

**CITY OF FERNDALE  
WASTEWATER TREATMENT PLANT  
PLC UPGRADE**

**ADDENDUM NO. 1 (10 pages total)  
Issue Date: August 18, 2014**

General: Recitations of each and every section of the bid documents impacted by this addendum are not given. The described changes impact all relevant portions of the bid documents whether specifically cited below or not.

***PRE-BID MEETING ATTENDEES:***

The list of attendees at the Pre-Bid Meeting is attached.

***PRE-BID MEETING AGENDA:***

The Pre-Bid Agenda is attached.

**GENERAL CONTRACT CLARIFICATIONS:**

1. The preferred hours of work are to be between 7:00am and 4:00pm Monday through Friday, excluding holidays. The Contractor is to plan accordingly. However, during panel switch-over work, Contractor is to work closely with City Staff to plan and minimize equipment control/alarm downtime as much as possible.
2. Remove and replace existing **SCOPE OF WORK AND DESCRIPTION OF BID ITEMS** with attached (4 pages total). Note that contract now has 8 Base Bid Items and 6 Alternate Bid Items. Option 1 = Bid Items 1 through 8. Option 2 = Bid items 8 through 14. Owner to select which bid items are desired, after bid opening. Adjust language in contract documents to match.
3. Remove and replace existing **PROPOSAL** with attached (3 pages total).
4. Adjust contract completion deadline to **February 27, 2015** (not December 31, 2014).

**ATTACHMENTS INCLUDED ON FOLLOWING PAGES:**

- **UPDATED SCOPE OF WORK AND DESCRIPTION OF BID ITEMS (4 pages)**
- **PROPOSAL WITH BID ITEM SHEET (3 pages)**
- **PRE-BID SIGN-IN SHEET (1 page)**
- **PRE-BID AGENDA (1 page)**

## **SCOPE OF WORK AND DESCRIPTION OF BID ITEMS**

Payment for the various items of the Proposal, as further specified herein, shall include all compensation to be received by the CONTRACTOR for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals appurtenant to the items of WORK being described, as necessary to complete the various items of the WORK all in accordance with the requirements of the Contract Documents, including all appurtenances thereto, and including all costs of permits and cost of compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA).

No separate payment will be made for any item that is not specifically set forth in the Proposal, and all costs therefor shall be included in the prices named in the Proposal for the various appurtenant items of WORK.

### **BASE BID ITEMS**

A summary of the work provided by the Contractor at each panel location is listed below.

Note: Base Bid assumes that additional UL field inspection of each panel will not be required. If field UL inspection is deemed necessary by the L&I electrical inspector, the Contractor shall provide these inspection and labeling services by an independent testing agency. Costs for these field inspections and any additional modifications to repair existing deficiencies to meet UL requirements shall be addressed via Change Order.

#### 1. Panel ID: RCP-1, Lump Sum (LS)

- a) Location: Electrical/Generator room.
- b) Demolition of existing TI/Siemens 545 PLC system.
- c) New Allen Bradley ControlLogix L72 series processor.
- d) New Allen Bradley ControlLogix 10 slot rack, power supply, Ethernet module.
- e) I/O cards as required to reconnect all existing points, plus 20% spare capacity.
- f) Panel wiring modifications, as required.
- g) Replace communication cabling from RCP-1 to RCP-3 and LCP-600 with fiber optic cable for Ethernet communication.

See bid item #8 for Programming services.

#### 2. Panel ID: RCP-2, Lump Sum (LS)

- a) Location: West Electrical Building
- b) Demolition of existing TI/Siemens 545 PLC system.
- c) New Allen Bradley CompactLogix L33ER series processor and power supply.
- d) I/O cards as required to reconnect all existing points, plus 20% spare capacity.
- e) Panel wiring modifications, as required.

See bid item #8 for Programming services.

3. Panel ID: RCP-3, Lump Sum (LS)
  - a) Location: Chemical Building
  - b) Demolition of existing TI/Siemens RBC remote base PLC system.
  - c) New Allen Bradley CompactLogix L33ER series processor and power supply.
  - d) I/O cards as required to reconnect all existing points, plus 20% spare capacity.
  - e) Panel wiring modifications, as required.

See bid item #8 for Programming services.

4. Panel ID: MCP, Lump Sum (LS)
  - a) Location: Lab Building
  - b) Demolition of existing TI/Siemens 545 PLC system.
  - c) New Allen Bradley CompactLogix L33ER series processor and power supply.
  - d) I/O cards as required to reconnect all existing points, plus 20% spare capacity.
  - e) Panel wiring modifications, as required.

See bid item #8 for Programming services.

