraulic & Electric)
- Cylinders
- Tube Testing
- Bunker style safe BOP Testing System

These Test Stands may also include:

- Multiple Data Acquisition Methods
- Freestanding/Skid/Trailer Mounted w/easy access controls and integrated reservoir tanks

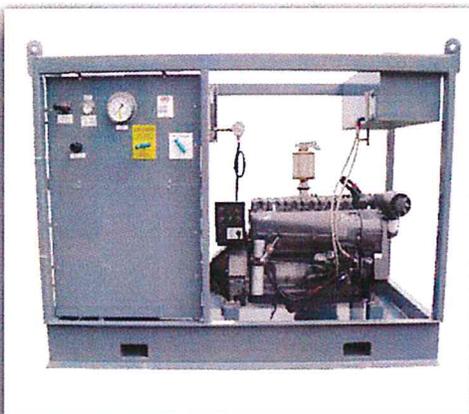


## ***Electric Test Units***

- Powerful, durable and compact
- Reduced test times (up to 80% compared to pneumatic test systems)
- Greater investment returns in the long run

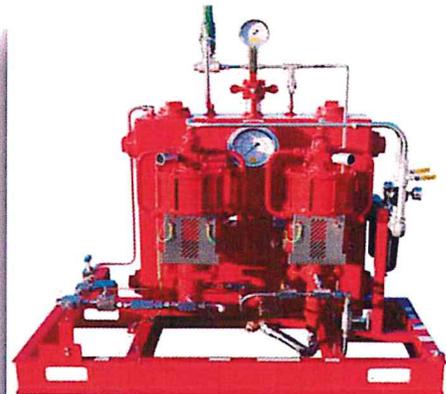
## ***Pneumatic Test Units***

- Reliable and mobile
- Economical solution for hydrostatic testing requirements



## ***Diesel Test Units***

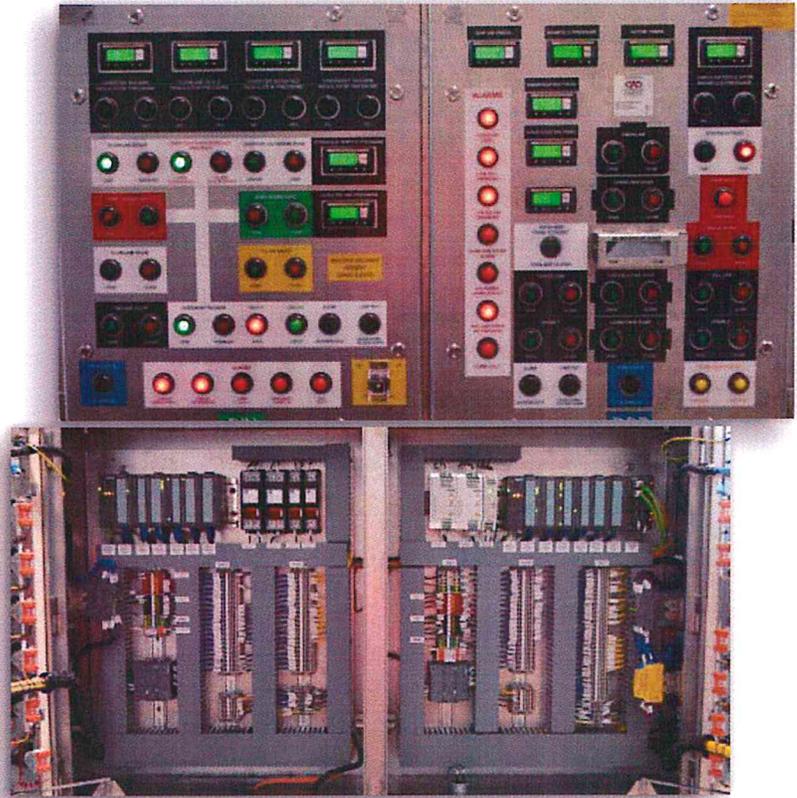
- Dependable and flexible
- Perfect solution when alternative power supply is not available



## REMOTE OPERATOR CONTROL PANELS

### PLC Based Control Panel

When the situation demands immediate action, CAD's line of remote operations panels provide the flexibility and proven reliability to operate your control system, safely and from designated locations. We offer pneumatic operated, PLC based, and HMI touchscreen remote operations panels designed to meet your operating requirements. Each type comes standard with two handed operation to minimize the possibility of accidental operation of the control system, which significantly increases safety.



