



CITY of NOVI CITY COUNCIL

Agenda Item G
December 21, 2015

SUBJECT: Approval to award a project to Kennedy Industries for the purchase and installation of Mission M113C Monitoring/Alarm systems at sixteen sanitary lift stations, in the amount of \$47,786.

SUBMITTING DEPARTMENT: Department of Public Services, Water and Sewer Division *ZLC RJA*

CITY MANAGER APPROVAL: *[Signature]*

EXPENDITURE REQUIRED	\$47,786
AMOUNT BUDGETED	\$56,000
LINE ITEM NUMBER	592-592.00-986.002

BACKGROUND INFORMATION:

The City operates and maintains 18 sanitary lift stations, each of which is equipped with monitoring systems that notify system operators in the event a failure occurs at one of the stations. The primary monitoring is provided through the City's SCADA (Supervisory Control and Data Acquisition) system, which is a computer based system that collects data and will provide alarm notifications when necessary. Due to the hazardous nature of the lift stations, each is equipped with a redundant monitoring system as well. However, the redundant system uses phone lines for communications of alarms, and has been unreliable at times. For this reason, the Department of Public Service's Water and Sewer Division has planned to upgrade all of the City's pump stations to a more reliable system. This upgrade was approved in the FY15-16 budget.

The Mission Communications monitoring system has been chosen as the replacement for the redundant systems currently in place. The Mission system uses a more reliable cellular-based communication system, and of the cellular-based systems this one is best suited to meet our needs. In addition to the standard communication of alarms and other information, if there is ever a problem with the Mission controller, a notification will be sent to make sure operators are immediately aware of the issue. These Mission dialers were recently installed at three lift stations, and since they have performed as expected, staff now plans to upgrade the remaining 15 lift stations as well by standardizing the stations with this proprietary monitoring equipment, thus making this a sole-source procurement.

A 3-year service package is included with this installation package for the necessary monitoring and cellular communications. This will replace the phone lines that are currently used at each lift station.

Because they are the sole distributor for this product in Michigan, Kennedy Industries would supply the equipment and perform the installations. The Purchasing Manager has been involved in the decision to use Kennedy Industries for this purchase.

RECOMMENDED ACTION: Approval to award a project to Kennedy Industries for the purchase and installation of Mission M113C Monitoring/Alarm systems at sixteen sanitary lift stations, in the amount of \$47,786.

	1	2	Y	N
Mayor Gatt				
Mayor Pro Tem Staudt				
Council Member Burke				
Council Member Casey				

	1	2	Y	N
Council Member Markham				
Council Member Mutch				
Council Member Wrobel				

Wireless Real-Time Alarm System

Identify problems quickly with real-time alarms

Purpose-Built Hardware Is Easy to Install

Each M110 is a complete wireless monitoring system. It includes the necessary hardware for installation, such as a cellular radio, enclosure, backup battery, transformer, antenna with cable and mounting hardware. Standardized RTUs speed and simplify installation.

Reliable Wireless Communications

RTUs operate on current generation (2G, 3G and 4G) cellular radios for dependable data transmissions. Mission maintains direct relationships with the largest cellular carriers in the U.S. and Canada to ensure the best service possible. There are no radios to program, cellular contracts to set up or radio licenses to purchase and maintain.

Real-Time Alarms for Problem Identification

Real-time alarms are delivered via phone, text message, email, fax, pager and even to your existing HMI software via an OPC data link. Each alarm is logged with a timestamp on your web portal for tracking and reporting. Settings can be tailored to better fit your alarming needs. The alarm call out schedule setup is easy, flexible, and intuitive. With a variety of options, you can design it to be simple or sophisticated. Numerous alarm features save time and money.

Managed Service - The Complete Package

The Mission service includes all communications, data storage, alarm call outs, reports and technical support. Alarm conditions are reported in real-time. Pump runtimes and pump data are summarized hourly. Analog data and RTU status are reported hourly. No engineering or programming is required and there are no networks to maintain.