5. Panel ID: LCP-600/700, Lump Sum (LS)
  - a) Location: Effluent Pump Station
  - b) Demolition of existing TI/Siemens RBC remote base PLC system.
  - c) New Allen Bradley CompactLogix L33ER series processor and power supply.
  - d) I/O cards as required to reconnect all existing points, plus 20% spare capacity.
  - e) Panel wiring modifications, as required.

See bid item #8 for Programming services.

6. Panel ID: LCP-001, Lump Sum (LS)
  - a) Location: Headworks Panel
  - b) Demolition of existing TI/Siemens 545 PLC system.
  - c) New Allen Bradley CompactLogix L33ER series processor and power supply.
  - d) I/O cards as required to reconnect all existing points, plus 20% spare capacity.
  - e) Panel wiring modifications, as required.

See bid item #8 for Programming services.

7. Panel ID: Power Monitors, Lump Sum (LS)
  - a) Location: WTP, ATS-1, ATS-2, ATS-3
  - b) Demolition of existing power monitors.
  - c) New Allen Bradley Power Monitor 1000 at each of four locations.
  - d) Power supply, Ethernet cabling to each location.
  - e) Panel wiring modifications, as required.

See bid item #8 for Programming services.

8. Programming for all Base Bid and Misc. Items, price based on Force Account Total Sum (FA)
  - A. Measurement for payment for Programming by L2 Systems, LLC (phone: 425-258-2402) will be based on the actual force account total of finished Programming work for Base Bid Items for startup and testing of the complete system (including all PLC, and SCADA System programming) as directed by City Staff and per Contract Documents. In addition, services to include all work needed for control system network mapping:
    1. Work to include network drawings and spreadsheets detailing locations, IP addresses, communications media, and all other network equipment for the complete WWTP and WTP control system network. In addition, final product is to include configuring a webservice for logging into the network switches and viewing the network switch port statistics. Include a detailed map to help City view and interpret the Network switch webservice data.
    2. Also, provide network monitoring software, licensing, installation and configuration (such as SolarWinds, or equivalent) that will send the City notifications when control system network equipment or devices are malfunctioning or not connected. Software will actively monitor the routers, PLC's, Network Switches, and SCADA Computers and will send email notification when alarm conditions exist.

Force account work to be per WSDOT Standard Specifications, Section 1-09.6.

- B. Payment for Programming will be made at the total sum of the actual force account, said payment will constitute full compensation for all WORK which shall be in accordance with the applicable specifications, including 2014 WSDOT requirements.

## **ALTERNATE BID ITEMS**

Alternate bid items shall include all Base Bid work, plus all additional materials and work to completely replace the entire backpanel assembly at each PLC panel, at all six (6) locations.

New backpanel assemblies shall include backpanel, wireway, terminals, power supplies, relays, PLC equipment, communications equipment, level controllers, and all other required equipment to maintain existing system functionality. All new backpanel assemblies shall include UL label.

Existing equipment in good working condition, such as level controllers and communications equipment, may be re-used if they are installed to meet UL labeling requirements.

A summary of the panel upgrade work provided by the Contractor at each panel location includes:

9. Panel ID: RCP-1 (ALTERNATE BID ITEM), Lump Sum (LS)

Location: Electrical/Generator Room.  
Complete replacement of Backpanel Assembly

10. Panel ID: RCP-2 (ALTERNATE BID ITEM), Lump Sum (LS)

Location: West Electrical Building  
Complete replacement of Backpanel Assembly

11. Panel ID: RCP-3 (ALTERNATE BID ITEM), Lump Sum (LS)

Location: Chemical Building  
Complete replacement of Backpanel Assembly

12. Panel ID: MCP (ALTERNATE BID ITEM), Lump Sum (LS)

Location: Lab Building  
Complete replacement of Backpanel Assembly

13. Panel ID: LCP-600/700 (ALTERNATE BID ITEM), Lump Sum (LS)

Location: Effluent Pump Station  
Complete replacement of Backpanel Assembly

14. Panel ID: LCP-001 (ALTERNATE BID ITEM), Lump Sum (LS)

Location: Headworks Panel  
Complete replacement of Backpanel Assembly

# PROPOSAL

Name of Bidder: \_\_\_\_\_

Submittal of this Bid proposal warrants that the undersigned has:

1. Examined the site, plans and specifications, and laws and ordinances governing the work;
2. Agreed to perform the work complete and provide a facility in full operation, including all labor, materials and equipment in accordance with the terms and provisions of the Contract Documents and for the prices tendered;
3. Agreed to perform the work in accordance with the time of completion as set forth in Supplemental Conditions, after which specified liquidated damages will be assessed.
4. Not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action restraining free competitive bidding for the project.