Our PLC based remote operations panels provide a clean, user friendly layout that reflects the operators unique stack configuration. They also afford users the same ease of use and two handed operation safety feature as our HMI touchscreen remote panels. Illuminated push button control gives the user visual position indication for each stack function with digital read out pressure meters that provide real time system pressure readings.

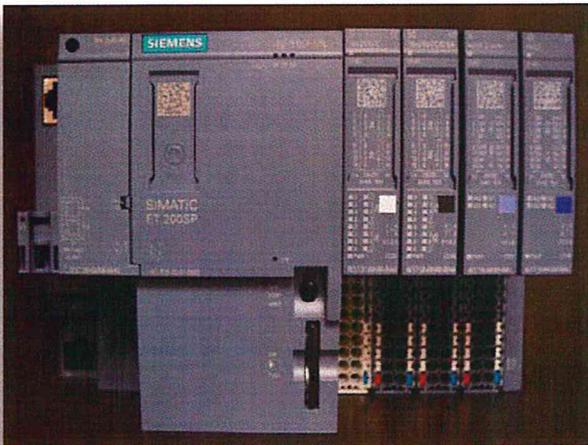
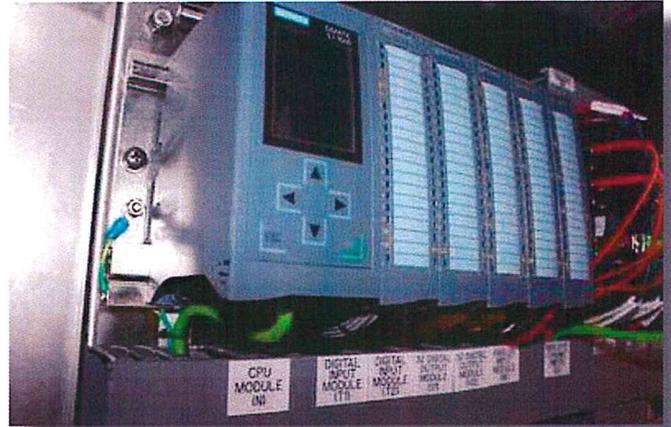
PLC based remote operations panels are designed and manufactured in accordance with your operational requirements and specifications and can be rated for use in Class 1 Div 1 or Zone 1 hazardous environments.

## REMOTE OPERATOR CONTROL PANELS

### *CAD Control Systems Continues Improvement...*

CAD Controls now offers the latest in PLC Technology with the new Siemens S7-1500 series PLCs.

In 2012 and 2013, CAD Control Systems had the opportunity to partner with Siemens in BETA testing their latest PLC offerings, the S7-1500 series PLCs. Once testing was completed, CAD was one of the first to utilize the technology in Automation Control Systems.



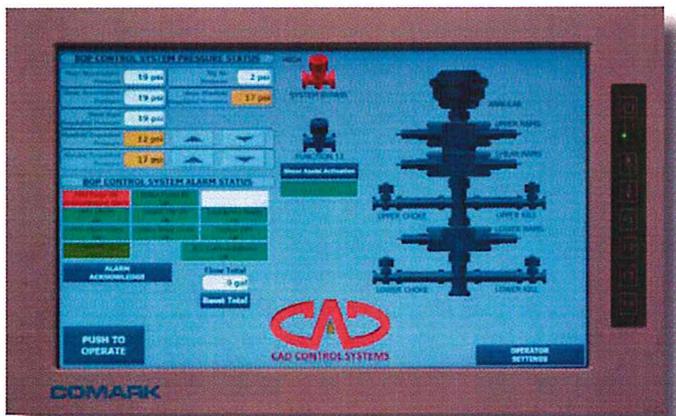
The S7-1500 series PLC offers the following over the S7-300 series

- Faster processing of program for seamless controls
- More memory storage for larger and more complex automation systems
- More detailed diagnostics, making troubleshooting faster and easier
- Hot swappable I/O cards to minimize down time
- Triple rated for Hazardous Areas (UL, ATEX, IECEx) enabling use in almost any location
- Smaller form factor to maximize real estate