Robust and Secure Web Portal

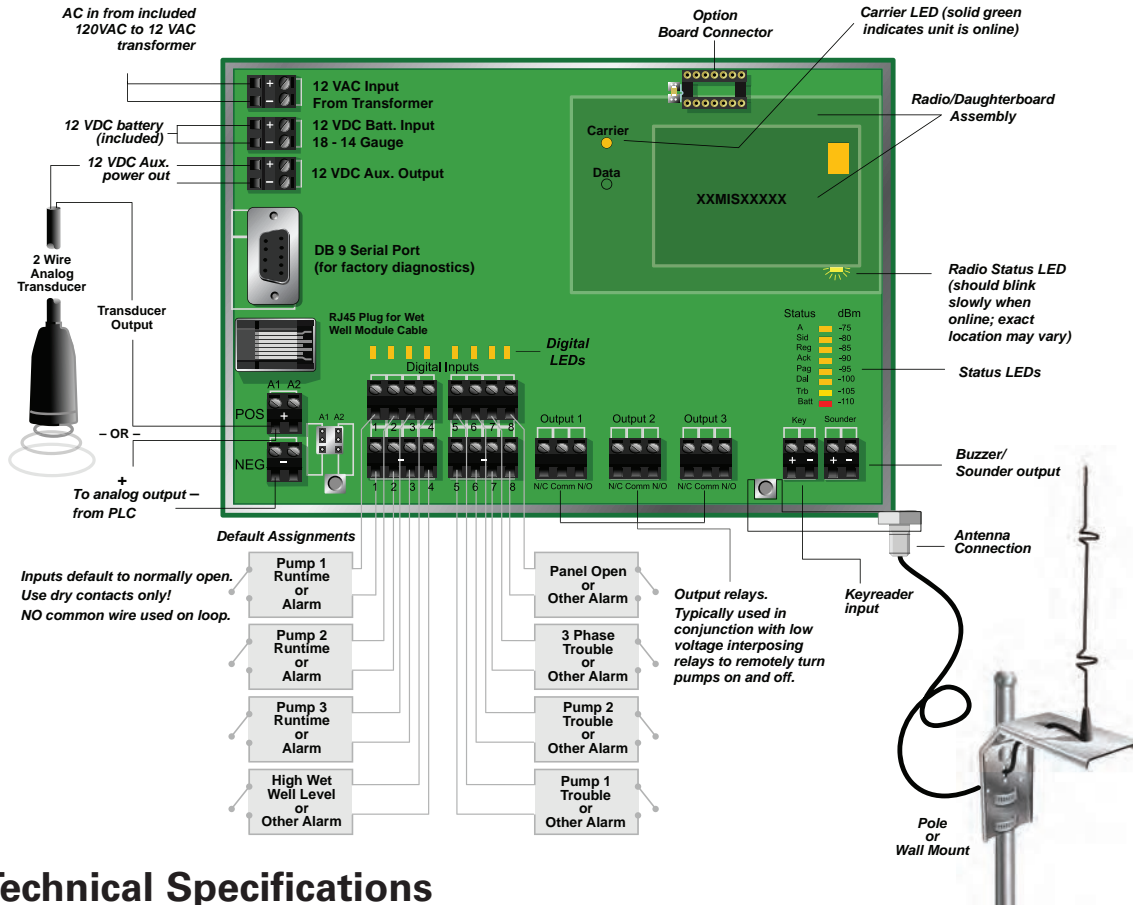
Data and reports are accessible on your secure web portal from any web-enabled device. This includes desktops, smartphones and tablets. Because the system is web-based, enhancements are immediately available and included at no cost. Tabular and graphical reports can be used for CMOM programs, compliance reports and comparative studies. Historical data is archived and never discarded. Refer to the Managed SCADA document for further details..

Flatpak NEMA 1 enclosure option shown

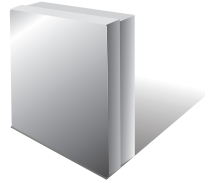


- Easy to Install
- Identify Problems With Real-Time Alarms
- Secure Data Transmission
- Managed Service Includes Communications, Alarm Call Outs and Web Portals
- Data and Reports Accessible from Desktops, Smartphones and Tablets

Details



Outdoor NEMA 4X enclosure:
Front sun shield
13.25"l x 6.25"w x 13.75"h
(with sun shield)



NEMA 1 enclosure:
11.375"l x 3.5"w x 11.25"h
Use indoors, wall mounting



Flatpak NEMA1 enclosure:
10.5"l x 1.5"w x 7.75"h
Use inside MCC cabinet

Technical Specifications

Hardware:

- 8 supervised digital inputs; 3 configurable to runtime/starts accumulators. Option board expands digital inputs to 16.
- 2 analog inputs: 4-20 mA or 0-5 VDC, 10-bit resolution, 4 real-time alarm set points per input. Option board expands analogs to 6.
- 4 built-in alarms (AC, low battery, temperature and communications fail).
- 1 electronic key reader for site activity tracking and service mode.
- 3 remotely controllable, form C dry contact relay outputs (1 amp @ 12 VDC), SPDT, N.O./N.C.
- Supervised 120 VAC to 12 VAC, 1.2 amp power supply with UL Recognized Class II / Class III transformer.
- 5 AH battery provides up to 40 hours of back up power.
- Includes Antenna Kit (PN R8005) with mounting bracket and 11' of cable. Omnidirectional outdoor antenna can be wall or pole mounted.
- 8 vertical LEDs for diagnostics.
- 8 digital input LEDs display input status and wiring faults.
- RJ45 connection for optional Wet Well Module (PN 651).

