TPC | Telemetry and Process Controls, Inc.

November 14, 2013

Mr. Mike Bouthilet
City of Lake Elmo - Public Works Department
3800 Laverne Avenue
Lake Elmo, MN 55042

Subject: Proposal to upgrade the City of Lake Elmo Water Distribution / Wastewater Collection
SCADA System Radio communication equipment & GUI hardware / software

Dear Mr. Bouthilet,

Thank you for the opportunity to present this proposal to the City of Lake Elmo's Public Works Department. Telemetry and Process Controls, Inc. (TPC) will supply the following equipment and services as part of this proposal:

Ethernet Radio System (ERS) Upgrade @ all (4) existing serial radio locations:

Elevated Water Tower No. 2 CTU*	CPWT2
Well No. 1 / Elevated Water Tower No. 1 RTU**	CPW1
Well No. 2 RTU**	CPW2
Lift Station No.1 RTU**	CPLS1

*CTU – Central Transceiver Unit ** RTU – Remote Transceiver Unit

ERS Upgrade to include:

- (4) CalAmp Viper SC-100 Ethernet radios (one @ each location)
- (2) Fiber/Copper Media converter Ethernet switches; one @ each following location:
  - Public Works SCADA Panel CPPW
  - Elevated Water Tower No.2 Panel CPWT2
- Radio to PLC Ethernet cable @ each radio location
- Installation of the new ERS hardware into the CTU / RTU panels
- Radio configuration
- PLC configuration
- Radio path study for existing and new radio sites.

TPC's Price is: $12,681.00

Graphical User Interface (GUI) Upgrade @ the SCADA System "Master" - Public Works Building

GUI Upgrade to include:

- Desktop PC, HP Compaq Elite 8300 (per attached specification)
- 21.5" Flat panel color L.E.D. back-lit Monitor, HP ProDisplay P221
- Microsoft Office 2010 software
- Wonderware License Upgrade (from 500 to 1000 tag package)
- Uninterruptible power supply
- Factory set-up of new GUI including the installation of the upgraded Wonderware software license & configuration of VPN "LogMeIn" Remote Access software

On-Site technical Services including:
- Hardware / Software delivery to the site
- PC set-up in City designated location
- Communications system configuration and test
- System functional test

TPC's Price is: $7,152.00

Optional GUI Upgrade price deducts:
1. Deduct $1,045 if the City of Lake Elmo provides the Desktop PC, HP Compaq Elite 8300 and the 21.5" Flat panel color L.E.D. back-lit Monitor, HP ProDisplay P221 (per attached specification).
2. Deduct $159 for the Wonderware License Upgrade to only include a new version for operation on the new PC with a Windows 7 Professional operating system without the tag expansion option (The current 500 tag license, is able to accommodate the current system expansion plans of adding two lift stations & one well RTU to the SCADA system. The minimal incremental cost however to go to the 1,000 tag package now seems very worthwhile to us.
3. Deduct $2,824 for the City to continue using their existing SCADA system GUI and not replace the existing GUI hardware or upgrade the Wonderware software. The GUI upgrade would only include a network interface module for the existing PC and TPC's on-site installation, testing and operator instruction in the use of the VPN "LogMeIn" Remote Access software. **We do not recommend this optional deduct** due to the age of the current GUI hardware / software. The existing PC has a Microsoft XP operating system that will no longer be supported by Microsoft after April 2014.

GUI Alarm Notification Software and Modem & associated On-site Services

To include:
- o Alarm Notification Software, WIN-911 PRO-BT providing the following alarm communication options:
  - Telephone voice Messaging
  - E-mail notification
  - Text messaging
  - Paging notification
- o Alarm dialer modem
- o On-site Services to include:
  - PC Installation and configuration of the Alarm Notification software
  - Functional test of the GUI Alarm Notification system

TPC's Price is: $9,474.00

Note: The proposed GUI Alarm Notification Software and Modem will work with either the proposed new GUI PC's MS Windows 7 Professional operating system or your existing PC's MS Windows XP operating system.

Tablet PC
- Apple iPad with Retina Display MD524LL/A (64GB, Wi-Fi + Verizon, Black) NEWEST VERSION
  - o Configured for Wi-Fi HMI Access
  - o NOTE: The SIM cellular communications card is not included. TPC to provide coordination assistance (if desired by the city) with the City's cellular service provider to obtain the appropriate SIM card required.

TPC's Price is: $1,350.00

TPC's price includes:
- Engineering
- 1-Year Warranty
- Factory Check Out
- On-site installation