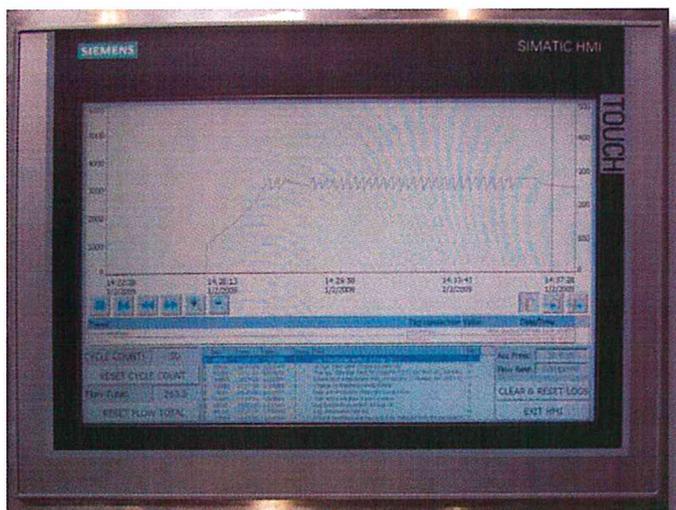
# REMOTE OPERATOR HMI

## Touchscreen Technology

HMI Touchscreen Remote Operations Panels are the next generation of remote operations capabilities. CAD's touchscreen remote panels offer a significantly smaller foot print than conventional remote panels. Because of the HMI's smaller, space efficient design, the operator has considerably more installation options over traditional remote panels. With a user friendly, customizable interface, our touchscreen remote panels can be easily configured to meet your operational requirements. When your stack configuration changes, the HMI can easily be modified to reflect those changes.



The HMI also provides event logging capabilities. It records, time stamps and archives each system event which can easily be downloaded or viewed.



The HMI Touchscreen Remote is yet another technological advancement by CAD Control Systems affording our customers a cost effective solution for enhanced operational capabilities. No one gives more options and user friendly technology than CAD Control Systems.



## FLUID FILTRATION SYSTEMS

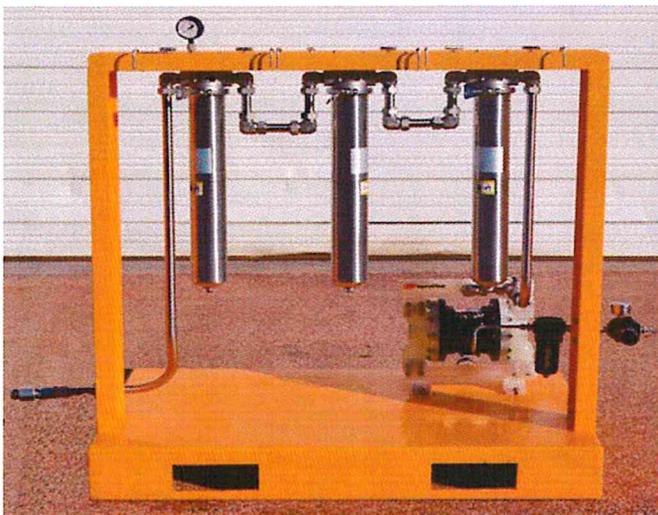
Fluid contamination is one of the major causes of failure and reduction in the operational life of fluid power systems. CAD Control Systems offers flexible, scalable, and cost effective fluid filtration solutions to meet a variety of fluid filtration requirements. We also offer self contained filtration systems, for high and low pressure applications, designed to meet your exact specifications for a variety of fluid types. We can also add filtration systems to existing fluid management equipment. A quality fluid filtration/management system is critical in decreasing the expense associated with maintenance, downtime, and/or failure associated with contaminated fluid, as well as, effectively addressing environmental concerns.

CAD Control Systems filtration systems can be used in a multitude of industries including:

- Agriculture
- Construction
- Marine Applications
- Petroleum and Natural Gas  
(Drilling, Completion, Production)
- Mining
- Paper and Steel Mills



*Fluid sample before filtration (NAS 8)*



*Fluid sample after filtration (NAS 4)*

Maximize productivity and minimize cost. Let CAD Control Systems design and manufacture a fluid filtration solution to meet your needs!