## BID SCHEDULE

The award of Bid Schedule shall be based on the Owner Selected Bid Items.

**BID ITEMS:**

BASE BID ITEMS

ITEM	QTY/UNIT	UNIT PRICE	AMOUNT
1. Panel ID: RCP-1	1 LS	\$ _____	\$ _____
2. Panel ID: RCP-2	1 LS	\$ _____	\$ _____
3. Panel ID: RCP-3	1 LS	\$ _____	\$ _____
4. Panel ID: MCP	1 LS	\$ _____	\$ _____
5. Panel ID: LCP-600/700	1 LS	\$ _____	\$ _____
6. Panel ID: LCP-001	1 LS	\$ _____	\$ _____
7. Panel ID: Power Monitors	1 LS	\$ _____	\$ _____
8. Programming for all Base Bid & Misc. Items (Force Account)			\$ <u>81,500</u>

**OPTION 1 – SUBTOTAL** (Bid Items 1-8) \$ \_\_\_\_\_  
**SALES TAX (8.7%)** (Bid Items 1-8) \$ \_\_\_\_\_  
**TOTAL** (Bid Items 1-8) \$ \_\_\_\_\_

ALTERNATE BID ITEMS

ITEM	QTY/UNIT	UNIT PRICE	AMOUNT
9. Panel ID: RCP-1 (BACKPANEL REPLACEMENT)	1 LS	\$ _____	\$ _____
10. Panel ID: RCP-2 (BACKPANEL REPLACEMENT)	1 LS	\$ _____	\$ _____
11. Panel ID: RCP-3 (BACKPANEL REPLACEMENT)	1 LS	\$ _____	\$ _____
12. Panel ID: MCP (BACKPANEL REPLACEMENT)	1 LS	\$ _____	\$ _____
13. Panel ID: LCP-600/700 (BACKPANEL REPLACEMENT)	1 LS	\$ _____	\$ _____
14. Panel ID: LCP-001 (BACKPANEL REPLACEMENT)	1 LS	\$ _____	\$ _____

**OPTION 2 – SUBTOTAL** (Bid Item 8 plus Bid Items 9-14) \$ \_\_\_\_\_  
**SALES TAX (8.7%)** (Bid Item 8 plus Bid Items 9-14) \$ \_\_\_\_\_  
**TOTAL** (Bid Item 8 plus Bid Items 9-14) \$ \_\_\_\_\_

Contractor: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Date: \_\_\_\_\_

Contractor's State License Number: \_\_\_\_\_

By: \_\_\_\_\_ Title: \_\_\_\_\_  
Signature

Name Printed \_\_\_\_\_

The bidder acknowledges receipt of the following addenda, and agrees to the conditions set forth therein, by initializing the appropriate place:

Addendum No. 1 \_\_\_\_\_ Addendum No. 2 \_\_\_\_\_ Addendum No. 3 \_\_\_\_\_ Addendum No. 4 \_\_\_\_\_





## **PRE-BID MEETING AGENDA**

PROJECT: Ferndale Wastewater Treatment Plant PLC Upgrade  
DATE: August 14, 2014, 2:00 pm

1. Pass Around Sign-In Sheet
2. Notes:
  - a. Bid Date = Thursday, August 21 at 2:00pm
  - b. Bid Documents and Plan Holders List are posted on the Wilson Engineering Website:  
**<http://www.wilsonengineering.com/bidding-documents.aspx>**
3. Project Work Summary:
  - a. This project includes upgrades to the City of Ferndale's Waste Water Treatment Plant (WWTP) Programmable Logic Controller (PLC) based control system.
  - b. The existing PLC system was installed in 1987 and includes Siemens/Texas Instruments 505 and 545 series hardware.
  - c. The project includes replacement of all existing Siemens/TI PLCs including racks, PLC power supplies, processors, communications cards, and Input/Output cards.
  - d. The new PLC hardware shall be based on the ControlLogix and CompactLogix platforms by Allen Bradley, no substitutions permitted. See Section 17010- 2.2 for additional information.
  - e. The Contractor shall provide complete design and selection of all new PLC system components to maintain the existing functionality of the treatment facility and minimize rewiring of I/O cards and field wiring.
  - f. All existing enclosures, doors and door mounted components will be maintained and reconnected for use.
  - g. All PLC and SCADA system programming for the project will be provided by the City's Programmer, and a force account is provided for this work. This work includes all work needed for control system network mapping.
4. Schedule
  - a. 60 working days from date of Notice to Proceed to date of Substantial Completion. Date of completion of all work is Dec. 31, 2014.
  - b. Hours of work: 7AM to 4PM, M-F
5. Questions?