Radio:

- Units automatically self enroll with no startup delays. Radios make live, continuous, encrypted socket connections with all data and alarms being "end-to-end" acknowledged. Mission does not use SMS "text" messaging to transmit RTU data.
- AT&T, Verizon and Sprint radios have 128-bit encryption. All use TCP data transmission protocol.
- GSM: HSPA+ (ATT 3.5G and lower) Penta band (850, 900, 1700, 1900, 2100 MHz).

- CDMA: 1XRTT.
- 0.6 to 2 watt maximum transmit power and -112 dBm sensitivity.

Data Frequency:

- Digital alarm inputs and analog alarm set points: real-time.
- Digital runtime inputs: summarized hourly.
- Built-in telemetry and analog inputs: reported hourly.

Physical:

- Operating temperature -20F° to +160F°.

Hardware Options:

- Option Board - Digital Input (PN 650).*
- Option Board - Analog Input and Pulse Input (PN 459).*
- Option Board - Analog Output (PN 459).*
- Option Board - Pulse Input (PN 463).*
- Option Board - Analog Output and Pulse Input (PN O1000).*
- Wet Well Module (PN 651).
- Refer to Option Board and Wet Well Module data sheets for specifications; additional accessories described in the Accessories brochure.
- *One option board per RTU.

Software

- Requires Service Package - M110 Series (PN 51X).
- Optional SCADA Integration OPC Link (PN 586) to client/server HMI.

Warranty:

- RTUs include a 1 year manufacturing and material warranty.



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QUOTATION		
DATE	NUMBER	PAGE
11/10/2014	58827	1 of 1

B NOV200
 I City of Novi
 L ATTN: FINANCE DEPT.
 T 45175 WEST TEN MILE
 O NOVI, MI 48375-3029

Accepted By: _____
 Company: _____
 Date: _____
 PO#: _____

ATTENTION:
 TIM KUHNS P: (248) 735-5647 TKUHNS@CITYOFNOVI.ORG

WE ARE PLEASED TO PROPOSE THE FOLLOWING FOR YOUR CONSIDERATION:

CUSTOMER REF/PO #	JOB #	JOB TITLE	SLP	SHIPPING TYPE
QUOTE	58827	MISSION RTU	CKW / KES	FRT ALLOWED

QTY	DESCRIPTION
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- (1) MISSION - M113C FLAT PAK WIRELESS MONITORING SYSTEM WITH 12 DIGITAL, 2 ANALOG, AND 1 KEY READER INPUTS.
NET PRICE: \$1,195.00
- (1) LOW PROFILE/VANDAL PROOF ANTENNA W. 10 FT CABLE
NET PRICE: \$106.00
- (1) 1 YEAR SERVICE PKG. MODEL M113
NET PRICE: \$347.40 (\$28.95 PER MONTH)
- (1) INSTALLATION AND START-UP OF MISSION DIALER QUOTED ABOVE
NET PRICE: \$800.00

 ALTERNATE SERVICE PACKAGE: \$ 2,986 per station
 (1) 3 YEAR SERVICE PKG. MODEL M113 including 3 years Service
 NET PRICE: \$885.60 (\$24.60 PER MONTH)
 {15% PER YEAR SAVINGS OVER 1 YEAR PLAN}

PRICES QUOTED INCLUDE FREIGHT BUT NO TAX.

WE APPRECIATE THIS OPPORTUNITY TO QUOTE AND LOOK FORWARD TO BEING OF FUTURE SERVICE.

SINCERELY,

KEITH E. SIKAITIS/CKW
 KENNEDY INDUSTRIES INC.

This proposal is subject to Kennedy's standard terms and conditions of sale (rev'd 6/2014), which are attached or viewable at www.kennedyind.com. Terms of payment are net 30 days from date of invoice with 1-1/2% per month additional charge on unpaid balance. Credit card orders are subject to an additional 3% charge.
NO TAXES OF ANY KIND ARE INCLUDED IN THIS PROPOSAL