# FLUID MIXING SYSTEMS

In order to meet your fluid management needs, CAD offers a line of versatile and customizable fluid mixing systems designed by our in house engineering team. We work closely with our customers to design systems taking into consideration their following unique requirements: capacity and pressure, remote capabilities (manual, PLC, HMI), footprint, alarm requirements, data acquisition and the overall operating environment (hazardous/nonhazardous). They are manufactured in accordance with ISO and API quality management systems.

## CAD offers two types of systems:

### 1. Hydraulic Power Systems (HPU)

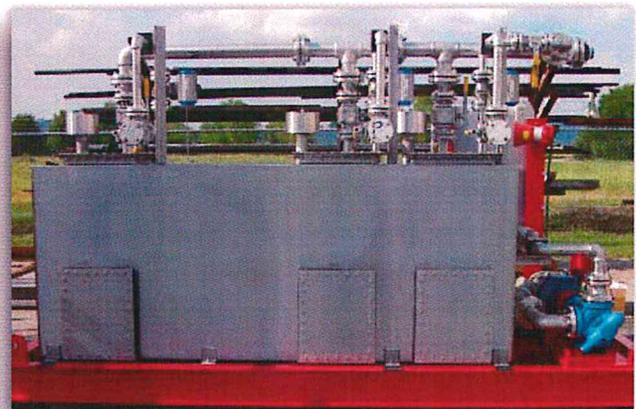
(with an integrated reservoir mixing capabilities)

- Continuous mixing/circulation of fluids stored in reservoir
- Ability to create/store hydraulic fluid pressure up to 7500 PSI
- Can be safely operated manually and remotely



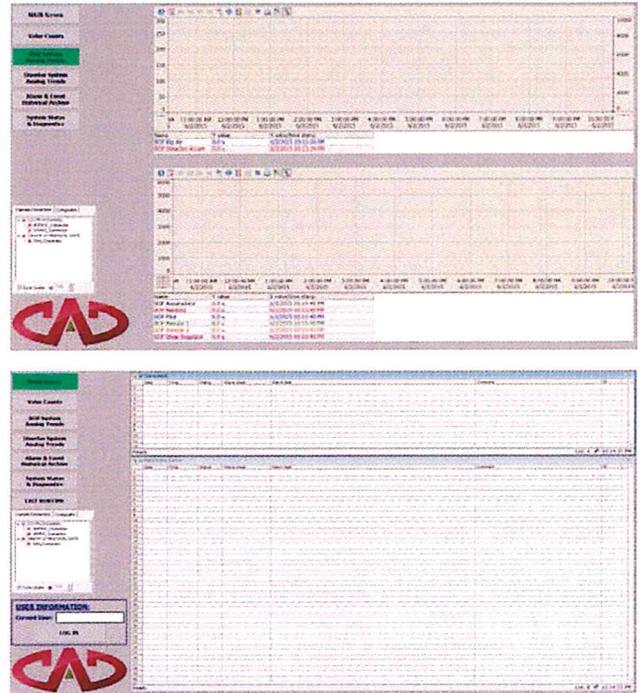
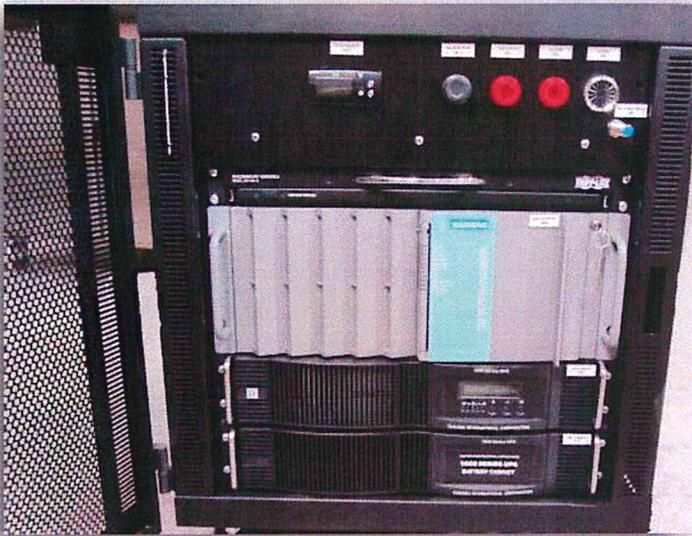
### 2. Fluid Reservoir Mixing Systems

- Use in hazardous and non-hazardous environments
- Single or multiple tank designs
- Can be safely operated manually and remotely for a variety of fluid types



# DATA ACQUISITION SYSTEMS

CAD provides several types of Data Acquisition Systems to capture any required information that may improve safety and reliability.



## FEATURES:

- User friendly
- Customized view of data
- Monitor and record all data, including any and all changes
- Data logged and displayed on a central server or remotely
- Ease of analysis through use of data stamped logs
- Customized data analysis according to system operator needs
- Ease of data sharing in various file types (ie. .csv for Excel or .pdf for print)
- Redundant data storage with RAID 3 hard drive configurations
- Redundant data servers with constant synchronization between servers
- Optional rack mount or desktop server

Whatever your data logging needs, CAD Control Systems has a solution custom built for you.

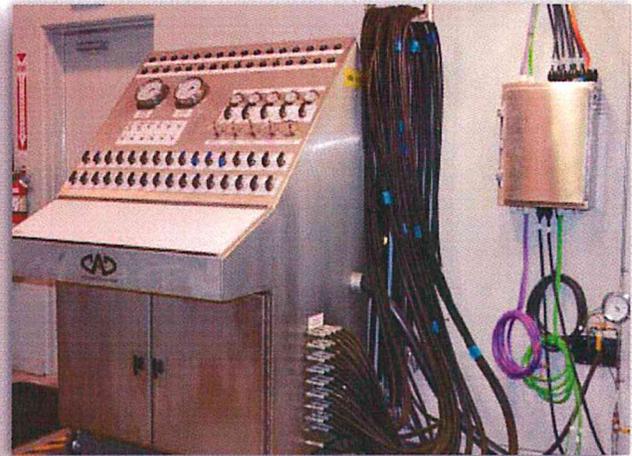
# CUSTOM ENGINEERED EQUIPMENT

Our team of qualified engineers, who have decades of combined experience, has assembled an impressive portfolio of success stories over the years involving some revolutionary projects. CAD Control Systems offers expertise in engineered systems such as Hydraulic Systems, Power Units, PC and PLC Control Systems, Control Panels and SCADA Systems. CAD can also develop a large quantity of OEM solutions or a single valve as a component in a system.

## FEATURES:

Through extensive consultation with our Engineering Team, CAD Control Systems can help with the following:

- Obtaining a conforming tender from a reputable source
- Providing expert advice to maximize your hydraulic system
- Providing accurately defined project scopes
- Appropriate solutions for your companies needs



## Past Projects Include:

- Turnkey Hydraulic Projects
- Hydraulic Circuit Design
- Hydraulic Power Unit Design
- Hydraulic System Upgrades & Refurbishments
- Full Repair Facilities
- Training
- Custom Hydraulic Power Units
- Custom Motion Control Systems
- Electric Sensors
- Hydraulic Drives
- System Design & Components

# FABRICATION

CAD Control Systems has a large team of experienced welders offering fabrication services for high capacity production using stainless steel, mild steel and specialty steel components. CAD is committed to being globally competitive regardless of the shape or final destination of your fabrication needs and has been progressively building and expanding our fabrication services for over 20 years.

## FEATURES:

- **Stainless Steel Shop**
  - Lift Capacity (5 Tons)
  - Underhook Height (12.5 ft)
  - 2 - 1/2 ton jib cranes
- **Carbon Steel Shop**
  - Lift Capacity (20 tons)
  - Underhook Height (19 ft)
  - 5 - 1/2 ton jib cranes
- Qualified to perform vast weld procedures to ASME Section VIII & AWS D1.1



**Our experience in metal fabrication includes production of:**

### METAL COMPONENTS

- Trailer frames and skids
- Shell plates
- Elliptical and oval beveled holes
- Heat Exchangers
- Frames and Skids
- Enclosures for generators & turbines

### INDUSTRIAL APPLICATIONS

- Base frames for motors
- Conveyor Systems
- Catwalks
- Water Chillers
- Enclosures

### OIL & GAS

- Pump Skids
- Frac Tanks
- Specialty Trailers
- Pump Jacks
- Indirect and logistical racking & equipment



## WORLDWIDE SERVICE SUPPORT

CAD Control Systems started as a Field Service company in 1983 providing 24 hour service performing on location repairs of BOP control systems (land and offshore). Customer service and satisfaction has always been the major foundation for CAD Control Systems and it continues to be the driving force in our companies approach to business today. Over the life of the company, field services offered to our customers have grown from immediate repairs to complete system installations and commissioning of new capital equipment as well as performing upgrades and modifications to existing equipment. CAD Control Systems also offers training to it's customers employees. With continued growth, CAD Control Systems has diversified into other industrial markets. CAD Control Systems offers high quality and affordable infield solutions to a wide range of industries such as HVAC, municipal, chemical processing, automotive, power generation, mill applications and assembly line applications. CAD Control Systems has a group of highly trained field service technicians holding pass ports which have received the most up-to-date training and certifications allowing them to respond to the customer's needs anywhere in the world.

<b>SERVICES INCLUDE:</b>	
Equipment Troubleshooting & Repair	Training
Instrumentation Calibration	Field System Re-Furbishment
System Inspection	Equipment Maintenance
Site & Equipment Evaluations	System Installation/Commissioning
Single Unit or Fleet Evaluations	24 Hour Replacement Parts

**CAD CONTROL SYSTEMS**

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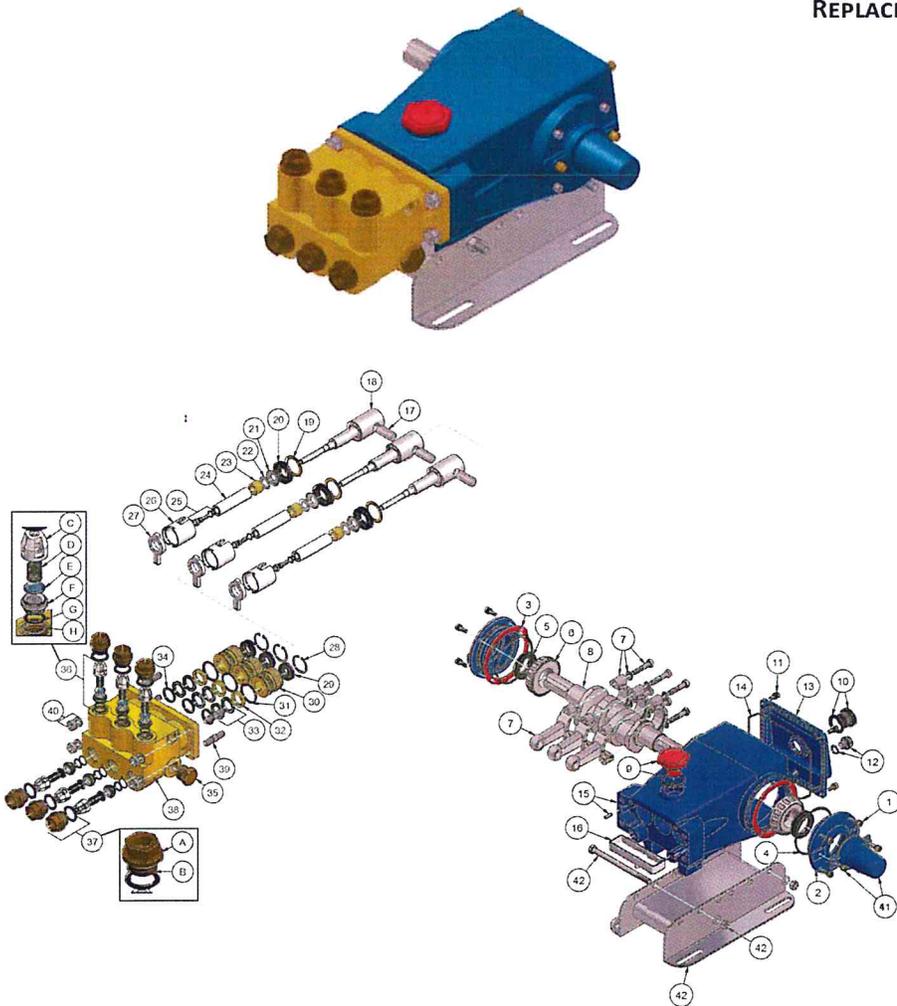


## AFTERMARKET SUPPORT

CAD Control Systems offers an extensive selection of the highest quality new and re-manufactured OEM replacement components available. We deal directly with all of the major component manufacturers, keeping our prices extremely competitive with quicker delivery times. We can supply replacement parts for a single facility or a complete rig fleet. We also have hard to find components readily available and if we don't have it...we can get it.

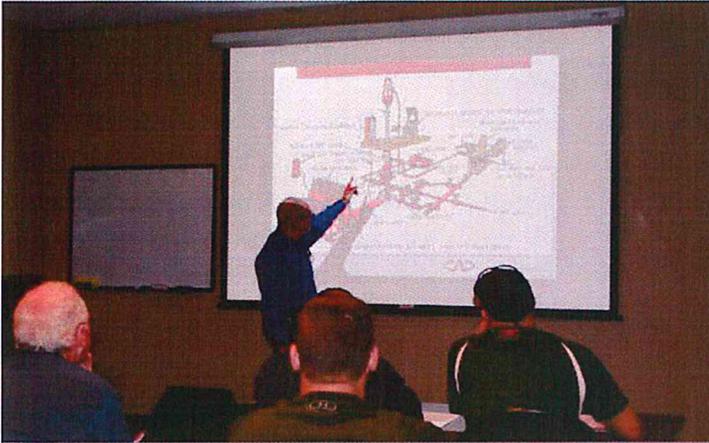
### REPLACEMENT PARTS INCLUDE:

- Accumulators
- Bladders and Accessories
- Air and Electric Pressure Switches
- High Pressure Ball Valves
- Air Supply Components
- Chart Recorders and Accessories
- Check Valves
- Electronic Components
- Gauges
- Needle Valves and Fittings
- Pneumatic Actuated Ball Valves
- Relief Valves
- Remote Hoses and Accessories
- and much more



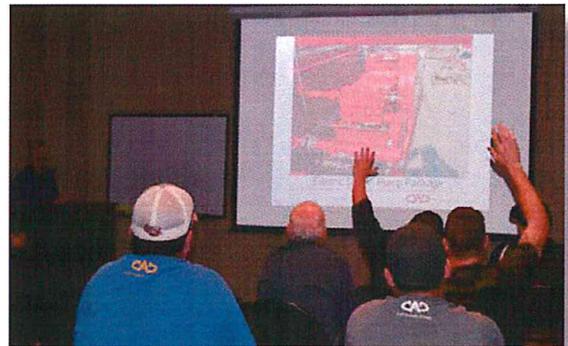
We have made getting a quote for replacement parts even easier. You can now browse through our parts catalog on our website, [www.cadoil.com](http://www.cadoil.com). Simply find your component, select the quantities, and submit your request directly to our inside sales staff. Please visit [www.cadoil.com](http://www.cadoil.com) for more info or to request a quote or call our sales department directly at 337.369.3737.

## ON-SITE OR IN-HOUSE TRAINING



With over 30 years of experience in the industry, CAD Control Systems is continually developing "customer training" programs. These programs are designed to help our customers save money and improve sustainability of their equipment and systems and have already saved our customers tens of thousands of dollars on a case by case basis.

The training programs are developed around industry standards, sound engineering practices, as well as experience from past case histories and lessons learned. Our classes are offered in-house and offered to engineers, operations and maintenance personnel. Held in a classroom setting with a lesson plan customized to your equipment, the classes are informative and interactive, offering a "hands on" approach to learning and can use actual specified equipment and personnel in charge. We will work with you on the basics and move toward advanced techniques to help identify and solve severe and reoccurring problems. We then follow up with on-site training and the creation of an operations manual. These materials will give your staff the tools they need to maintain your equipment properly and help them identify when your equipment is not functioning properly before it turns into a major repair.



For more information or to schedule a training class,  
please contact:

337.369.3737 or 337.369.3724 (Fax)

[jbullock@cadoil.com](mailto:jbullock@cadoil.com)

 CAD CONTROL SYSTEMS



## CONTACT US

While headquartered in Broussard, Louisiana, we have service centers and authorized agents ready to serve you throughout the world. Please see the list below to contact the CAD representative nearest you.

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DUBAI - UNITED ARAB EMIRATES  
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